Risk Manager 2.0

Dynamic risk management, adjustable position sizing and thoughts about account size

The ultimate guide on how to

manage your risk like a professional

Contents – Become a professional risk manager

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Become a professional risk manager

Every trader will reach the point where he starts looking for answers away from entry methods and new trading strategies. Ways to optimize risk and money management is what those traders are then trying to do usually.

Whereas risk management describes how you apply the principles of reward:risk ratios and manage the expectancy of your trading approach, money management defines how you chose how much you risk on your trades and how it impacts overall account volatility and drawdowns. We'll start by exploring what the reward:risk ratio really does, how it impacts your trading performance and then look at money management and position sizing techniques and principles.

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1. Getting started with the Reward:Risk ratio (RRR)

The reward-risk ratio is a very controversially discussed trading topic and while some traders claim that the risk reward ratio is totally useless, others believe it is the Holy Grail in trading. In the following article we shed light on how to use the reward-risk ratio correctly, share some lesser known facts about the concepts and demystify the ideas behind reward-risk ratio.

"Frankly, I don't see markets; I see risks, rewards, and money." – Larry Hite

Myth 1: The Reward:Risk Ratio is useless

You often read that traders say the reward-risk ratio is useless - they are absolutely right. The reward-risk ratio *alone* has no value if you analyze it by

itself without setting it in relation with other statistical figures from your trading performance.

However, if you know how to use the reward-risk ratio properly, it is one of the most important metrics in your daily life as a trader. Without knowing the reward-risk ratio of a single trade, it is literally impossible to trade profitably.

Myth 2: Good vs. bad Reward:Risk ratio

The second myth around reward-risk ratios concerns recommendations of a certain number for the optimal risk reward ratio. Do you also believe that taking trades with a reward-risk ratio of less than 1:1 cannot result in profits, or that the professional traders only take trades with a risk reward ratio of 2:1 or higher?

Whenever you read something like that, leave the website immediately. The optimal risk reward only depends on your own trading strategy and your performance, and on nothing else. Whereas one trader will only be able to trade profitably with a reward-risk of 3:1 or higher, another trader can comfortably take trades with a reward-risk of less than 1:1 and still make money consistently. As we will see later, the reward-risk ratio can only be interpreted if you set it in relation to your winrate; therefore, recommendations of the 'optimal risk reward ratio' are useless.

Myth 3: You can trade with a mental stop loss order

Once a trader is aware of how the concept of the risk reward ratio works, he will see that trading without having an exact and fixed stop level is impossible. Only if you know where you will place your stop loss order before entering the

trade, you are able to calculate your reward-risk ratio, the required winrate and judge whether a trade has a positive expectancy or not.

What the Reward:Risk ratio really tells you

When you know the risk reward ratio of a single trade, you can easily calculate the required winrate. You can then compare the required winrate with your overall historical winrate to judge whether a trade has a positive expectancy or now.

> Required Winrate = 1 / (1 + Reward:Risk)

For example, if you enter a trade with a 1:1 reward-risk ratio, your overall winrate has to be higher than 50% to be a profitable trader: 1 / (1+1) = 0.5 = 50%

If you keep taking trades where your required winrate is greater than your actual winrate, you will inevitably lose money long term.
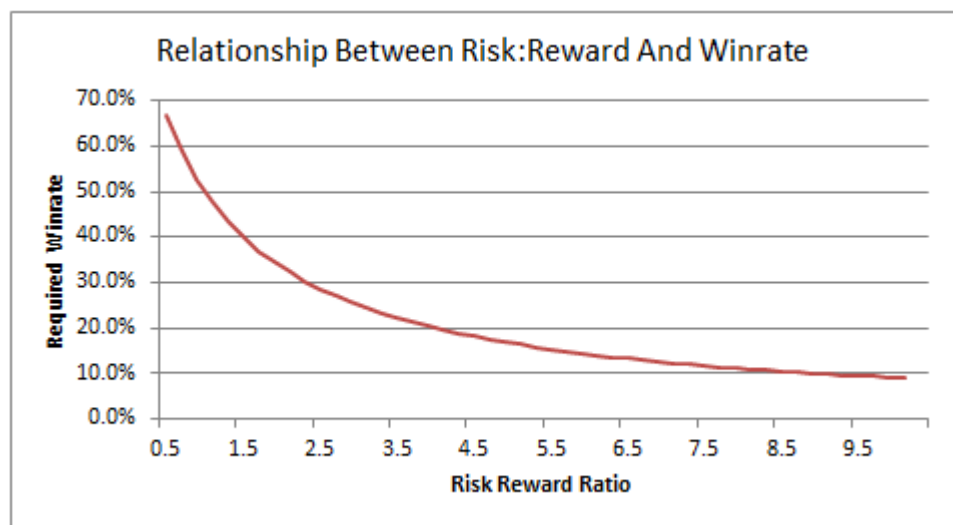
Expectancy crash-course

The concept of expectancy is a very important one in trading because it will, ultimately determine whether you are a profitable trader or not. In basic terms, expectancy measures if your trading metrics such as winrate and reward-risk ratio allow you to make money over the long term. Let's take a look at what this means:

System 1: Winrate = 60% (Lossrate = 40%)| Average Reward-Risk Ratio = 1.5

Expectancy: [40% * (-1)] + [60% * (1.5)] = +0.5

This means that over the long-term, your system has an expectancy of 0.5 times your position size. So if you risk 2% per trade, each trade has a positive expectancy of 1%.

System 2: Winrate 50% (Lossrate = 50%) | Average Reward-Risk Ratio = 0.8

Expectancy: [50% * (-1)] + [50% * (0.8)] = -0.1

The second system has a negative expectancy because, on average, you lose more money on your losing trades than what you can make on your winners and you don't have enough winners to offset the difference.

As we have seen above, the reward-risk ratio gives you the minimum required winrate to achieve a positive expectancy. You can also approach it from the other side and use your historical winrate to determine the minimum reward-risk ratio you need to aim for.

Don't justify bad trades with large reward-risk ratios

Now most traders will think that by setting a wider take profit, or a closer stop loss they can easily increase their risk reward ratio and, therefore, increase the expectancy of their trading performance. But is this really possible?

"It is essential to wait for trades with a good risk / reward ratio. Patience is a virtue for a trader." – Alexander Elder

Using a wider take profit order means that price won't be able to reach the take profit order as easily and you will most likely see a decline in your winrate. On the other hand, setting your stop closer will increase the amount of premature stop runs and you will be kicked out of your trades too early although you could potentially increase your reward-risk ratio.

