STRATEGY IN VALUE BETTING

A GUIDE TO RISK CONTROL, PROFIT MAXIMIZATION AND AVOIDING BETTING LIMITATIONS

TRADEMATE
S P O R T S

PREFACE

In Trademate, we are passionate about finding the edge, and are always on the lookout for new ways to improve. Now, we have created this eBook to share our enthusiasm for the concept of value betting and the mindset behind it.

The goal is that after reading this, you will have a better understanding on how to maximize your profits, tune risks to your preference and avoid limitation from bookmakers. Much of the content in this book is about understanding the different factors in value betting and how one can manipulate them to set up a strategy that suits your personal preference.

The advices and strategies in this book is based on our conversations with professional bettors, industry insiders, simulations and own experience.

This is the third in this series of four eBooks covering betting from the basic concepts to strategies and how to make a living out of it.

I hope you find it interesting.

> *-Marius, CEO of Trademate Sports.*

CONTENT

1   The Presets Used for Soft Books Betting on TradingEurope

From time to time someone asks me if I'm willing to share which presets I'm using, which I am. I have gone through them on previous episodes of TradingEurope and I do make some smaller changes every now and then. So I figured I'd just write a post where I go through my presets and explain more about them.

GENERAL STRATEGY

I mainly trade during the weekends and view this as a good way to generate a secondary income. I never risk more than I'm comfortable with losing both in terms of overall bankroll and as my maximum stake size. In the days of Edgebet I tried the high volume all leagues approach and within my 1100 trades found myself limited on 5 of the highest volume bookies. When Trademate was launched it included better filtering options so I decided to change my strategy and rather focus on quality over quantity and take a long-term perspective. Don't get me wrong just as anyone I want to maximize my profits, but since the soft books limit winning players I believe that the best way for me to maximize my lifetime value is to be more selective of which edges I get in on. Therefore 95% of my trades will be on recommended leagues. The exceptions being when I try to clear a bonus.

This approach is not for everyone and we have customers who have been getting higher profits than me in a shorter time period, by following more of a high volume all leagues approach. However, I believe that my **lifetime** earnings from the softs will be higher and only time will tell whether that will actually be the case. So my way is not the only way. I would say that it is best for people to use their own judgment and find a balance between risk and reward that they are comfortable with.

ALL BOOKIES PRESET

To the right you can see my main preset. Here I include all of the bookies that I'm using and all sports besides tennis.

SPORTS

The main reason that I stay away from Tennis is that sometimes players retire after a few sets in a tennis game if they have a more important game a few days later. This makes it unpredictable. Not being a teamsport also makes the games more unpredictable.

ODDSRANGE

I stick to odds from 1-4. There are two main reasons for why I do this. First, the variance is higher the higher you go in odds range. Second, Trademate is currently slightly overvaluing edges in the higher odds ranges, so I want to have higher edges and a margin of safety of a couple of percentage points to move in on trades here.

EDGE

I have set my minimum edge at 2%, because more marginal edges than that are not going to be worth my time. At times I have used 1% here, but these days when I do the majority of my trading on the weekends and there are plenty of edges to choose from I want to focus on getting in on the better edges.

This image shows a preset from the Trademate Sports tool illustrating my preferences

HOURS BEFORE KICK-OFF

I take edges as early as 7 hours before kick-off on the softs. The timing is an aspect that is much more important on the sharps, than on the softs, so I'm comfortable with going early here. Also, not doing so would make me to miss out on a lot of good edges because the bookmakers sharpen up the last hours. The downside is that you risk losing the edge because a lot can happen before gamestart. As long as one is beating the closing odds, taking early edges is fine.

RECOMMENDED LEAGUES

I use recommended leagues only here. From my experience my accounts last longer before I get limited when I stick to recommended leagues, as it is a lot less suspicious for me as a Norwegian to play on e.g. the English Championship than Chinese Basketball.

