

FX

TRADER MAGAZINE

BUILDING ROBUST
FX TRADING
SYSTEMS

FINDING A GOOD
HISTORICAL DATA
SOURCE

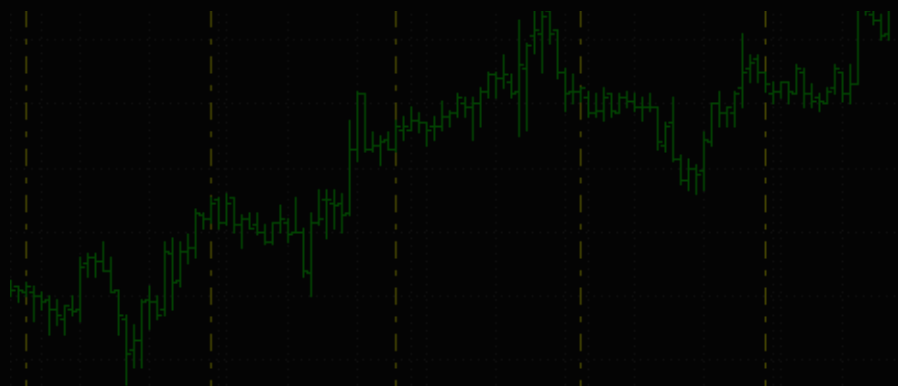
IDENTIFYING AN
EDGE

EXPLOITING THE
VOLUME PROFILE

KNOW YOUR
CURRENCIES

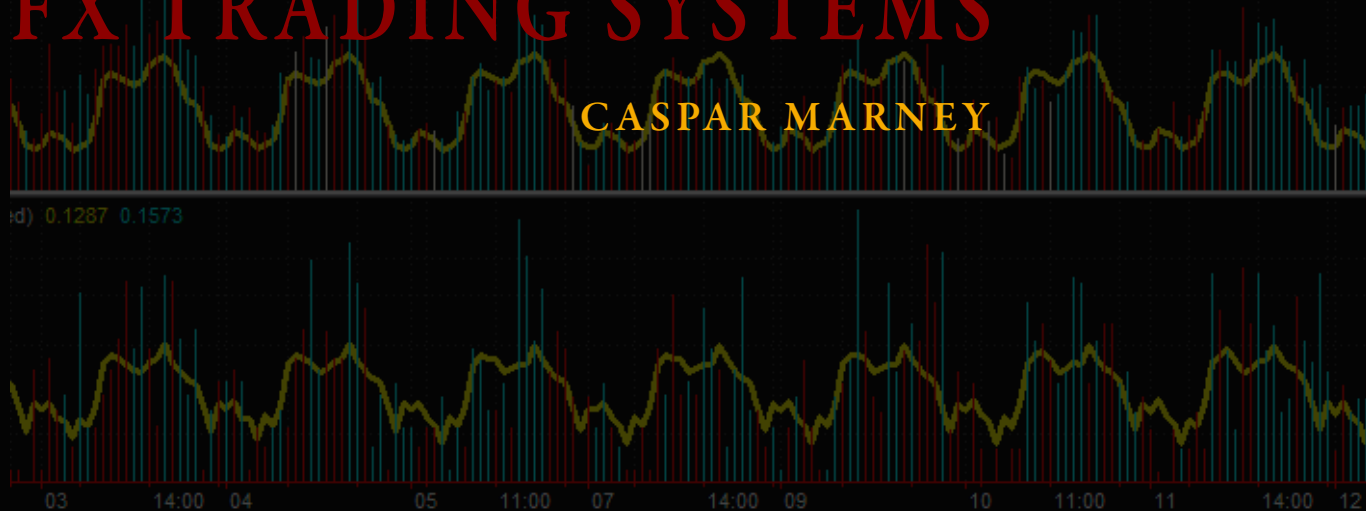
MARNEY VOLUME
AND RANGE
INDICATORS

PRICE UPDATES
AS PROXY FOR
FX TRADED
VOLUMES



BUILDING ROBUST FX TRADING SYSTEMS

CASPAR MARNEY





Building Robust FX Trading Systems

A PERPETUAL QUEST

There has been a perpetual quest by traders, to identify quantifiable trading patterns, ever since 'candlestick' charts were developed, on the world's first trading floor; the Dojima Rice Exchange, founded in Osaka, Japan, in 1697.