Amateur traders also tend to justify bad trades with a large reward-risk ratio. Your trading rules are there for a reason and violating your trading rules and just aiming for a larger reward-risk ratio describes the gambling and amateur mindset.

Professional traders about Reward:Risk ratio

"You should always be able to find something where you can skew the reward risk relationship so greatly in your favor that you can take a variety of small investments with great reward risk opportunities that should give you minimum draw down pain and maximum upside opportunities." – Paul Tudor Jones

"It's not whether you're right or wrong that's important, but how much money you make when you're right and how much you lose when you're wrong." – George Soros

"Paul Tudor Jones [had a principle he used to use] called 5:1. […] he knows he's going to be wrong [sometimes] so if he loses a dollar and has to spend another

dollar, spending two to make five, he's still up $3. He can be wrong four out of five times and still be in great shape." – Anthony Robbins on Paul Tudor Jones

"The most important thing is money management, money management, money management. Anybody who is successful will tell you the same thing." – Marty Schwartz

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2. Dynamic RRR

Without a doubt, managing risk is one of the most important tasks in the daily life of a trader – if not THE most important one.

But managing risk goes much deeper than just knowing how many contracts to buy and how to set a stop loss order. In trading, the term risk includes the expectancy of trades, the reward:risk ratio and its dynamic nature.

You don't know how to handle unrealized profits and you still believe that unrealized profits are not yours? You are not alone. Not knowing how to manage risk is setting yourself up for failure. That's where this article comes in.

The entry - The starting point of each trade

Let's start by looking at the entry point of a trade. Assume that we enter a long trade at $100 with a stop at $90 and a take profit at $120. A maximum risk of $10 and a potential profit of $20 gives the trade a reward:risk ratio of 2:1.

Entry long at $100. Stop loss at $90. Take profit at $ 120. >> Reward:risk ratio of 2:1

Now we take a look at what happens during a trade with regards to risk, how the dynamic reward:risk ratio influences the parameters, how risk changes when price moves and how trade management plays into this equation.

The initial trade and risk parameters

➡ Take Profit: $120

➡ Entry: $100

➡ Stop Loss: $90

Pot. Reward $20
Risk $10
Reward:Risk 2:1

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Your risk changes when price moves

1 - Price moves into profits

When price moves in your favor, the distance between your stop loss and your entry increases; and the distance to the take profit order decreases. Thus, the reward:risk ratio becomes smaller.
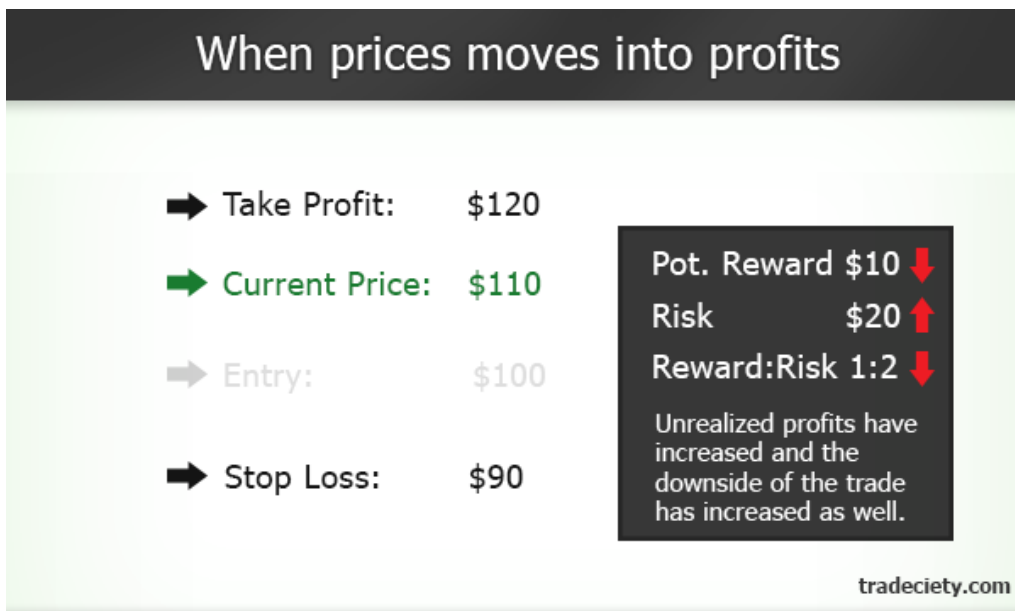
Price moves up to $110, your stop is still at $90 and the take profit is at $120.

>> The reward:risk ratio is only 1:2 – it has completely reversed.

> As price moves in your favor your risk parameters become worse.

A smaller reward:risk ratio means that the potential loss becomes greater. In our scenario the trader now risks $20 - $10 of which are unrealized profits - to make an additional $10.

As the price keeps moving in your favor, the risk parameters become worse. You risk giving back all the unrealized profits and the additional amount you can make (based on your take profit level) becomes smaller with every tick. The worst moment in the lifespan of a trade is when price is about to hit the take profit order and you risk giving back everything, while the additional profits are very small.

When prices moves into profits

Take Profit: $120

Current Price: $110

Entry: $100

Stop Loss: $90

Pot. Reward $10
Risk $20
Reward:Risk 1:2

Unrealized profits have increased and the downside of the trade has increased as well.

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Never gamble with your unrealized profits.

Lesson: Treat unrealized profits as if they are already yours. Do not risk giving it all back just to make a little bit more. Especially if you are not 100% convinced about the market conditions, do not just passively wait and see what happens. Never gamble with unrealized profits.

2 - Price moves against you

Based on what we have just said, you probably think that when price moves against you, the conditions improve. But it is not entirely true.

Price falls to $95 with a stop still at $90 and the take profit at $120. >> The reward:risk ratio is now 5:1. But, at the same time, the price has to travel much further: $25 instead of the initial $20 which is 20% more.

At this point, a trader has to make a decision whether he believes that his long trade idea is still valid or not. The additional distance price has to travel is something most traders do not take into account but it impairs the conditions of the trade.

The biggest mistake traders make in such a scenario is to wait to get out for break-even. Remember that your initial trade idea was based on price going to

$120. If all you think about during a loss is to get out at $100, you better get out now and do not risk losing more.