AFTER TRADE PLACED

I stick to one trade per game. By having more trades on one game one can increase turnover, but it comes at the cost of a large increase in variance, which is not worth it in my opinion. The one exception I do make is if there is let's say an over/under edge on Bookie A and a 1x2 edge on Norsk Tipping the Norwegian government bookie. Then I'll place both trades at times.

2 How Bet Sizing Impacts Your Game, a Technical Analysis

Bet sizing plays an extremely important role in any profitable betting strategy, and in this article I'm gonna try to give some insight into exactly how important it is.

In the sports betting community, there are mainly two general staking strategies bettors use. A **flat stake**, and a **proportional stake**. With a flat bet size, you either put the same wager on every single game, or you put the same wager on games that have the same odds and edge. Flat bet sizing is fairly easy to use, but it's hard to select a proper size. A size too big will increase the chance of going broke, while a size too low will not yield big enough profits.

A proportional strategy is where you place a certain percentage of your current bankroll on each bet. **Kelly's Criterion** is a formula that **maximizes the growth rate of your bankroll**. The formula for the Kelly's Criterion is

$$\frac{P * G \ - \ 1}{G \ - \ 1}$$

where P is the probability of success and G is the odds you're given. Let's take an example. If you were to bet on a coinflip - in a fair world you'd get an odds of 2. If you were to get odds of 2.1, you would've had an edge of $\frac{2.1}{2}$ = 0.05 = 5% and Kelly would suggest

$$\frac{0.5 * 2.1 \ - \ 1}{2.1 \ - \ 1} = 0.04545$$

This means you should bet 4.545% of your current bankroll. Let's take the scenario where this is ran 2 times with a starting bankroll of $100, you win one and lose one.

1. You bet 0.04545 * 100 = 4.545 and lose, now you've got $100 - $4.545 = $95.455 left.
2. You bet 0.04545 * 95.455 = 4.338 and win, now you've got $95.455 + $4.338 * (2.1 - 1) = $100.227 left. (4.338 * 1.1 is the net return of the bet.)

The interesting thing, is that the order of the bets does not matter. You would've ended up with $100.227 if you'd won the first one and lost the second one.

Now over to a practical scenario. The example written over is not exactly representative for the common bettor, because it assumes that you know the outcome of the previous bet before placing the next one. In the sports betting world, one would usually have between 5-50 open bets at the time. This obviously affects the bet sizing. If you were to place 10 bets in a row with similar odds and edge, the bet sizing would decrease as your current bankroll decreases with each bet. If every single bet were with the odds of 2.1 and edge of 5%, you would expect to win 50% of the bets. This gives you the possibility of losing all your biggest bets and winning all your smallest bets - hence ending up in the negatives after placing nothing but profitable bets. It's worth noting that the other way around could occur, you could win all your biggest bets hence flipping a huge profit.

Here is a distribution of all possible combinations of bets with odds of 2.1 and edge of 5%, giving a win rate of 50%. There are 20 open bets, and it randomly picks 10 winners and 10 losers, so it's running perfectly every time - and only a matter of how the wins and loses are distributed. The x-axis shows the bankroll after the bets are settled relative to the starting bankroll, and the y-axis shows the number of occurences (out of the 184756 possible combinations). It follows the Kelly bet sizing, so the bet size decreases for each bet as it's always placing 4.545% of its current bankroll.

