

Above-Average-Return Candle, NY Morning - 1H & 4H

Instruments : EURUSD, GBPUSD, XAUUSD (Polygon C: forex tickers)
Period : 2010-01-03 -> 2026-07-31

TRIGGER (the 50-EMA has been removed entirely)
ret[i] > mean(ret[:i]) + k*std(ret[:i])
mean/std EXPANDING over PRIOR bars only (shift(1)) - using a
full-sample mean would be lookahead.

k=0 is the literal rule. NOTE: mean FX bar return is ~0, so k=0
reduces to roughly 'the candle is green' - a ~50% coin-flip
condition, not a filter. k=1/k=2 test whether the MAGNITUDE of
an above-average candle carries information.

ret defs: body = (Close-Open)/Open c2c = Close.pct_change()

SESSION WINDOW

Signal candle CLOSE inside 09:30-12:30 New York, computed as
bar-start + duration then converted to NY (DST-correct).
1H -> closes 10:00 / 11:00 / 12:00 NY (3 bars/day)
4H -> exactly ONE bar/day; which one SHIFTS with DST
(11:00 NY winter, 12:00 NY summer)

UNCHANGED stop = signal candle low; target = entry+2R; one open
position at a time across the book; 1% risk compounded; spread
charged (EURUSD 1.0 pip, GBPUSD 1.4 pip, XAUUSD 30c).

PRIOR RESULTS v1 50-EMA 1H: gross E[R] +0.0015 (t=0.04), no edge.
v2 +HTF trend +volume: 0 of 12 cells positive.

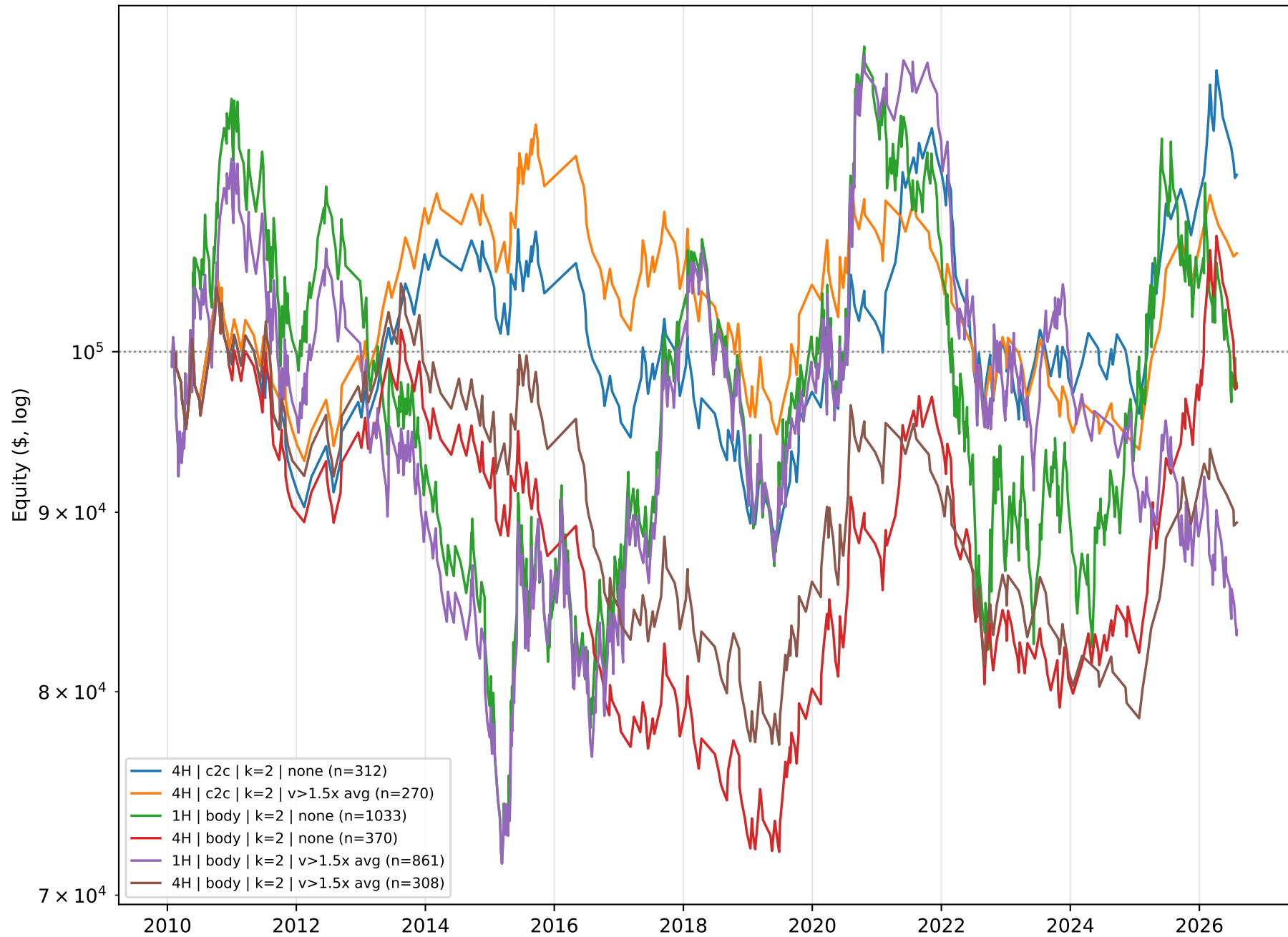
READ THE GRID, NOT THE MAX - with 24 cells the best one is expected
to look decent by chance alone.