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Managing your risk - Trade management decisions

(1) Trailing a stop

When price has moved in your favor, think about trailing your stop to protect profits and to improve the risk conditions of your trade.

When trailing a stop, always use reasonable levels and protect your stop.

When price is at $110, you could trial your stop to $100 with your take profit still at $120.
>>The reward:risk ratio increases to 1:1.

When trailing a stop, the most important aspect is to choose a **reasonable** approach. There is no benefit in trailing a stop too soon and too close and running the risk of experiencing a squeeze during a retracement. The biggest mistake traders make is trailing a stop to break-even without really having a plan.

Trailing a stop to improve risk parameters

➡ Take Profit: $120

➡ Current Price: $110

➡ New Stop Loss: $100

➡ Stop Loss: $90

Pot. Reward $10 ➡
Risk $10 ⬇
Reward:Risk 1:1 ⬆

Trailing a stop protects profits and improves the risk parameters.

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(2) Closing a profitable trade ahead of target

How often do your close your trade ahead of the actual take profit order? If you are like most traders, you probably do it all the time.

If you close your trade at $110 you have reduced your initial reward:risk of 2:1 to 1:1.

The old saying "you can't go broke taking profits" is not true and it is a myth that has been around for decades. If a trader regularly closes his trades too early, he reduces the expectancy of his system. You **can** turn a potentially profitable system into a losing one by cutting your profits too soon.

You can go broke taking profits. You have to maximize your winners.

(3) Cutting a loss ahead of the stop loss

Cutting a loss ahead of your stop is something traders don't do often enough. The reason is that once the price has moved against you, the need to exit a trade is not obvious. If you are down already, losing a little bit more does not seem like a big deal.

A trader who closes his loss at $95 instead of waiting to see price hit his stop at $90 has cut his potential loss in half.

In the previous example we said that taking profits too early can ruin a trading system. In this case, taking losses early can improve a trading system.

(4) Adding to a losing trade

This is something that should be avoided in 99% of all situations. Although adding to a losing trade looks good on paper, it can destroy emotional capital and wipe out whole trading accounts.

Adding to a losing trade increases the reward:risk ratio. But…

But – and this is a very big but - as we have said previously, price has to travel a much larger distance once price has moved against a trader. Adding to a losing trade does not really improve the situation as the trader now has two positions which have to travel a much larger distance to the take profit.

Traders often lose focus when adding to losses and forget their original long-biased trade idea.

(5) Adding to a winner

Opening a new position with the same stop loss and take profit order as the first position, after price has moved into your favor, reduces the expectancy of the trade. The reward:risk ratio of the second trade is smaller compared to the first one.

Adding to a winner reduces the overall reward:risk ratio

However, scaling into a winning trade can be a good strategy if it is done with care and planned ahead. On the other hand, a trader who is not aware that he is worsening his so far profitable trade, should avoid scaling in.

Conclusion: risk is a dynamic concept

The purpose of this article is to illustrate the concepts of the dynamic reward:risk ratio while linking it to the often misunderstood aspect of unrealized profits. The traders who understand how price movements and trade management decisions impact the risk parameters of their trades can sharpen their risk management skills.

To help you make better trading decisions, always keep the following points in mind:

- When price moves in your favor, your Reward:Risk ratio decreases and the size of unrealized profits you could lose increases.
- The worst time in the lifespan of a trade is just before price reaches the take profit. At that moment, you risk losing the most amount of unrealized profits and only have the opportunity to gain a small amount of additional profits.
- When price moves against you, the Reward:Risk increases BUT the distance price has to travel increases.
- Trailing a stop improves the Reward:Risk ratio but you run the risk of being taken out by retracements if you move the stop too close.
- Closing a trade ahead of the target reduces the expectancy of your system. You CAN go broke taking profits
- Cutting a loss ahead of the stop can increase the expectancy of your system
- Adding to a losing trade looks good on paper but it can destroy emotional capital
- Adding to a winner can decrease the expectancy of the system if it is done without a plan

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3. The 5 money management and position sizing secrets of the Turtle Traders

The Turtle traders were a legendary group of traders coached by two successful traders, Richard Dennis and William Eckhardt. They selected 10 people (turtles) with little to no prior trading experience and turned them into winning traders by providing them with a set of very precise trading rules.

The building block of the turtle traders' success was their advanced risk and money management and their position sizing approach. The following 5 principles explain the most important risk and management principles of the turtle traders' strategy.

1. Volatility based stop loss orders

The turtle traders used a volatility based stop loss order, which means that they determined the size of their stop loss based on the average ATR indicator (Average True Range). This also means that for every trade, they used a different stop loss size to react to changing market conditions.

The ATR allows you to adjust your stop based on volatility.

The charts below show why this stop method is so powerful. Both charts show a breakout scenario with very different price dynamics. Whereas the left chart has very small candlesticks and a low ATR (low volatility), the right chart shows larger candlesticks and a higher ATR value (high volatility). How much sense would it really make to use the same stop loss technique on both breakout trades? Correct, it wouldn't make any sense. A trader should use a small stop loss for the trade on the left chart and a wider stop loss on the right chart to maximize his reward:risk ratio and to minimize the chances of getting stopped out during insignificant retracements.
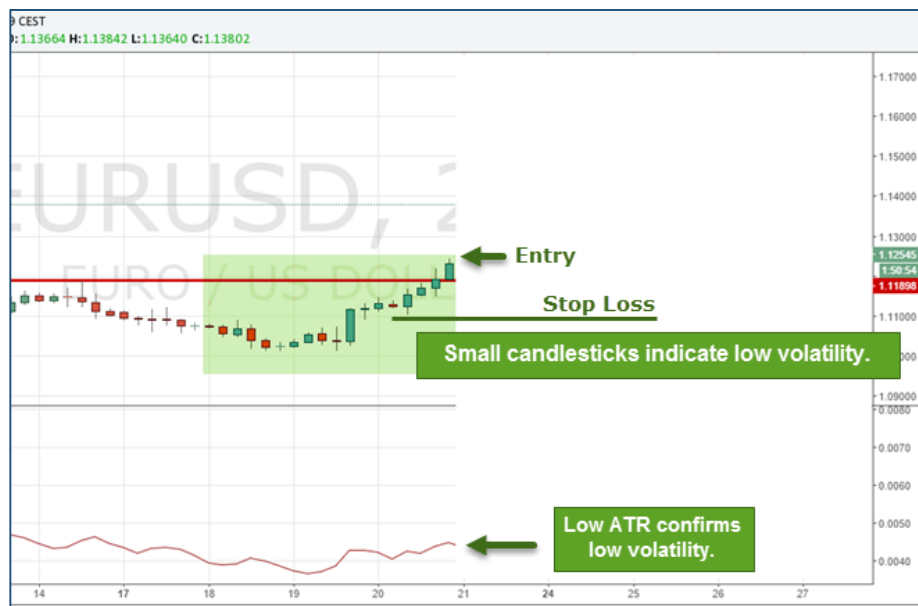
Setting a stop further away in times of higher volatility and closer when volatility is low, allows the trader to react to changing market conditions and optimize his reward:risk ratio and risk profile.