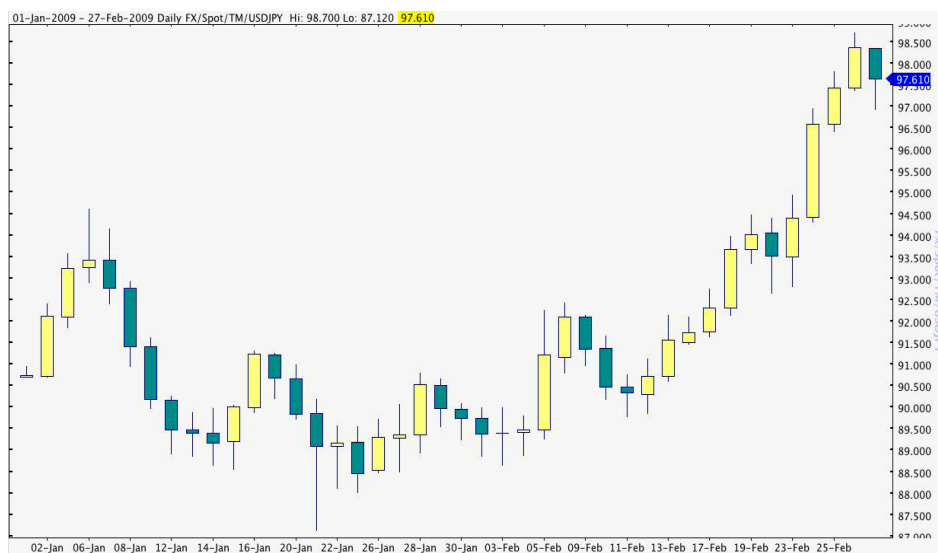
The advent of computers has made that quest considerably easier, but one factor has remained constant; markets are still traded by people. As long as that remains the case, they will always be driven by only two factors, namely fear and greed. There have been many observations made about the predictability of crowd behaviour, but perhaps the most famous and often quoted is that of the famous German poet, and philosopher, Friedrich von Schiller who said,

'Anyone taken as an individual is tolerably sensible and reasonable - as a member of a crowd, he at once becomes a blockhead.'

THE HOLY GRAIL

However, although there is certainly non-random behaviour in the financial markets, equally there is almost certainly no 'Holy Grail' or 'secret formula', that even the most successful quantitative funds have discovered. If that were the case, there would be no need for them to trade so many instruments, over so many time frames, with many different models, and to focus so much of their resources on efficient execution (which will be covered in a later article).

After many failed attempts, when the author finally began to post some very consistent returns, over a two year period, a good friend inquired what his secret was and what he had discovered. He replied that he hadn't found any secret to the markets, discovered anything new, nor stumbled upon any 'Holy Grail'. He had just identified a few small, robust, edges, which were traded across as many crosses as possible, to which the very astute response came, 'That is the Holy Grail'.

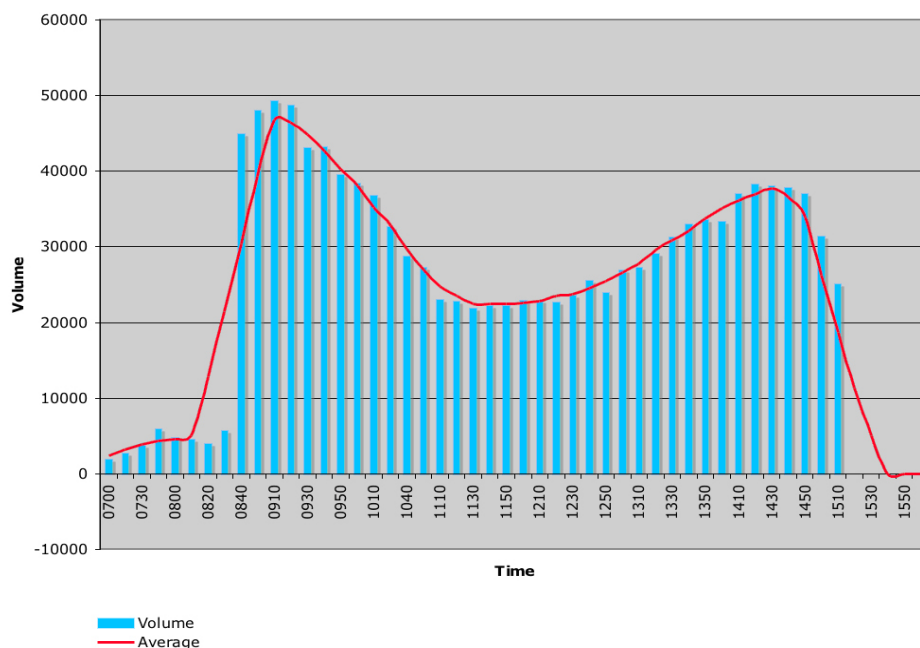


UNDERSTANDING THE ODDS

A casino only has a small edge on any given spin of the roulette wheel and will lose many times in a night, and indeed many times in a row, but statistically, it will win overall, over time:

e.g. A roulette wheel typically has 38 slots with 2 zeros. This gives the house an edge of $\frac{2}{38} \times 100 = 5.26\%$, when players bet on red or black. Even such a relatively small edge produces a substantial and incredibly consistent revenue stream for the casinos and their shareholders. The more times the wheel is spun and the more bets are made, the more the casinos probability of winning tends to 100%.