The blue shows the results for 100% of Kelly, the orange for placing 50% of Kelly, and the green for placing 30% of Kelly.
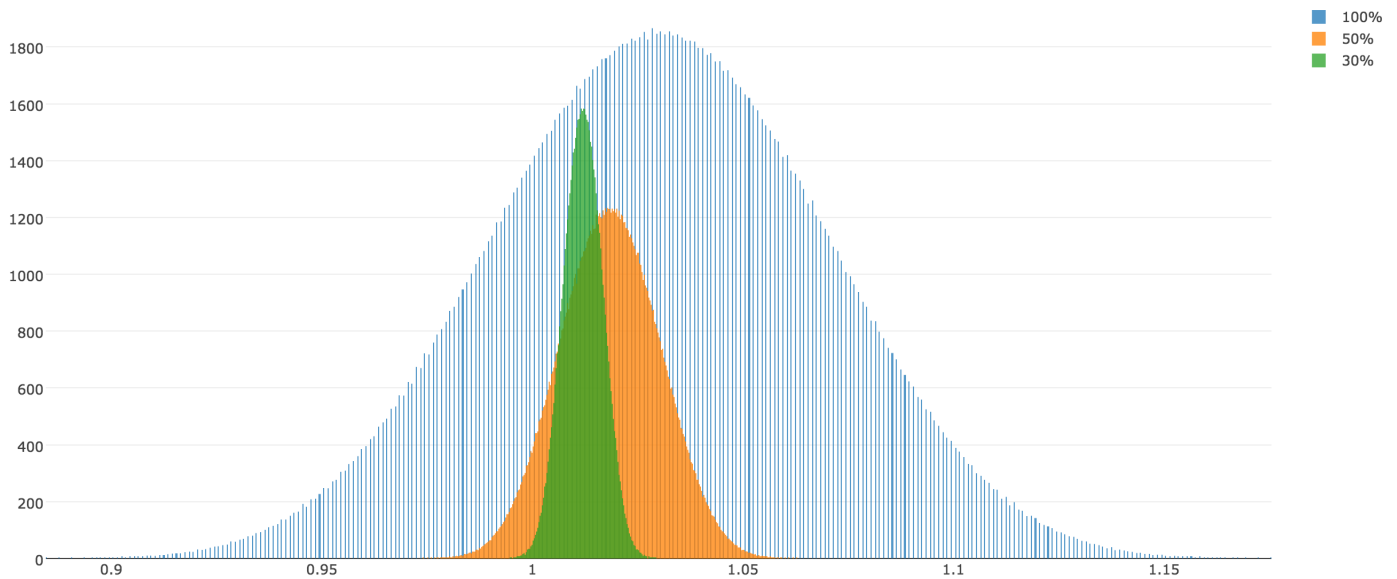
As we can see from the plot, the 100% of Kelly (blue line) yields the highest possible return, and the highest average (~1.03). However the spread is huge. One could end up with everything from 88% to 117% of your starting bankroll. As you decrease the fraction of Kelly to 50% and 30%, the spread gets a lot smaller. The probability of ending up in profit skyrockets, where as the average return gets lowered ever so slightly. It's very important to note that **by betting a lower fraction of Kelly, you risk less money**. By betting 100% of Kelly, you risk ~60% of your bankroll to grow it to an average of 104%. By betting 50% of Kelly, you risk ~37% of your bankroll to grow it to an average of 102%. By betting 30% of Kelly, you risk only ~24% to grow your bankroll to an average of 101%.

Kelly	30%	50%	100%
Turnover	0.240	0.369	0.606
EV	1.012	1.018	1.030
Best case	1.030	1.063	1.176
Worst case	0.995	0.974	0.885
Probability of profit	~1.0	0.941	0.778
Probability of EV or better	0.5	0.5	0.5
Standard deviation	0.005	0.012	0.039

There is no doubt that following full Kelly is the strategy that would maximize the growth of your bankroll. Many people will tell you to bet less than the Kelly formula tells you to. Two reasons are generally given for this.

1. The edge may change. If you place a bet 10 hours before kick off, the odds can swing both in and out of your favor. By placing a fraction of Kelly, let's say 50% you have more rooms for error if the edge slightly decrease. If it increases, you can simply place more money on that bet.
2. The Kelly formula leads to extreme volatility, the probability of being badly down for an unacceptable long strech may occur.

Additionally, placing a lower fraction of Kelly would generally decrease your bet size, making the probability of getting limited by the bookmakers smaller.

Do not bet more than Kelly suggests, so if you chose to go high risk (100% of Kelly), do not over-bet. That will actually decrease the growth of your bankroll - as the full Kelly value is a maximizer.