2. A maximum position of 2%

Although the stop loss size (in point distance) changes for every trade, the risk always stayed the same. The maximum allowed risk (position size) on any one trade was 2% of the current total account balance. The table below shows two examples of how the turtle traders would adjust their stop and position size based on volatility.

Although the risk is identical (2% or $ 2,000), the turtle traders have to buy more contracts during lower volatility because the stop loss is set closer to achieve the same risk.

Always determine the stop level first and then define how many contract to buy.

Never start by thinking how many contracts you want to buy/sell before you know your stop loss.

3. Correlations and risk

If the turtle trades want to enter two trades in different instruments, they had to look at the correlation between the two markets first.

A quick reminder: correlations describe how "similar" two markets move. A positive correlation means that the two markets move in the same direction and a negative correlation means that they move in opposite directions.
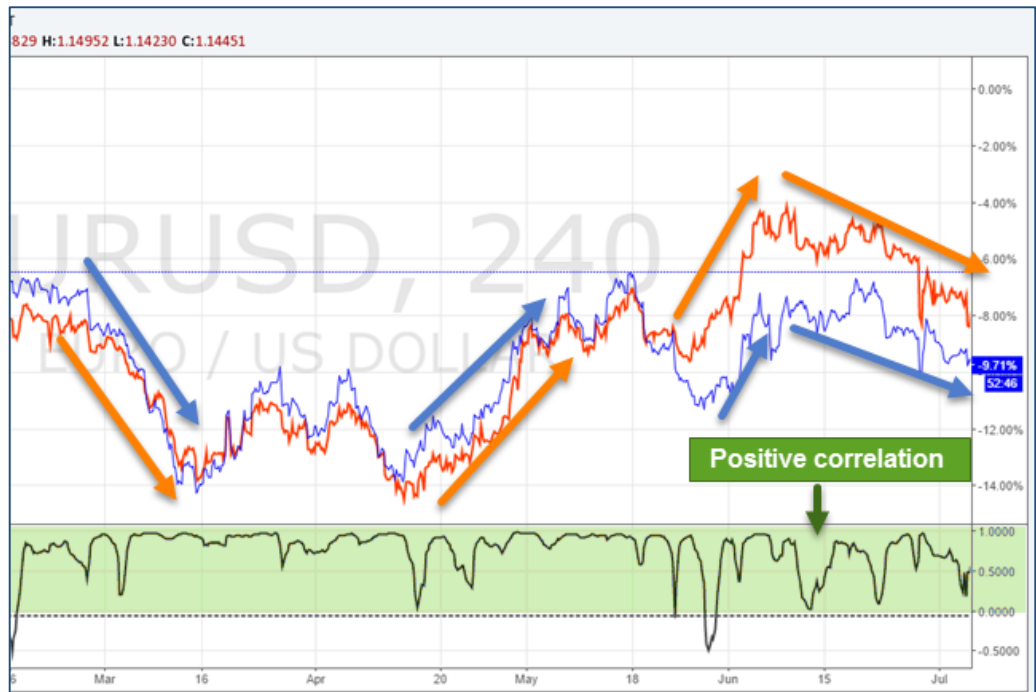
The screenshot above shows two price charts with a very high positive correlation (the two graphs almost move identical). Below you see two charts with a negative correlation (they move in opposite directions).
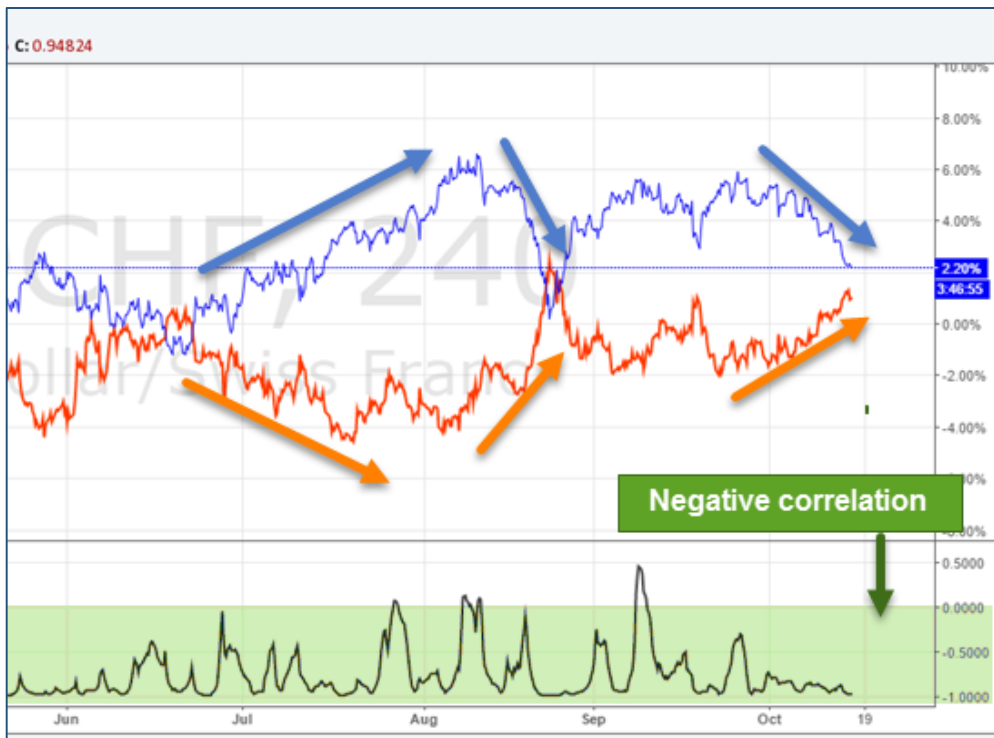
When trading positively correlated markets, your risk increases. When trading negatively correlated markets, you can lower your risk.