Full Grid - 24 Cells

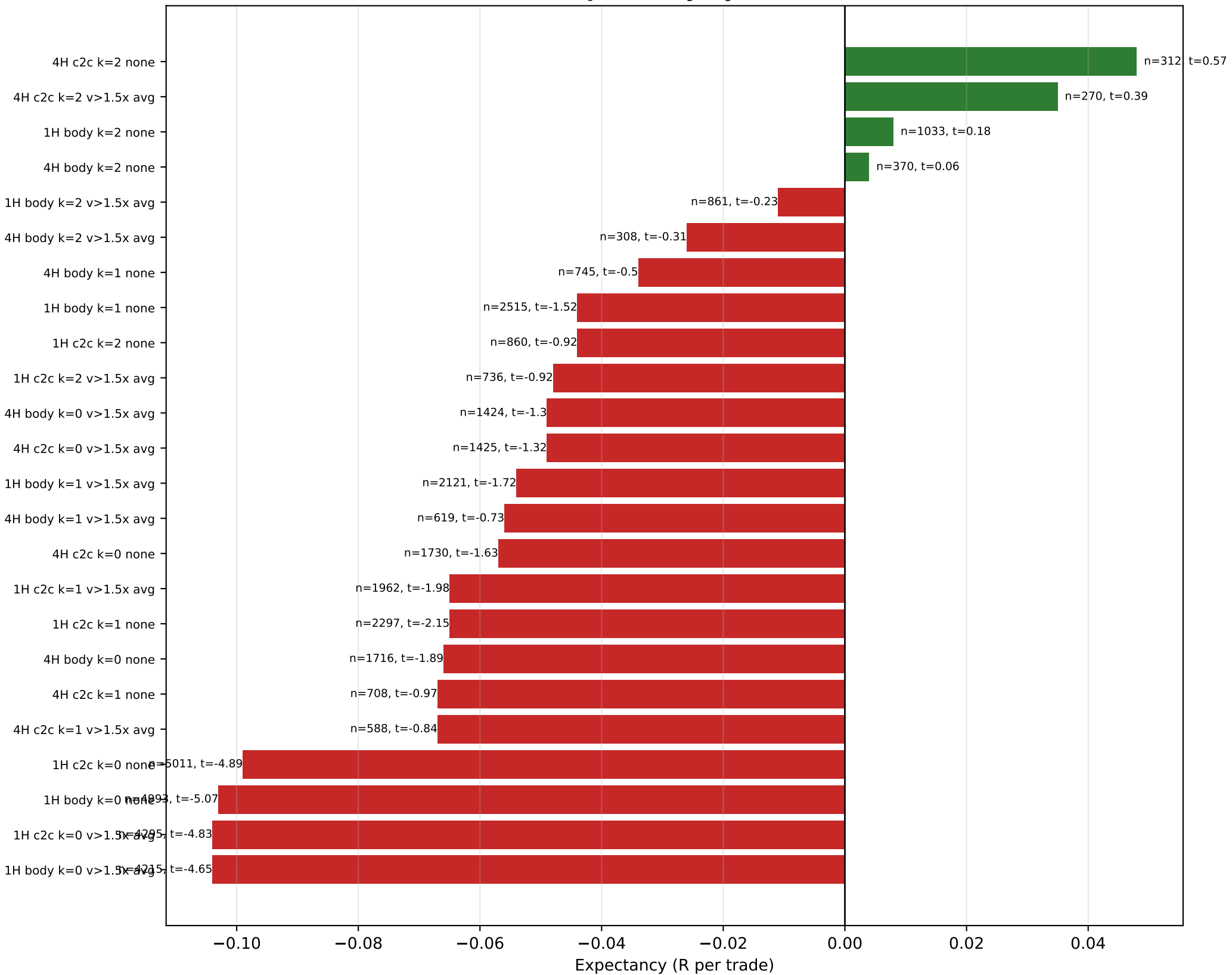
t = t -stat of mean R . $|t| < 2$ is indistinguishable from zero. Breakeven win rate at 1:2 is 33.33%.