3 How to Reduce Variance in Sports Betting

This section briefly goes into the different parameters that ultimately decides your variance. For the bettors out there that do not enjoy larger swings in your bankroll and deviance from your expected value, this section also discusses what actions you can take in order to minimize those fluctuations.

When placing trades - there are 4 main parameters that impacts your variance;

1. Odds
2. Time until the game starts
3. The edge percent
4. Whether you place bets that are dependant of each other

ODDS

This is the most obvious one. The higher the odds you place on, the more swings you will see in your bankroll. The reason is quite simple; if you bet only on odds of 11 with an edge of 10%, you can expect the bet to be a winner one out of every 10 games, and you'll get paid back 11 times your wager. In theory, you'd then lose 9 bets in a row then win one and win back more than you lost in the previous 9 bets.

TIME UNTIL THE GAME STARTS

The time until the game starts is quite important. The reason is, if you place a bet a full day before game start with an edge of 3% - new information may occur that could swing the bet out of your favour. To be extreme, there is a chance that all the key players of your team might miss their flight, making your team lose the game. There is also a chance that the bet gets stronger, as the same thing could happen to the opposing team.

The only thing that can be said for sure is that this will increase your variance, as the lines and the information are not settled yet.

THE EDGE

If you place on marginal edges (1-2%), chances are they can swing back if you place it a far from game time. The reason is that even the smallest piece of information may shift the market out of your favour. When you find higher edges, there is always a reason the market shifts so drastically - and the probability that it would shift back is higher. Most of the players in our community apply a rule of thumb that the longer it is until game time, the higher the edge threshold is. For instance, if it's less than 2 hours until game time, One would place on their full range. If it's 2-6 hours, then one would only place on 5%+ edges. If it's more than 6 hours, then one might place on 8%+ edges.

MULTIPLE LINES ON SAME GAME

If you place multiple bets on the same game with dependant lines, you'll see huge swings. If you place bets on +0.25 Home, +0.5 Home, +0.75 Home, +1 Home as well as Home to win and you follow our bet sizing - you'll have a lot of money that the home team is going to win. Keep in mind that if you place on many lines on the same game you need to scale down the bet size. One could argue that decreasing the bet size and placing on multiple lines could decrease variance, for instance if there's an edge on Over 1.5 and Over 2.5 goals, you place half the bet size on both of them.

4 Hedging bets: a Strategy for Reducing Risks When Trading Sports

KEY TAKEAWAYS

- Hedging sports bets can enable you to reduce your risk, but it will also reduce your potential ROI. Therefore it is a tradeoff between risk and reward that you as a trader have to make.

- Be aware of potential pitfalls such as bookmakers voiding your bets as they can leave you exposed with high risk and no upside.

"A hedge is an investment to reduce the risk of adverse price movements in an asset." - Investopedia

Russian Premier League: Ural vs. Rostov

AN EXAMPLE OF HEDGING A SPORTS BET IN RUSSIAN PREMIER LEAGUE

As a sports trader you can reduce your risk by hedging a trade you have placed. For instance on November 30th, 2016, Ural played Rostov in the Russian Premier League. The opening odds for the game offered by an Asian bookmaker is included in the table below. Rostov both being higher placed in the League and being a team that beat Bayern Munich at 15 in odds in the Champions League the week before was the favorite to win the game.

Opening odds at an Asian bookmaker	Ural win	Draw	Rostov win
November 28th, 13:12	3.35	2.98	2.53

Soft bookmakers typically place their odds lower than the odds offered by the sharp bookmakers, because they have a lower payout rate. 2,5 hours before kick-off, November 30th, the Norwegian bookmaker Norsk Tipping (NT) offered the game at 2.95 for a Ural win. However at this point in time the odds at Pinnacle had dropped to 2.17 (removing their 2,5% vig, the true odds would be 2.26) resulting in a 30.5 % edge [((2.95 / 2.26) -1) *100%]. Next, Norsk Tipping most likely noticing a large amount of money placed on a Ural win adjusted their odds to 2.6 resulting in the odds below.