A trader who enters two trades in the same direction (two buy or two sell trades) on positively correlated markets increases his risk because it is more likely that the two trades end up the same. A trader who enters two trades in different directions (one buy and one sell trade) in positively correlated instruments will probably (not guaranteed) not have the same result.

The turtle traders did not come up with this strategy, but it has been used by professionals as long as trading exists. It is the irrefutable law of how financial markets work and understanding correlations is of great importance.

4. Adding to a winner

The turtle traders usually did not enter the full position size on the first entry. Remember that they were allowed to use 2% per trade, but they usually split their order across multiple entries and added to a winner. Their first position would be 0.5% and after the trade has moved into profits, they would add another 0.5%. They would keep adding to their trade until they reached the maximum of 2%. At the same time, they moved their stop loss behind price to protect their position.

The advantages of adding to a winning trade:

1. **You limit your losses.** The turtle traders' strategy was a breakout and trend-following strategy. On a false breakout, when price immediately reversed on them, they would usually only have a very small position and not yet have scaled in. Thus, the loss they take is only a small portion of the 2% maximum risk.

2. **You can catch large winning trades and protect your position.** You would only reach your full position size during high momentum breakouts and once you had reached the maximum exposure of 2%, the initial stop loss orders would already have locked in some profits.

You have to minimize your losses and try to preserve capital for those very few instances where you can make a lot in a very short period of time. What you can't afford to do is throw away your capital on suboptimal trades. – Richard Dennis

5. Adjusting position size during losing streaks

Dennis and Eckhardt understood that the most important thing during a losing streak is not how fast you can recoup your losses, but the degree to which you can limit your losses. Their rule to limit drawdowns during losing streaks shows this principle:

If your account drops 10%, you then trade as if your account has lost 20%. If you lost $10,000 on a $100,000 account, you then trade as if your account only has left $80,0000.

This means that even though your account is now $90,000 and your 2% would be $1,800, you only trade as if your account is $80,000 with a maximum risk of $1,600. This strategy will greatly reduce the losses once a trader enters a significant losing streak and it takes away a lot of emotional pressure as well.

This sounds like a lot of rules for just money management and position sizing. Let's briefly compare that to the **turtle traders' rules for trade entries**:

1. You enter a trade when price breaks above its 20-day range

2. You enter a trade when price breaks above its 55-day range

You are right, not a lot of trade entry rules, although there are small variations and exceptions to the rules. The point is that the professionals understand that entry rules only have very little importance and that the most important cornerstone of any trading strategy is position sizing and risk management. This is a main reason why so many amateur traders struggle – they focus all their energy and spend all their time on the least important factor.

4. DYNAMIC POS SIZING

Not through picking the right entry method or a 'better' combination of indicators you will achieve your trading goals, but through risk management and position sizing you can, to some degree, control and manage your trading objectives. The goals of traders can be summarized with the three following points:

The three goals as a trader

1) Achieving a certain percentage return

Usually, risk -seeking traders, or people with a gambling mindset will exclusively look for achieving a high percentage gain to grow their accounts fast, while often neglecting the importance of controlling drawdowns and managing risk properly. Thus, traders who are mainly looking for more profits often end up losing the most.

2) Minimizing drawdowns and volatility

Risk-averse traders are mostly concerned about keeping drawdowns small and avoiding major swings in their account balance.

3) Realizing a certain percentage return while keeping volatility stable and low

The advanced traders try to control both previous points to maximize their gains while keeping drawdowns relatively small. Although this sounds like something that is very hard to achieve, there are two trading concepts that

allow you to actively control the degree to which your trading account balance will likely grow and also how impactful drawdowns can be.

The combination of winrate and position size

Winrate and position size are two trading concepts that are often not fully understood and most traders do not completely understand the impacts of the two figures and how they shape a trader's destiny.

(1) Winrate

Winrate is the figure that traders cannot influence and although winrate is backwards looking, it can provide meaningful insights about the potential performance of a trader.

Winrate = Likelihood of winners, losers and size of drawdowns

The lower your winrate, the more frequently losing trades you will have and, consequently, the higher your drawdowns will be.

Just think about it with a very basic example: over the course of 200 trades, the statistical difference between a trading strategy with a winrate of 50% and one with 60% will be roughly 20 losing trades (100 losing trades with a 50% winrate and 80 losing trades with 60% winrate).

Furthermore, the lower your winrate, the more likely it is that losing streaks will be longer. These two points lead us to how position sizing fits into the picture and how it can help traders to improve their risk management.

(2) Position size – the variable and controllable factor

In contrast to the concept of winrate, traders can actively manage and control position size. Although this sounds like a very trivial insight, the implications are huge:

Let's get back to the example with the two trading strategies. The first one has a winrate of 50% and the other one 60%. As we have said, the one with 50% will have roughly 20 more losing trades over the course of 200 trades.

If you use 1% position size (risking 1% of your total capital on each trade) on both strategies, you will see a (roughly) 20% higher drawdown on the strategy with a 50% winrate. Consequentially, losing streaks will also be much higher for a lower winrate if the same position sizing approach is used.

