StatsAI.bet

BETTING STRATEGIES BY THE NUMBERS · 07 / 11

KELLY CRITERION

STRATEGY BY THE NUMBERS

$$f = (b \cdot p - q) \div b$$

THE SHARE OF THE BANKROLL TO STAKE

The one staking formula mathematicians respect. It works only with a real edge and an honest estimate of the chance. Here is what happens with and without one.

4.5%
KELLY STAKE AT ODDS 2.10 AND A 50% CHANCE

82.5%
FULL KELLY: FELL 50% FROM A PEAK

716
MEDIAN AFTER A 3-POINT OVERESTIMATE

OPEN STATSAI.BET →
Free for 7 days · one click with Google or Telegram



Adults only (18+). An explanation backed by simulations. Not a promise of winnings and not betting advice.

STATSAI.BET

BEFORE YOU TRY KELLY CRITERION

KELLY NEEDS ONE HONEST NUMBER: THE REAL CHANCE. THAT IS WHERE IT STARTS.

Every strategy in this series stands or falls on two numbers: the real chance and the odds. StatsAI.bet shows both for today's matches. Create an account in one click with Google or Telegram and use every tool free for the first 7 days. After the trial a free basic level remains.

OPEN STATSAI.BET

FREE, NO ACCOUNT NEEDED

Odds calculator →
fair odds and the margin for any match

Bet slip checker →
the chance of every pick and of the whole slip

System bet calculator →
every combination and the exact payout

High-probability tips →
picks with an 80%+ chance and how often they won

WANT THE BIGGER PICTURE?

Our free AI guide to football statistics (20 pages) explains odds, margin, fair odds, system bets and how AI reads a match, with publicly measured model results.

Download the full guide free →

FOLLOW US

Telegram channel →
match of the day, number of the day, live signal

X @statsai_bet →
tickets of the day and results

Personal bot →
@tipgenbot reminds you of your matches



StatsAI.bet provides statistical estimates and education, not betting advice. Statistics, not a guarantee. 18+.

01

HOW THE KELLY CRITERION WORKS

Kelly answers one question: if a bet has a positive expected value, what share of the bankroll should you stake to grow it as fast as possible over the long run?

01	02	03	04
b	**p**	**q**	**f**
odds − 1 (net payout)	your chance of winning	1 − p, chance of losing	(b·p − q) ÷ b = share to stake



AT A GLANCE

TYPE
proportional staking

BUILT FOR
bets with a measured edge

GOAL
fastest long-run growth

MAIN DANGER
overestimating your edge

Example: odds 2.10 and a real chance of 50%. Then b = 1.10 and f = (1.10 × 0.50 − 0.50) ÷ 1.10 = **4.5%** of the current bankroll. If the result of the formula is zero or negative, the bet has no edge and Kelly says: do not bet.

Unlike the progressions in this series, Kelly does not react to wins and losses. It reacts to the bankroll: the stake is always a share of what you have now, so it shrinks when you lose and grows when you win.

WHERE IT COMES FROM

John L. Kelly Jr., a scientist at Bell Labs, published the formula in 1956 in a paper on information theory. Mathematician Edward Thorp later used it in blackjack and in investing, which made it famous.



