

Macro Hive Prime: The Rise of the Algo-Shepherds

(Thorsten Wegener, info@macrohive.com, 9 May 2023)

Why does the option guy feel the need to write about algorithmic trading you might ask? Because I think my ilk is kind of responsible, some say in a big way, for the Frankenstein monster that seems to run markets to a large degree nowadays. I will explain later in the article where option traders get their 'fair share' of blame for what I (grey hair and all) see as an abomination of the normal flow of markets, if there ever was one.

Algorithms: Where Did It All Begin?

First things first: what do I mean when I talk about algorithmic trading? Well, algorithmic trading has been around since people started selling food for 'favours', so pretty much since the emergence of homo sapiens. (On a side note, here you have the proof that prostitution is not the oldest trade in the world. It must be the profession of fisherman, hunter or gatherer. You would only trade sexual favours for something desirable, which of course had to be created first).

In the beginning, there were no supercomputers or lightspeed execution facilities available, so the original trader had to use the tools available at the time – his or her brain.

Clever humans in their trading endeavours realized, pretty much straight from the start, that certain products and services fetch better prices under certain conditions. Also, that these conditions, if observed regularly and reliably, would give the smartest among the crowd an economic advantage. These discoveries were permanently stored in the operating system between our ears.

Now, let us skip a few 10,000 years and look at financial markets. It will come as no surprise to you that the vast majority of market participants can at best expect moderate market returns, most of the time less, and a few silverbacks make the really juicy returns.

They do this because of a highly developed sense of pattern recognition. This might be macroeconomic understanding, a keen sense of the technical condition of specific markets, or the correct interpretation of socioeconomic trends and the consequences for society.

However, one does not have to be a genius to observe the continuous, wave-like repetition of the actions of those who participate in society at large or the financial community specifically. From timeframes of decades down to one-minute charts in the day trading community, the perceived randomness of eternity gets regularly interrupted by spouts of interpretable signals.

Really smart people told me this is the fractal nature of markets. When my students ask me how to make money in markets, I always reply like this: 'We want to do what everybody else is doing, only earlier.'

First Principles

There are a few principles, if followed correctly, that make this difficult task a lot easier, and they are not even complicated.

Liquidity

Liquidity is, in my humble experience of now three decades buying and selling stuff, the most important predictor of market direction. It is not the liquidity being traded right now on your screens in front of you. Rather, it is those places where liquidity lurks in the future, eagerly waiting to be used and abused, no matter whether it is to the upside, to the downside, or slap-bang in the middle of a trading range of a specific market.

Why? Because this is where the silverbacks I mentioned above, the few who consistently make money, want the markets to be. In other words, I would rather make \$1 a thousand times than 10 bucks only ten times. This happens where liquidity and stupidity is plenty.

Informational Advantage

Informational advantage, not in an insider way, is the next big principle that slowly drags my people (professional traders and investors) into the picture.

When I learned the trade many moons ago, I was able to observe and understand with the help of the then already grey-haired dudes (no ladies then) that most market participants love to make the same mistakes over and over again. You can call them dilettantes, dumb money, or sheep. I prefer the word novice even though there are, for sure, a lot of novices around who have worked in markets for decades. Now, you can decide to protect them from themselves or take advantage of the situation.

In a nutshell, I believe that the Hobbs vs Rousseau controversy about the inherent kindness of man has been conclusively settled (switch on the television if you do not believe me). The shepherds in this scenario are no longer the benign protector of the flock, but rather the egotistical facilitators of exploitation of the system. Of course, they will not harm the whole herd, but hey, occasionally there might be some slippage...

If you sit in the middle of the tangled web of global money flows and liquidity, your informational advantage allows you to softly nudge your well-fed sheep, grazing on the meadow, into the direction where you can shear the wool right off their backs.

Shearing the Sheep

At the beginning of my career, we did this manually. We knew where the herd would get excited, and we ever so gently facilitated their wishes.

I give you an example. Imagine new all-time highs in a crummy stock – the papers have been telling the retailers for years that this is always a good idea to go long. The market seems to be in a favourable condition, their neighbour has allegedly made a killing in the market this year, and Jim Cramer issues a strong buy recommendation. Finally, foaming at their mouths, they call their broker and scream to pay any price just to get them on board the gravy train.

No problem, we can help. The liquidity is not where the stock is cheap; it is where the frenzy takes place.

That is what algos like 'Skynet' are facilitating. They are steering the markets in the direction of liquidity to get the most bang for their buck. They are completely indifferent to valuations, and, in my opinion, this explains a lot of the nonsensical moves we can see in markets today.

Do not get me wrong. We have always seen aberrations like that – and at least in part, we were responsible for these. But we are now experiencing a technological upgrade to facilitate and amplify this market behaviour. In the meantime, I want to do what the algos do, just a bit earlier.

So, who are the algo boys and girls hunting the weak, feasting on the tears of so many investors?

The Sorcerer's Apprentice

In Goethe's famous poem 'The Sorcerer's Apprentice', the apprentice enchants a broom to do his chores. But the summoned ghosts take on a life of their own, and it almost ends terribly. I think we, the options boys and girls, market-makers by profession, are partly to blame.

If you are tasked to make markets for 10, 15 or 20 underlying securities, you need some support. We got this support from the first quants we hired. Of course, they were not called quants then. They were super-smart folks, mostly mathematicians or physicists, who could converse fluently in programming languages and understood what we were doing and still wanted to work with and around us. They programmed the first 'quote machines' for us.

These programs automatically bought and sold options. And, as long as you were running them on the correct parameters like yield curves, volatility surfaces, etc., they allowed you to focus on wherever the action was.

This was sufficient for a while, until our sorcerers' apprentices used their big brains to make them better, faster and smarter to work under more difficult conditions, and, as I can confirm, 'every little helps'. I do not have to elaborate too much about the exponential progression that followed to deliver us all into the hands of the algorithmic trading we can observe today.

Introducing AI

What will happen if AI starts dominating algorithmic trading? Nothing really. The smartest machine will kick the slower kids around until an even smarter kid comes along and the story repeats. I just need to understand what the smart kid is doing and do it as well; human hubris will always supply the sheep.

Can the market ever get solved like ticktacktoe by some super-smart artificial intelligence? No.



If you could store one bit of information on every atom in our universe, it would run out of storage to solve chess, with its meagre 64 squares and 32 figures. And I believe markets are a bit more complicated – after all, they are based on organic intelligence.

However, remember that at least so far, the decision points are mapped on the behaviour of the original sources of trading decisions: us.

I was reminded of that recently when one of my best traders, who is killing it in his daily algo rodeo, asked me whether I had any idea why at specific times the algos do not seem to herd the sheep and markets move, according to algo logic, unexpectedly. You can see that when crucial data hits the markets.

My analogy would be that the shepherds take a break when a pack of wolves has entered the flock – no point in trying to be clever or brave. And why, he asked, usually around midday, do the algos switch off?

Well, that used to be the time when Thorsten, Michael, Hubert and Markus went to lunch and switched the machines off. Some redundant pieces of old code seem to still be living in the machine.

Thorsten Roland Wegener spent twenty years trading equity derivatives and was a partner at Bear Stearns. Currently, he teaches as well as cooking, driving, and cleaning lots.

(The commentary contained in the above article does not constitute an offer or a solicitation, or a recommendation to implement or liquidate an investment or to carry out any other transaction. It should not be used as a basis for any investment decision or other decision. Any investment decision should be based on appropriate professional advice specific to your needs.)