Opening odds at Norsk Tipping	Ural win	Draw	Rostov win
November 30th, 12:41	2.6	2.7	2.45

However, this was still a 15% edge versus the Asian bookmaker. I placed the bet at 2.6 on NT with a stake of 850 NOK or approximately 100 USD. If Ural wins I would get a return of 260 USD and a profit of 160 USD (Stake returned - Initial stake). After I had placed my initial bet, I kept monitoring the odds at the Asian bookmaker, which kept dropping. With such a large edge I now had the opportunity to hedge my bet to completely eliminate any potential losses if Ural failed to win, while making a smaller profit if they win. This was achieved by placing a bet on Rostov to win on the Asian Handicap line of +0.5 at Pinnacle at 1.96 in odds about 20 minutes after taking my initial position. Meaning that if the match ended in a draw, Rostov would have a 0.5 goal handicap, the result being a Rostov win. By hedging on the Asian bookmaker I would have a return on investment of 11,7% given a Ural win [1 / (1/2.6 + 1/1.96)]. While breaking even on any other outcome (a draw or a Rostov win), so basically I was freerolling the game without any risk of potential losses. An important point to note is that hedging differs from arbitrage, because the bets take place at different points in time. This enabled me to get a much higher ROI while taking positions on both sides than what I would have achieved through arbitrage at the time I placed my initial bet.

Norsk Tipping - 1x2	Initial stake	Odds on Ural win	Return	Profits
	$100.00	2.6	$260.00	$160.00
Asian bookmaker - Asian Handicap +0.5	Hedge stake	Odds on AHC +0.5 Rostov	Return	Profits
	$104.20	1.96	$204.23	$100.03

Profits if home win	$160 - Hedge stake	$60.00
Profits if draw / away	$100.032 - Initial stake	$0.32

NEW INFORMATION IN THE FORM OF LINEUP CHANGES MADE THE ODDS DROP

The odds at the Asian bookmaker kept on dropping all the way until kick-off as new information became known to the market. Most likely due to Rostov resting several key players.

When the match started Ural had become the favorite and Rostov the underdog. The Asian bookmaker offered the following odds:

Closing odds at the Asian bookmaker	Ural win	Draw	Rostov Win
November 30th, 15:00 - Kickoff time	1.71	3.53	6.25

The vig-free closing odds offered by the Asian bookmaker at a Ural win would be 1.76 [1.71 / 0.973]. The closing edge versus my initial trade at 2.6 would have been a 47,7% edge [((2.6 / 1.76) -1) * 100%)]. It is also worth to note that I would have had better odds on my hedge trade if I had placed it closer to kick-off.

THE PROS AND CONS OF HEDGING A SPORTS TRADE

The game ended with Ural winning 1-0, giving me a profit of $60. However, if I had simply stuck with my initial trade of a Ural win at 2.6 in odds without hedging I would have made a profit of $160. This highlights the pros and cons of hedging sports. The advantage of hedging was that I managed to eliminate my risk on the game. However, the disadvantage was that I reduced my potential ROI.

Now, because of Norsk Tipping's specific rules, the Ural - Rostov game was not offered as a single, meaning that it had to be matched with another game to form an accumulator. I ended up combining it with another team scoring 2 goals or less in another game at 1.01 in odds. They ended up scoring 2 goals, so it was a close call, that ended with the trade being good. However this also meant that in reality my hedge trade was not completely risk free. If the 1.01 game had not gone in, I would have ended up losing the $100 I placed through the Asian bookmaker. Also, bookmakers often reserve the right to void bets where the odds is wrongly set. This could potentially have left me with a huge -EV trade. So if you are going to hedge your trades, make sure you are familiar with your bookmakers rules and practices.