TF	Ret	k	Vol	Trades	Win%	TotRet%	CAGR%	MaxDD%	PF	E[R]	t
1H	body	0	none	4993	31.3	-99.6	-28.85	-99.6	0.89	-0.103	-5.07
1H	body	0	v>1.5x avg	4215	31.1	-99.2	-25.38	-99.2	0.9	-0.104	-4.65
1H	body	1	none	2515	32.7	-74.9	-8.03	-81.0	0.93	-0.044	-1.52
1H	body	1	v>1.5x avg	2121	32.3	-74.7	-7.98	-80.3	0.92	-0.054	-1.72
1H	body	2	none	1033	34.2	-2.1	-0.13	-39.5	1.0	0.008	0.18
1H	body	2	v>1.5x avg	861	33.6	-16.7	-1.1	-37.0	0.97	-0.011	-0.23
1H	c2c	0	none	5011	31.4	-99.6	-28.12	-99.6	0.9	-0.099	-4.89
1H	c2c	0	v>1.5x avg	4295	31.3	-99.3	-25.65	-99.3	0.89	-0.104	-4.83
1H	c2c	1	none	2297	32.0	-82.5	-10.0	-86.3	0.91	-0.065	-2.15
1H	c2c	1	v>1.5x avg	1962	31.9	-77.3	-8.58	-81.9	0.91	-0.065	-1.98
1H	c2c	2	none	860	32.4	-37.3	-2.78	-47.5	0.93	-0.044	-0.92
1H	c2c	2	v>1.5x avg	736	32.3	-34.7	-2.55	-42.1	0.92	-0.048	-0.92
4H	body	0	none	1716	32.3	-72.9	-7.63	-76.2	0.89	-0.066	-1.89
4H	body	0	v>1.5x avg	1424	32.6	-56.6	-4.95	-66.4	0.92	-0.049	-1.3
4H	body	1	none	745	34.0	-32.2	-2.34	-47.2	0.91	-0.034	-0.5
4H	body	1	v>1.5x avg	619	33.6	-37.6	-2.83	-49.3	0.88	-0.056	-0.73
4H	body	2	none	370	33.5	-2.2	-0.14	-31.0	0.99	0.004	0.06
4H	body	2	v>1.5x avg	308	32.5	-10.6	-0.68	-26.1	0.94	-0.026	-0.31
4H	c2c	0	none	1730	32.7	-68.6	-6.79	-71.7	0.9	-0.057	-1.63
4H	c2c	0	v>1.5x avg	1425	32.6	-57.1	-5.01	-66.2	0.92	-0.049	-1.32
4H	c2c	1	none	708	32.9	-45.7	-3.65	-51.2	0.86	-0.067	-0.97
4H	c2c	1	v>1.5x avg	588	33.3	-40.2	-3.08	-50.4	0.87	-0.067	-0.84
4H	c2c	2	none	312	34.9	12.3	0.71	-18.5	1.06	0.048	0.57
4H	c2c	2	v>1.5x avg	270	34.4	6.7	0.39	-19.2	1.04	0.035	0.39