Although both trading strategies might be profitable over the long-term, short-term variations can lead to impulsive and unnecessary trading mistakes. Amateur traders, especially, are not good at handling drawdowns and the higher the drawdown, the more frequent impulsive trading mistakes will be. Adjusting your position size based on your winrate can prevent unnecessary trading mistakes.
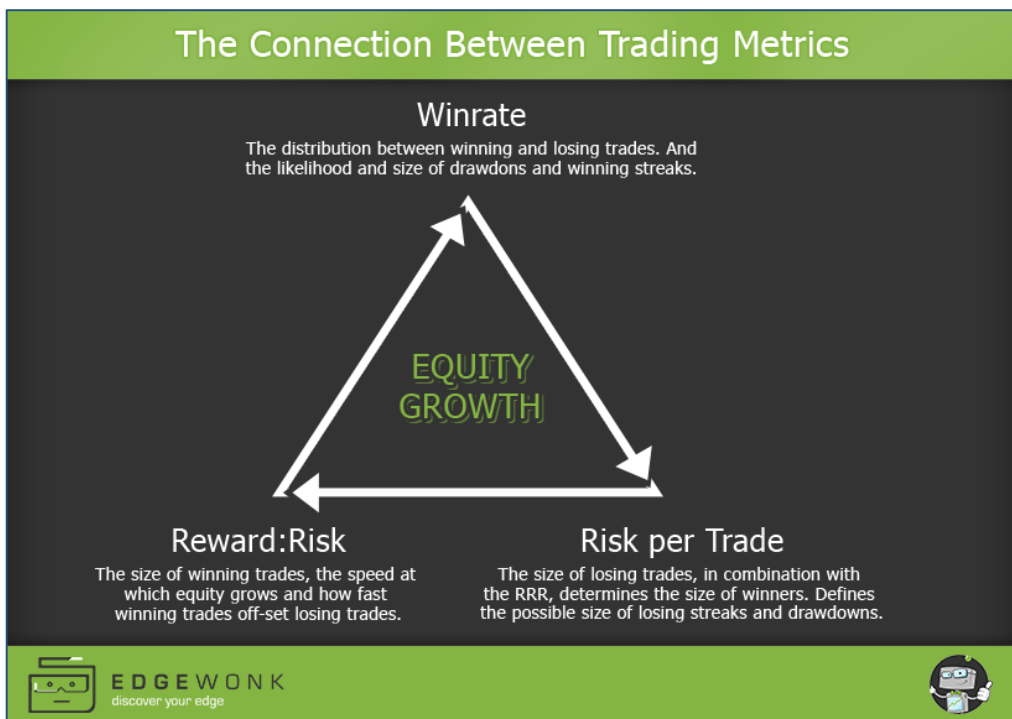
A money management digression

Poker – knowing when to hold them and when to fold them

In poker it is very obvious. Whenever you have a good hand, you want to bet more and when the cards do not look very promising, poker players bet less. Betting the same amount on each individual hand, regardless of the situation, is obviously the wrong thing to do.

> Bet more when your setups have higher odds and reduce risk when your winrate is small.

Sports betting – Don't over bet the underdog

In sports betting, gamblers risk more when they bet money on a team that is the clear favorite. Although the underdog still has a chance of winning and at times will even beat the clear favorite. But over the long term, the better team will come out ahead. When a match is tight and the favorite is not as clear, sports bettors will bet less.

By betting more when the odds are in their favor, professional sports bettors can maximize their profits and it works the same in trading. Although static position sizing is talked about in most trading books, when you listen to professional traders in the Market wizard series or other interviews, they'll often tell you that their position size varies based on the quality of the setup and their historical performance measures.

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5. Why your strategy is still good after 10 losses

How often have you felt invincible after having 5 winning trades in a row and then lost a bunch of money on the 6th trade because you took too much risk? How many times have you changed your trading strategy or tweaked your indicator settings after you lost 4 trades in a row because you thought your strategy wasn't working anymore?

If you understand fully how statistics and probabilities work, chances are that you'd be a profitable trader by now. Trading is exciting and fun, but math is boring and hard. That's why we traders don't like to mix them. Unfortunately, if you fail to embrace the two, becoming a profitable trader will be an impossible task. Trading is statistics!

Hot Hand Fallacy (Clustering Illusion)

We've all seen basketball or baseball players perform so well that it seems like they have the Midas touch and possess the ability to score at will. Scientists

call this phenomenon the 'Hot-Hand-Fallacy', or the 'Clustering Illusion'. Although it's completely random whether one player scores or misses - except for the individual level of skill - we tend to claim that she or he is "hot" when we see them score in streaks.

However, research demonstrates that winning and losing streaks only exists within normal statistical probabilities. Therefore, what we call a hot-hand is nothing abnormal, but only a normal statistical outcome. If a player has a hit rate of 60%, is it impossible or unlikely for him to score 14 shoots in a row? Definitely not. The likelihood of it happening might be low, but statistics suggest that every 1000 shots, she or he will have 14 consecutive hits at least once.

Lesson 1: Winning and losing streaks are completely normal. Start thinking in big sample sizes. In the field of statistics, one game alone doesn't have any significance in telling you whether something is normal or completely unlikely. The same holds true for trading. Don't just analyze 1 or 2 trades. Collect a database of 200, 300 or 400 trades before you can make an educated decision. Don't blindly change or alter your trading approach after a few dozen trades!!

Randomness Sucks

We as humans are particularly bad at understanding probabilities. We get into our cars every day and don't worry for a second about what could happen, whereas we are very worried when we get into a plane twice a year for our summer holidays.

However, when it comes to accepting randomness humans do an even worse job. We don't like to admit that we cannot control, predict or understand

what's going to happen. We, therefore, try to come up with fixed rules for random events.

In craps, people throw dice harder when they want to see a high number and weaker when they bet on small numbers. Don't you tend to think that after seeing 9 heads in a row, it's more likely to see tails in the next coin flip? If you answer with yes, do yourself a favor and keep on reading.

Lesson 2: Accept randomness. One trade is completely independent from the one before. To make it even worse, the outcome is totally random and out of your control as well. If you have 5 winning trades in a row, this won't help you to make a prediction about the outcome of the next trade.

You Don't Suddenly Become a Better Trader

Research shows that individual investors and traders trade more actively when their most recent trades are successful.

Thinking in terms of sample size is critical to understand statistics in trading.

The most important thing to be aware of when it comes to the Hot-Hand-Phenomenon is that the perception of your own level of skill changes if you experience a winning or losing streak.

Basketball players will take shots from spots that are harder to make and, therefore, harm their team. When it comes to trading, you are more likely to risk more than usual after having 4 winning trades in a row. The reason is that you might think that having 4 winning trades in a row is because of your outstanding abilities to pick a winning trade. Dead wrong. You are still the same trader you were 4 trades earlier.

How often have you wiped out the gains of a month of good trading because you put on too much risk on just one trade because you felt you knew where markets are going?

Lesson 3: You don't suddenly become a better trader. Therefore, never change your approach to your money and risk-management. If you have the tendency to trade more when your past performance was positive, a good idea is to walk away from your trading desk for a while and clear your head.

The Two Most Important Trading Statistics

The two most important statistical figures in trading are your strategy's win rate and the risk-reward-ratio of a trade; as you can see, we really want to drive this point home. While seeing them as separate statistics, they have no significance. Together they can tell you whether you'll make money or not - even before entering a trade.

Lesson 4: Collect data in your trading journal and start crunching numbers. A trading journal is a must have for every serious trader because a good trading journal shows you exactly what to do in order to make more money.

