

Twitter Thread by Kirubakaran Rajendran



Kirubakaran Rajendran

@kirubaakaran



Earlier many traders were trading based on discretionary without any rules based approach. Now a lot of traders are ready to move to algo trading but confused with a lot of options. When you are bombarded with tons of different trading systems, how do you choose the best one?

Many traders still think winning accuracy is the most important parameter in a trading system. But is it really true? Let's check this example. Consider, we have three different trading systems.

System A,

System B and

System C.



System A has 90% winning accuracy,

System B has 10% winning accuracy and

System C has 50% accuracy.

When given a choice, most traders will opt for System A as it has the highest winning accuracy of all with 90%.

But System A is not the right choice. The average profit in a winning trade is Rs.1000, that is 90% of the time System A is capable of making Rs.1000 profit. But remaining 10% of the time when the system is making a loss, it loses a lot. So after 100 trades, net result is -10,000

System B, The average profit in a winning trade is Rs.10,000, that is 10% of the time System B is capable of making Rs.10K profit, which is ten times higher than its losing trade. The average loss in a losing trade is Rs.1,000 but 90% of the time the system will continue to lose.

It's like buying the OTM option on expiry day which is trading at Rs.2, option buyers tend to buy such strikes thinking if there is an extreme move in the index on expiry days, this Rs.2 option can move to Rs.200, giving exponential returns. But that doesn't happen very frequently

So after 100 trades, we will end up with a profit of Rs.10,000 with System B. In spite of losing 90% of the time, this system ended up in profits after 100 trades, because of positive expectancy. But practically System B is hard to trade in real time.

System C has winning accuracy of 50% only but its average profit is 2x of its average loss. When the trade goes right it makes Rs.2000 and when it goes wrong it loses only Rs.1000. So after 100 trades, System C is able to generate profit of Rs.50,000. Which is the highest of all.

If you simply focus on winning percentage alone, we might not end up with a correct trading system. Along with win %, risk reward ratio should also be given equal importance.

Risk Management:

Just because your back test says that you can have 5 continuous losing streaks, it doesn't mean that at the max you are going to face only 5 back to back losing trades. Statistically any trend system which has only 40% winning accuracy can have 21 losses in a row

Imagine facing back to back 21 losses? Will you be able to handle it? Yes, if you plan your risk management well in advance. If you are risking 1% of your capital in a trade, then even such 21 losing streaks will not do much damage to your trading capital.

So your risk per trade should be decided based on such losing streaks probability instead of solely relying on your back test parameter.

Losing Streaks Probability

Losing Streaks

What is the probability of a losing streak? If your strategy has a win rate of 60%, there is a chance you will experience a streak of 12 losses in a row.

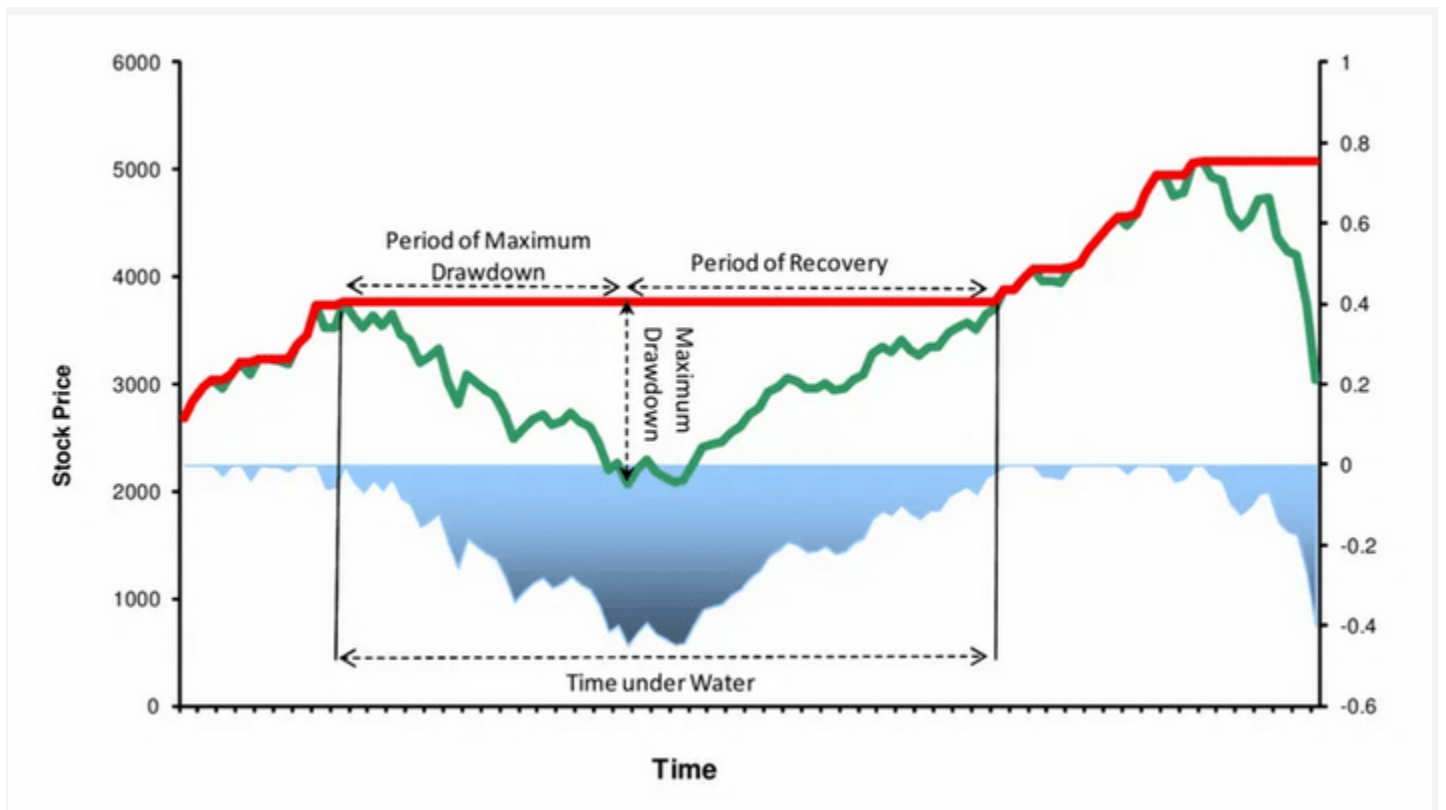
Win %	Probable streak
40%	21
45%	18
50%	16
60%	12
70%	9
80%	7
90%	5

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Time Draw down:

Many traders tend to ignore another important factor called time draw down. That is, how many days a system can underperform? How many months can the equity curve stay under water? Imagine making zero returns for 4 months with your intraday trading system?

You will be placing the trades every single day, only to regret later after 4 months when the system is still in the drawdown phase. During such periods many traders will lose faith in their system and tend to abandon the system thinking it stopped working.



So larger this time period, you might find it psychologically hard to trade that system. Trend following systems fall into this category, when markets are stuck in a sideways phase without a clear direction, trend systems will be affected badly and may continue to underperform

The key to survive such time drawdown period is to trade with mix of uncorrelated strategies. When choosing a trading system, if you give importance to above three parameters you can end up finding the right trading system for you. Blog post -<https://t.co/zUq03oMhgi>