PENGUIN TIP

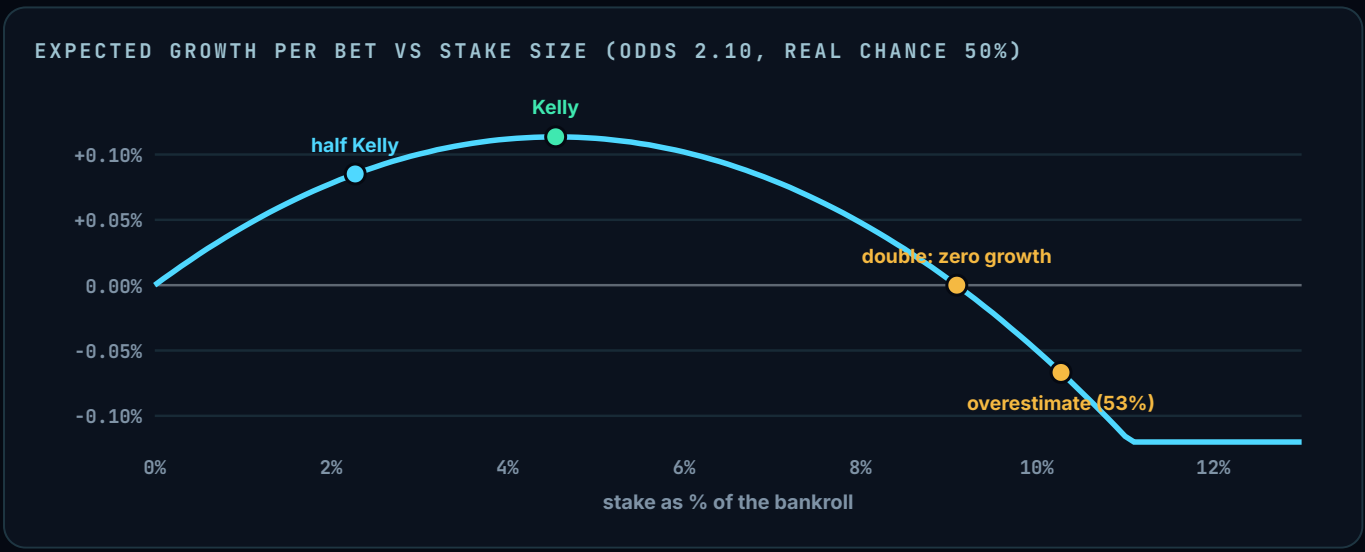
Kelly is not a way to find value. It only tells you how much to stake once you have it. Without a real edge, the right Kelly stake is zero.

02
THE KELLY MAP

The share of the bankroll that Kelly recommends for a given chance and odds. A dash means no edge: the formula says do not bet.

KELLY STAKE (% OF THE BANKROLL): YOUR CHANCE VS THE ODDS

CHANCE \ ODDS	1.50	1.80	2.00	2.20	2.50	3.00	4.00
30%	–	–	–	–	–	–	6.7%
40%	–	–	–	–	0.0%	10.0%	20.0%
45%	–	–	–	–	8.3%	17.5%	26.7%
50%	–	–	–	8.3%	16.7%	25.0%	33.3%
55%	–	–	10.0%	17.5%	25.0%	32.5%	40.0%
60%	–	10.0%	20.0%	26.7%	33.3%	40.0%	46.7%
70%	10.0%	32.5%	40.0%	45.0%	50.0%	55.0%	60.0%



Read it row by row: at a 50% chance, odds of 2.00 have no edge at all, while odds of 2.20 already ask for over 8%. Small changes in the chance or the odds move the stake a lot.

That is why most serious users stake a fraction: **half Kelly** (2.3% in our example) keeps most of the growth with far smaller swings.