This is exactly what the systematic trader should be seeking to achieve – identifying and exploiting a small edge, as many times as possible; being the casino. Therefore, the first step in developing a robust system has to be identifying an edge. To do this, the



main tools of any system developer are good historical data and software with which to analyse it. There are a number of excellent sources of data and software, readily available now. This is a huge advantage, compared to even relatively recent years, when it was very hard to come by, particularly for foreign exchange data, with no central exchange, the dominance of voice brokers and a very fragmented market. The rapid increase in computing processor speed is also a huge advantage.

Once we have those tools in place, the next task is to quantify trading ideas and this is where any system developer will soon be able to relate to the famous Thomas Edison, inventor of the light bulb, who famously said,

'I would construct a theory and work on its lines until I found it was untenable. Then it would be discarded at once and another theory evolved. This was the only possible way for me to work out the

problem... I speak without exaggeration when I say that I have constructed 3,000 different theories in connection with the electric light, each one of them reasonable and apparently likely to be true. Yet only in two cases did my experiments prove the truth of my theory.'

SUCCESSFUL TRADING SYSTEMS

Unlike Edison, we have the advantage of knowing that profitable trading systems can be developed, as there are a number of proven systems already in existence, which one can easily test, such as the 'Channel Break Out' (CBO) system, made famous by the 'Turtle Experiment', where Richard Dennis and William Eckhardt had a wager about whether successful trading could be taught (and proved that it could). Those same channel break out/trend following, techniques have been exploited by many successful funds. The 'Opening Range Break

Identifying an Edge

'To succeed as a trader, it is absolutely necessary to have an edge. You can't win without an edge... incidentally, if you don't know what your edge is, you don't have one.'

Jack Schwager

In the previous two articles in the series, we discussed the need to identify a robust edge and that it must be easily explained, with a sound rationale and that it needn't be a significant edge, to produce incredibly significant and consistent returns. Just as a casino's edge is very small, when exploited many, many times, the net result is incredibly profitable.

We then discussed the need to have good, clean historic data, with which to test ideas, as inaccurate data with gaps or spikes, could easily lead to misleading or wrong results.

In this article we build on those foundations and explore the development of some ideas, from conception, through to creating trading rules, testing them and determining whether they give us a robust edge.

SUBJECTIVE ANALYSIS AND HIGH SUCCESS RATE TECHNIQUES

When I first became a trader, it never ceased to amaze me how subjective the vast majority of analysis was. The number of ideas that are in common use, many of which can be proven to be flawed, or cannot be objectively tested, upon which millions is risked daily, is nothing short of astounding.

Read almost any technical analysis on the market, easily

accessible via a quick search of the web and one will find countless examples such as, 'the oscillator is overbought and therefore the market is a good sell here', or 'the market has breached the 10 day or 200 day moving average', or 'the price is at an extreme level, testing the lower Bollinger Band'.

The reason that most of these views continue to be followed is summed up beautifully by the legendary William Eckhardt, of the famous Turtle Trading Experiment,



'Since most small to moderate profits tend to vanish, the market teaches you to cash them in before they get away. Since the market spends more time in consolidations than in trends, it teaches you to buy dips and sell rallies. Since the market trades through the same prices again and again and seems, if only you wait long enough to return to prices it has visited before, it teaches you to hold on to bad trades. The market likes to lull you into false security of high success rate techniques, which often lose disastrously in the long run. The general idea is that what works most of the time is nearly the opposite of what works in the long run.'

The amount of books which also teach these 'high success rate techniques, which often lose disastrously in the long run' is equally astounding. Let us take one of literally countless possible examples from one of the better known trading strategy platforms of a Bollinger Band strategy:

Are price updates a good proxy for actual traded volume in FX?

INTRODUCTION

The objective of this article is to analyse the relationship between actual traded volume in the FX markets and its relationship to price updates, or 'tick' volume, over both time and across currency pairs, to determine whether there is a high correlation between the two.

We do not believe that the research has been published before. Given the conclusive results, we hope it proves an interesting addition to the debate, as to whether tick volume can be used as a proxy for traded volume in the FX markets.

FX VERSUS FUTURES MARKETS

Volume information has been proven in many studies to provide an edge in trading. FX Traders have therefore been at a disadvantage to Futures traders, as volume information is not been readily accessible in the FX markets, let alone in real-time.

As discussed in previous articles, Futures markets, by definition, are traded on an exchange. Therefore, all

transactions for a particular instrument are traded on a central exchange making definitive, real-time, volume information readily available.

By contrast, the FX markets are incredibly fragmented, traded between banks, financial institutions, hedge funds,

proprietary trading firms and individual traders on a twenty-four hour basis through a vast array of Electronic Communication Networks (ECN's) and direct inter-bank relationships.

Therefore, there is no way to accurately record total FX volume in real time, as there is in the financial Futures markets, hence the debate as to whether the number of price updates can be used as a proxy for volume.

PRICE UPDATES AS A PROXY FOR VOLUME

One way that activity can be gauged in the FX market is by recording

the number of price updates, per unit of time, as more trades should equate to more price updates. However, there has been a great deal of debate about the accuracy of price updates as a proxy for volume and there are



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