LESSONS LEARNED FROM HEDGING A SPORTS BET

What did I learn from this experience? One can only make decisions with the information one has available at that point in time. I could not know whether the market would continue dropping in odds on a Ural win after I placed my initial trade or whether it would swing the other way. Therefore I made the decision to hedge my trade and freeroll the game for a guaranteed profit if Ural ended up winning. In hindsight, I would have made the same decision if the trade had been a single on NT. However if I come across trades in the future where there are hedging opportunities, but the game is not offered as a single I would rather run the risk with the potential upside of a larger return on investment.

KEY TAKEAWAY

To sum it up hedging a sports bet can enable you to reduce your risk, but it will also reduce your potential ROI. Therefore it is a tradeoff between risk and reward that you as a trader have to make. In addition, you should be aware of potential pitfalls such as bookmakers voiding your bets as they can leave you exposed.

5 Why Bookmakers Limit Players

The corporate bookmakers overall aim is to make profits, since that's what the owners and shareholders are looking for, and nothing else. They're a business, not a charity after all. As an industry insider said:

"I'll be honest with you, there's a culture of always trying to be unfair with the customer, and there doesn't have to be. In other words, trying to deceive the customer, the very guys who pay our wages. As a punter myself it annoys me, because I know other bookmakers are doing it to me. The difference is, I understand it."

Sports betting is an expensive service for the online betting companies compared to games and casinos, or FOBT's (Fixed Odds Betting Terminals) that are guaranteed to provide profits. The soft bookmakers do therefore have high margins on sports betting, and if someone consistantly earns money from sports betting they have no problems with limiting the players to prevent the company from losing money.

Most betting companies deny limiting winning players. When P3, one of Norway's largest radio channels interviewed a spokesperson from a major Nordic bookmaker he claimed that stake limitations are common though denying limiting winning players:

"Like most other companies in the industry, staking limits are applied to games, especially to prevent syndicate and insider betting. The claims that we generally limit winning players are completely wrong and we do not experience many inquiries about this."

With little means to distinguish syndicate or inside bettors from sharp ones, the reality is that winning players eventually get limited. The question then is,

how can one avoid being limited?

6 How Bookmakers Profile Players

All soft bookmakers profile players whether they say so or not. It is done both for marketing purposes as well as detecting sharp bettors beating the bookmaker. The aspect of not gaining attention has therefore become an important aspect of value betting.

Not all risk teams are the same, but industry insider Matthew Trenhaile, pointed out things that will most likely be looked at:

- Does the account make money? Sounds ridiculous to highlight this but it is the one thing that you can't hide no matter whose account you use to place the bet.
- Is the account price sensitive and did the account place a bet via a price sensitive medium such as a price comparison site? Sharp bettors are price sensitive.
- Was the bet placed well in advance of the start of the event? Anything prior to the day of the event in particular can raise questions.
- Is the price an arbitrage price at the time of the bet? Pretty easy this one.
- Did the price shorten significantly after the bet was placed and before the start of the event? The closing price is more accurate than the opening price after all.
- Did the client place only one bet rather than a variety of bets? Contentious this one but bookmakers like to see you place multiple bets on the same match as if you need as much action as possible. This is as long the bets are different types and not the same bet type with different lines, doing so would just appear like one's exploiting the bookmakers mistakes.
- Do you withdraw your money? Never let money out the door.
- Do you use an E-Wallet when other more direct methods are possible? People who need to move money fast are sharp or arbitrage traders. Or possibly money launderers, which can get your account flagged just as fast whether you are one or not.
- Do you use the online casino? If not then why not.

- Do you bet on niche markets that are not directly highlighted by the marketing team?

- Do you bet in large size? Betting is supposed to be a small stakes social exercise isn't it?

- Do you bet on mobile platforms? If yes then that is good news. If not how come your IP keeps changing when you login? Are you using a dongle or a VPN to confuse our kindly risk team?

- Are you a woman? They do not conventionally bet on sports unless they have followed an arbitrage e-book or are a bowler account or at least that is the common assumption.

- Are you betting in a size not commonly associated with your demographic? Research of professions and financial standing is becoming more commonplace now. Originally they just wanted to find the rich lawyers, accountants, doctors who are worth offering client entertainment to but now if you find a student betting £1,000 pound a game that is note worthy as well.