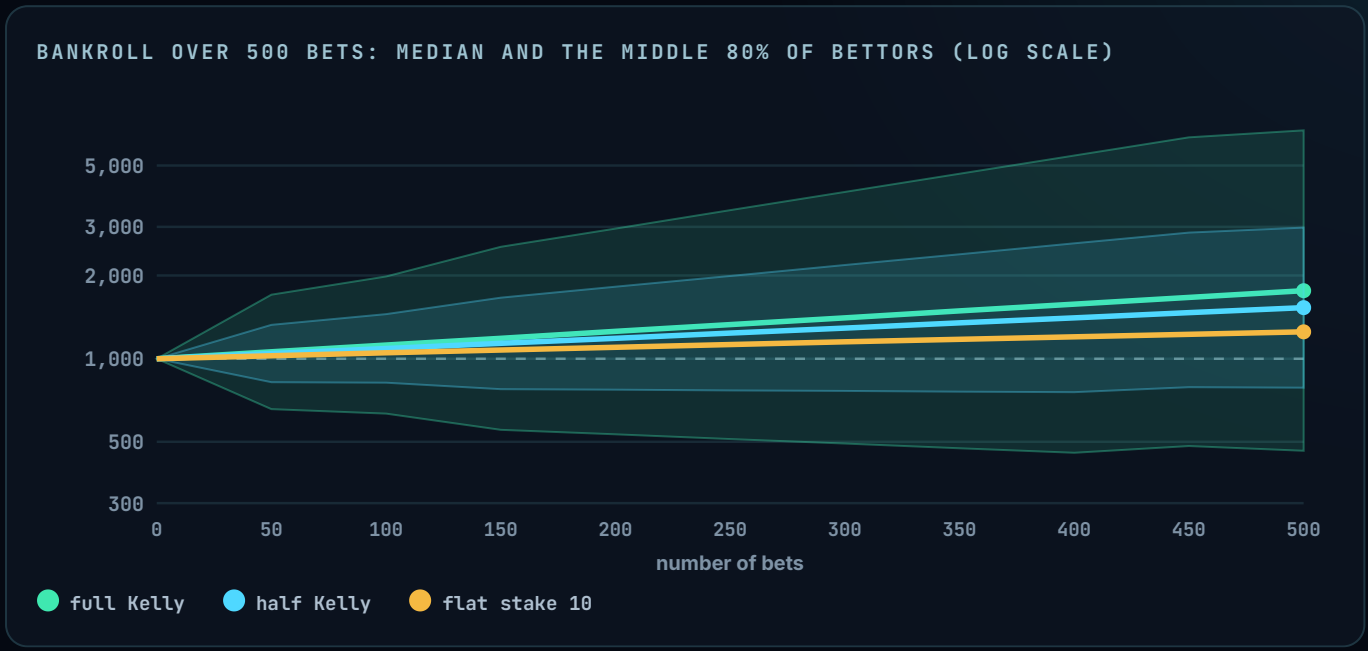
YOUR ESTIMATE IS THE WEAK POINT

Kelly assumes that p is the real chance. If you think it is 53% and it is really 50%, the formula tells you to stake 10.3% instead of 4.5%, more than double. Overconfidence is the most expensive mistake in Kelly betting.

03

10,000 BETTORS WITH A REAL EDGE

Now a case with a genuine edge: odds 2.10, a real chance of 50% (expected value +5%), 500 bets, starting bankroll 1,000. Five plans, the same results for everyone.



PLAN	MEDIAN	WORST 10%	BEST 10%	IN PROFIT	FELL 50%+ FROM A PEAK
Full Kelly (4.5%)	1,764	464	6,698	68.9%	82.5%
Half Kelly (2.3%)	1,531	785	2,984	77.9%	15.0%
Flat stake 10	1,250	956	1,544	85.3%	0.3%
Overestimate: think 53% (10.3%)	716	35	14,618	45.0%	100.0%
Double Kelly (9.1%)	1,000	69	14,421	51.7%	100.0%

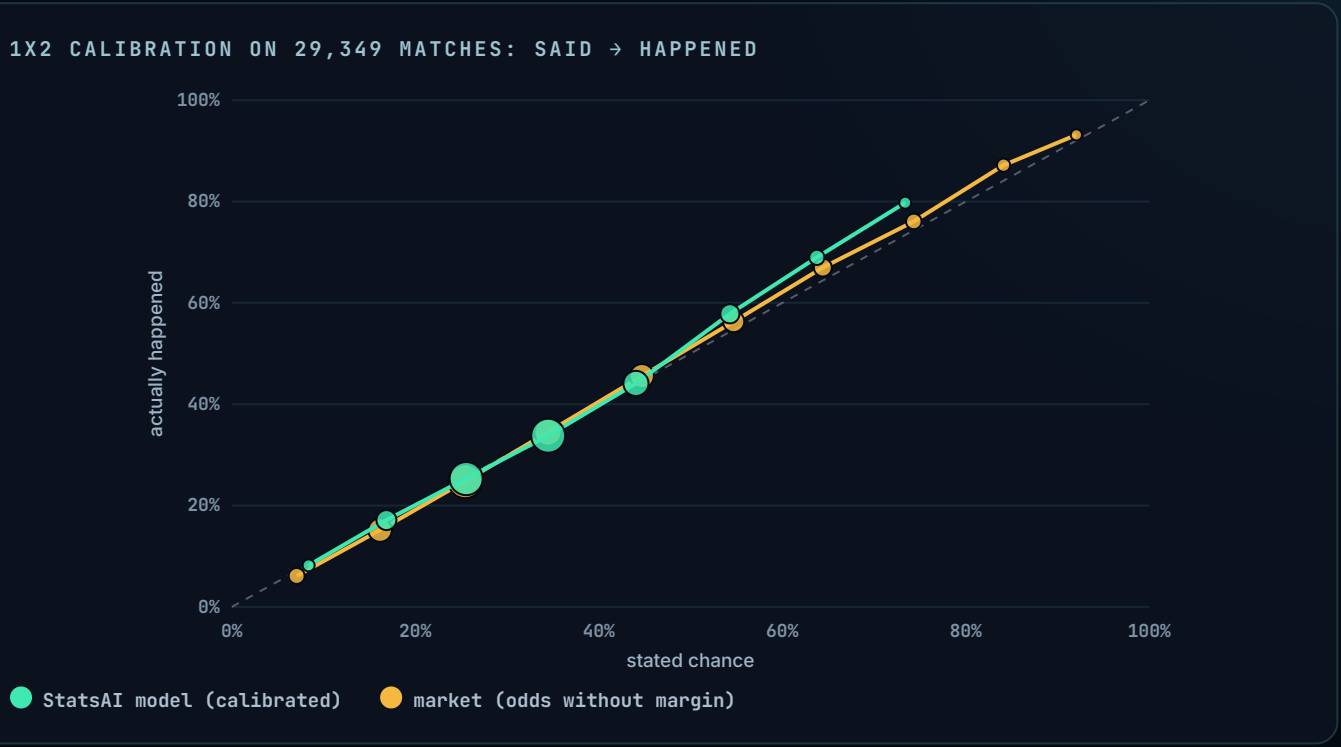
Full Kelly grows the bankroll fastest in the middle, but 82.5% of bettors saw it fall by half from a peak at some point, even with a real edge. Half Kelly gave up a little growth for far calmer results.