How Good Is Your Trading Strategy Really?

Don't you think that if you have 10 losing trades in a row, your trading strategy doesn't work and you are a bad trader? It probably doesn't even take 10 losing trades to make you doubt your trading strategy...What if we told you that it's not the case and the system you are about to give up on, could make you all the money you ever desired? If traders would stick to their strategies just a little longer and not give up so quickly, we'd see a lot more profitable traders.

Lesson 5: Losing and winning streaks are normal and no matter how good you are, they'll happen. Don't give up on your method too early. Every time you change your trading strategy, you start from zero again.

The illusion of control – who would pick losing trades in the first place?

There are a variety of very interesting and surprising experiments around the illusion of control in events with random outcome:

- People bet more money on games of chance **when their opponents seem incompetent,** even though the outcome is totally random. [1]
- People feel more certain about winning the lottery when they **can pick the number themselves**.[2]
- People feel more confident and bet more when they can **throw the dice themselves**. [3]
- People bet more **when the dice haven't been tossed** than on dice that have already been tossed but whose outcome **is not yet known**. [4]
- Psychology found that a feeling of control not only makes us feel better, but it also makes us healthier. [5]

Of course, in trading, the illusion of control can lead to a variety of misconceptions and trading mistakes. Placing a trade **yourself**, after having done **your own analysis** and coming up with the conclusion that the setup looks good, creates the illusion that we only (mostly) pick winning trades – why would we enter a losing trade anyways, right?! This then leads to emotional attachment and the inability to cut losses.

Conclusion: Make Your Own Luck with Consistency

Don't make decisions based on the outcome of 1, 2 or 3 trades. Start thinking in big sample sizes.

Accept randomness. The outcome of a trade is completely random and independent of the one you took before. You don't suddenly become a better trader. Therefore, always apply the same tactics to your money and risk-management. Love your trading journal and start analyzing as much of your own data as possible.

Streaks are normal. Next time you are about to change your trading strategy think twice and stick to it a little longer.

References:

1. E. J. Langer, "The illusion of Control", Journal of Personality and Social Psychology 32: 311-28

2. Ibid

3. D. S. Dunn and T. D. Wilson, "When the Stakes Are High: A Limit to the Illusion of Control Effect", Social Cognition 8: 305 - 23

4. L. H. Strickland, R. J. Lewicki and A. M. Katz, „Temporal Orientation and Perceived Control as Determinants of Risk Taking", Journal of Experimental Society of Psychology 2: 143 -51

5. R. Schulz and B. H. Hanusa, "Long-Term Effects of Control and Predictability-Enhancing Interventions: Findings and Ethical Issues", Journal of Personality and Social Psychology 36: 1202-12

6. Do you need a big trading account?

Are larger accounts easier to trade? Short answer, yes. Undercapitalization, to me, is the biggest reason for people failing in this business. While discipline and diligence will bring you places, if you have little to no capital to work with, your chances of making it on your own are slim to none.

The main reason why small accounts usually turn into busted accounts is overtrading. 99% of us get into trading because we want to get rich, or need money. We want it all, and we want it now. We hear stories of people turning their 10.000$ into 4.000.000$ and are pranked into believing that we can do it, too. With this goal in mind, we load up our trading account with 500$ and expect to double it up every month. I know, I've been there. We all have. It's how this industry is being advertised, after all, so no wonder. Of course, there are people turning small accounts into fortunes, but those are outliers. What makes you think you are, or will be one of them? It is much more likely you will engage in a gambler mentality and burn your account more than once.

Traders with small accounts need to take more trades and overtrade easily.

If you have to make a certain amount of %-gain per month just to stay afloat or get rich quick, you will put a lot of pressure on yourself and this will affect your trading in detrimental ways, no doubt. Additionally, you will very likely turn to day trading and watch lots of instruments simultaneously to quickly get in as many trades as possible. While there is nothing wrong with being a day trader, your targets will typically be smaller than those of a swing trader and, thus, you will pay much more commissions in relation to your gains. This can absolutely kill an otherwise profitable strategy.

Also, patience is incredibly hard to keep up when you are playing for small stakes. Can you really sit in front of the screen for a whole day, then be in a trade for an hour, manage it correctly, and get out with a profit of 30$ - happily? If you'd be flipping burgers you would make more money. It's just not going to

work for most of us, psychologically, to trade a small account. It never worked for me. I started treating trading like a business once I started risking meaningful amounts of capital.

That doesn't mean you should brainlessly increase your bet size until it hurts, though, but in my experience, it is definitely better to trade a "large" demo account than a small live account. Funding a demo account with 50.000$ will make it much easier for you to stick to your plan than when trading a 500$ live account. The fun is in the zeroes ;-). Making 2000 virtual dollars is more satisfying than 20 real dollars, trust me. And once you have proven on demo for 3 consecutive months that you can trade profitably, switch to a live account - a big one. Your success will come much faster and easier that way than trying to grind up a few cheeseburgers at a time.

If you depend on your trading, you add unnecessary pressure.

But what to do when you can't afford to fund a reasonable (let's say 50.000$) account? There are several options:

(1) Grind it up (just kidding, not going to happen)

(2) Get investors on board - easy with a verified track record, sites like Darwinex even handle the acquisition of investors for you

(3) Stay in your current job and top up your account at the end of every profitable month

(4) Start an online business on the side to open up multiple streams of passive income (absolutely recommended for traders anyway)

(5) Pass on your trading knowledge to struggling traders and get paid for it (mentoring, lecturing, online classes, up to you - if you are profitable, of course.)

(Now those are all very viable options and while I don't want to crush your dreams, I want to shift your values. Trading is not a get-rich-quick scheme. It is

a business like any other and will simply not be operable without plenty of liquidity. Often when people get into trading, they want to escape their 9-to-5 job and not even remotely want to think about doing anything else than trading. While that passion is great and vital, in the long run it will make you a better trader faster if you have other income streams to rely on and to boost your trading account.

What should be your goal then, in absolute numbers? Well, it depends on your cost of living. Residing in Tokyo will require you to have a bigger trading account than living it up in Bangkok. The ideal trading account size is such that if you risk 1% or 2%, you can live off one R-multiple per month. Meaning if you have a 50.000$ account, and you risk 2% per trade, that would be 1000$ - this should cover your monthly expenses (don't forget taxes). The rest will be used to grow your account and make life better.