- IESnare? Just Google it I guess. There are probably other cookie trackers that are not as well publicised.

- Bet at the same time as several other punters, excluding just before an event starts. Was it arbitrage? Was it a tipster?

- Try never to bet on a fixed match or one that is perceived as possibly fixed intentionally or unintentionally.

- Do not work in the betting or tipster industry, be connected with the betting or tipping industry, friends on Facebook with people in betting or follow people on Twitter from the betting or tipping industry.

While reading this, you may have noticed that many of these points are hard to avoid if your goal is profits. There are still some precautions one take to reduce the risk of being limited. Therefore the next chapter is all about this.

7 How to Avoid Being Limited

FOLLOW OUR RECOMMENDED LEAGUES

Trademate has a filter called recommended leagues. By selecting this, you'll only get edgebets from the leagues with the highest betting limits. This includes Premier League, Primera Divisione, NBA, NFL and many more. These leagues are the ones that most people bet on - so it's easy to hide in the mass of all the non-profitable betters. Betting on a diverse range of national minor league sports does indeed look very suspicious.

BET WHOLE AMOUNTS

Arbitrage betting is very usual in sports betting - so bookmakers look out for betsizing out of the ordinary. Instead of placing the exact recommended Kelly amount of $162, bet $160.

NEVER CASH OUT BEFORE YOU HAVE TO

Never cashout from a bookmaker before you're limited. Bookmakers are paying fees whenever you cash out, so that's an easy way for them to do a second look at your account. So you've tripled your bankroll in the past 3 weeks? Let's take a closer look...

DON'T PUSH THE MAX LIMITS

Let's say you try to place a bet of $250 on a game. The bookmaker may tell you that you can only place $238 on the particular bet. Instead of putting the $238, bet 60-70% of the max stake, in this case $150. Some bookmakers even give you the opportunity to automatically put the max limit of $238 and send the remaining $12 for manual clearance. Never do that. Add in some accumulators with a lower betsize. This will make you look more of a "fun bettor" and its something bookmakers appreciate. Lower your betsize for these as the variance is higher.

ONE BET PER GAME

Bookmakers place betting limits for a reason. The reason is usually that they're not really sure if their odds in a particular game is any good. If someone comes in and places bets on Over 198.5, Over 199.5, Over 200.5 and Over 201.5 - it's pretty clear that they're trying to get value. Bookmakers don't like that. Also - placing more than one bet on a game has a great impact on your variance.

MAKE YOUR FIRST DEPOSIT SMALL

Try to look like a hobby sportsbetter. Depositing $10,000 in a brand new account is an obvious way to tell bookmakers that you're trying to beat them.

WANNA BE REALLY CLEVER? THROW IN AN ACCUMULATOR ONCE IN A WHILE

Bookmakers makes most of their money from accumulators. Their margins increases for each bet in the accumulator. The variance is bigger, but matching different edges still give a positive expected value. By doing this, you look more like a non-profitable player to the bookmakers.

BETTING FROM NETWORKS WHERE OTHERS HAVE BEEN LIMITED

Even if you just log onto your account in a home network where another player have been limited, you risk becoming limited. We do not know yet whether this could include all betting companies owned by the same firm. Which means that if your friend was limited on Betsafe, you have to stay away from Betsafe, and maybe also Betsson and Nordicbet while you're on his home network since all three bookmakers are owned by Betsson. A virtually private network (VPN) could solve this issue.

NOTHING LASTS FOREVER

Unfortunately, by continously placing profitable bets and beating the bookmakers - chances are they will limit you eventually. After all - they are losing money on you. However, by following these steps we are confident that your accounts will last longer, thus making more money from each and every bookmaker. Good luck and happy betting!

CREDITS

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If you have any questions, please do not hesitate to contact us.
This ebook is the third in a series of four ebooks about the topic of betting and value betting, each book with increasing complexity.

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