The last two rows are the warning. Overestimating the chance by just 3 points drops the median to 716. At double Kelly one win and one loss cancel out exactly, so the median ends where it started: 1,000.

04

WHERE DOES P COME FROM?

Kelly is only as good as the chance you put into it. That chance must be calibrated: when you say 30%, it should happen about 30% of the time.



This chart is from our public measurement (31 Aug 2026 – 18 Nov 2026). Both the model and the margin-free market are well calibrated: the points sit close to the diagonal. The model's calibration error is 0.67 percentage points, the market's 0.79.

But calibration is not the whole story. On accuracy overall (Brier score, lower is better), the margin-free market scored **0.590** and our model 0.629. The market was more accurate. A real edge over the market is rare, and anyone who claims one should show you a measurement like this.

HONESTLY

We publish these numbers because Kelly punishes self-deception. If your estimates are not more accurate than the margin-free odds, the Kelly stake on most bets is zero.



PENGUIN TIP

The fair odds (odds without the margin) are the best starting estimate of the real chance for most bettors. The odds calculator removes the margin for you.

05
VERDICT

Kelly is the only plan in this series that is built on an edge rather than on hope. That is its strength and its limit.

WHAT IT DOES WELL

- \+ Mathematically the fastest long-run growth with a real edge
- \+ The stake shrinks automatically after losses
- \+ Says "do not bet" when there is no edge

WHERE IT BREAKS

- – Needs an honest, calibrated chance for every bet
- – Full Kelly swings hard: 82.5% fell 50% from a peak
- – Overestimating the edge can turn growth into decline
- – A real edge over the margin-free market is rare

RISK **HIGH** with full Kelly; half Kelly lowers the swings a lot

IF YOU WANT TO USE IT

- Use half or a quarter of the Kelly stake.
- Start from the fair odds and move away only with a measured reason.
- Record every estimate and check later whether your 60% really happened about 60% of the time.
- If the formula says zero, do not bet.

Fair odds calculator → AI model performance →

1 · CHANCE
start from the fair odds and adjust only with a measured reason

2 · FORMULA
f = (b·p – q) ÷ b; zero or less means no bet

3 · FRACTION
stake half or a quarter of f, never more than f

06

KEEP LEARNING

A staking plan cannot create an edge. What it can do is decide how fast you lose, how big the swings are and how long you stay in the game. Start from the odds and the real chance: those are on StatsAI.bet for every match today.

OPEN STATSAI.BET FREE FOR 7 DAYS

Telegram channel →
Match of the day at 10:00, Number of the day at 16:00, Live signal in the evening (CET)

X @statsai_bet →
tickets of the day and results with an image

Personal bot @tipgenbot →
reminders for your matches and tickets

StatsAI Academy →
free articles on odds, systems and statistics

THE WHOLE SERIES

01 Martingale: double after a loss
02 Paroli: let the wins ride
03 Fibonacci: the sequence system
04 D'Alembert: one up, one down
05 Labouchère: the cancellation line
06 Oscar's Grind: one unit at a time
07 Kelly Criterion: stake by your edge — YOU ARE HERE
08 Value Betting: price beats prediction
09 Flat Betting: the same stake every time
10 1-3-2-6: four bets, one cycle
11 Dutching: several picks, one payout

Every title is free to read on Scribd: search for StatsAI.bet.

18+

StatsAI.bet provides statistical estimates and education, not betting advice. The simulations show possible outcomes under the stated assumptions; real results differ. Play only with money you can afford to lose, never chase losses, and if betting stops being fun, take a break and seek help.