In an ideal world, you won't even have to withdraw from your trading account because you have other income streams. Approaching trading like this will completely change your mindset. If you only need 2-3 good trades per month, you will become a much better trader because you will automatically be MUCH pickier, sitting on your hands and waiting will become incredibly easy, and you won't be stressed out even for a second (your heart will thank you).

Having a nice financial cushion in the bank that covers your living expenses for the next 6 to 12 months will add another safety net that takes pressure off you and your trading, so you can focus on only one thing: improving as a trader as best you can, and the money will come along the way. Trust me.

Treat your trading like a business, not like a trip to the casino, and you will do just fine.

7. Compound Interest

Compound interest is a mathematical principle that creates those staggering growth curves we have all seen. Understanding compound interest is of great importance as a trader because it teaches you many lessons that are critical to internalize if you want to stay on top of your game.

Compound interest 101

Compound interest works so well because you let your money work for you. The graphic below illustrates the power of compound interest. The starting point is a trading account with $10,000 and a trading system with a winrate of 55%, an average position size of 2% and the average Reward:Risk ratio (or R-multiple) is 2. If you multiply these figures out, you get a trading system with a trade expectancy of 1.3% - this means that every trade has an expected outcome of 1.3% over the long-term.

Recap – expectancy calculation:

General Formula: (Winrate * Position Size * Reward:Risk) – [(1 – Winrate) * Position Size] = Trade Expectancy

So with a trading account of $10,000 the first trade has an expected outcome of +$130. After some more trades, your account has grown to $15,000 – at this point, the 1.3% are +$195 per trade. Although the change from $130 per trade to $195 per trade doesn't seem big, but keep in mind, you don't have to do much different; you are still trading the same system with the same metrics.

After some more trades, your account is now at $20,000 and the 1.3% are now worth $260. This is still the "slow growth" period for your trading account and the toughest period for any trader.

After making it through the slow growth period, things start to get interesting. After 200 trades, the 1.3% will be worth almost $1700 per trade – following the same trading routine. This is when exponential growth really starts to kick in. After 500 trades, the 1.3% are worth an incredible $81,000 per trade.

Word of caution: Although exponential growth is not a theory but a mathematical principle that is irrefutable, you have to be aware of some trading specific issues. As your trading account growths, you will experience some "size-related issues", meaning that getting a fill might become harder and entering a trade with one large position will become increasingly difficult.

> "Compound interest is the eighth wonder of the world. He who understands it, earns it ... he who doesn't ... pays it."- Albert Einstein

Exponential Growth

Example:
Winrate: 55% | Pos. Size: 2% | R-multiple: 2
Account size : $10,000

|	Gain per trade
1. trade	$ 130.00
10. trade	$ 146.03
50. trade	$ 241.66
100. trade	$ 466.96
200. trade	$ 1,699.12
500. trade	$ 81,857.14

The lessons of compound interest

(1) Patience

Developing patience is the most important factor when it comes to using the principle of compound interest. Most amateur traders make some calculations and then get too excited about where they could be in 100, 200 or 500 trades. But back in reality they get frustrated because their $2,000 account is not producing the returns they are after.

90% of your trading journey will be slow and "boring" because compound interest only really kicks in once your trading account reaches a certain size. Thus, most traders will never get there because they give up too early and change trading systems, hoping to find something that will generate greater returns faster. Can you accept to make little money for the next few years in exchange for a potentially high reward at some point far in the future?

The graphic below shows a simulation of a trading account with relatively conservative metrics (winrate 50% and an average Reward:Risk ratio of 1.5). Most traders will only look at the right and only see how much the account grew. But they don't understand that it took years of low returns to get there (this simulator is available in the Edgewonk trading journal).
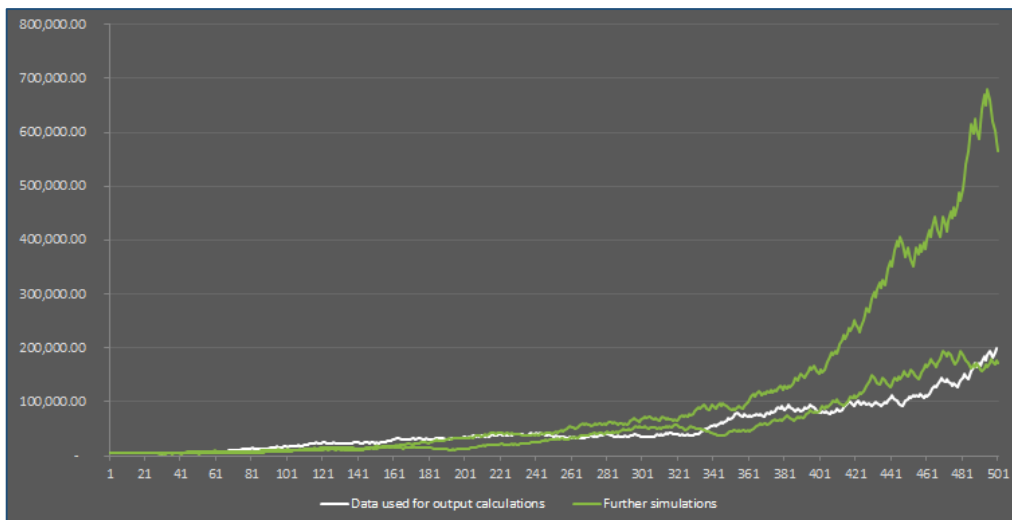
(2) Consistency

Once you have understood that you need to be patient, it comes down to applying consistency to your performance. Everything significant that has ever been achieved is based on the principle of consistency. The tallest building in the world started with one brick and by consistently laying brick upon brick. Arnold Schwarzenegger became the best body builder of all times because he consistently worked out every single day, building his body little by little. The Fortune500 companies got to the top by making customers happy - one at a time - and by continuously making small improvements.

As a trader, you have to bring your best game every single day. And even if it looks as if your trading account will never amount to anything meaningful, keep in mind that the principle of compound interest is irrefutable and it works every single time without exception – it's a law of nature.

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8. Final word

This Ebook provides a comprehensive overview of different aspects of risk management and money management. The topics covered enable the reader to question his own trading approach and to identify ways to improve his trading approach.

Although some of the concepts discussed can potentially help increase the overall return, focusing on ways to minimize drawdowns and reducing the risk should be the trader's main priority. Professional traders first try to find ways to reduce the downside risk before exploring ways to leverage their strengths.

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Price charts have been created using Tradingview.com