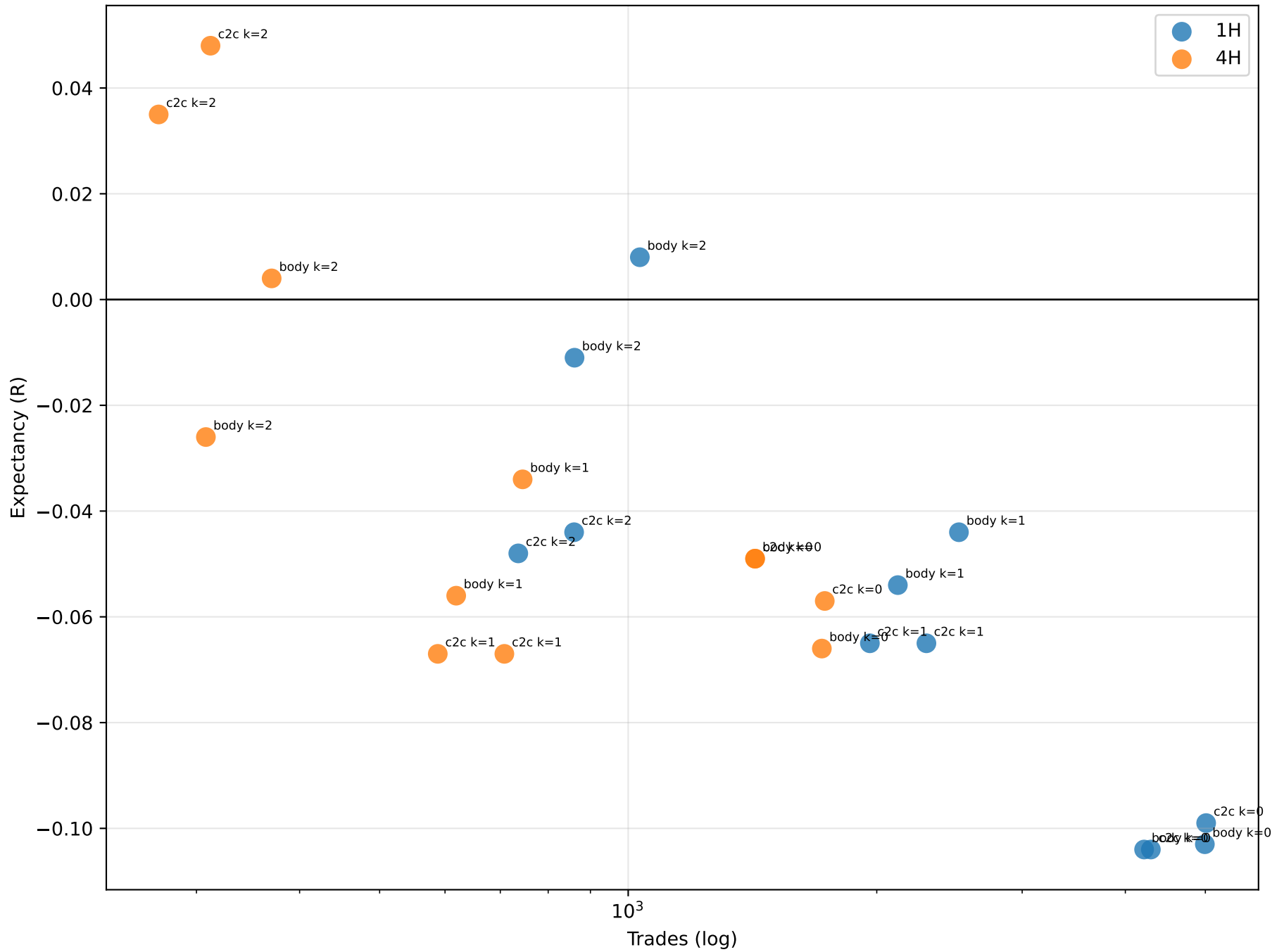
Equity Curves - top 6 cells by expectancy



Expectancy by Cell



1H vs 4H - expectancy against sample size



Verdict

GRID SUMMARY

cells with ≥ 5 trades : 24
cells with $E[R] > 0$: 4
cells with $|t| \geq 2$: 5
cells positive AND $|t| \geq 2$: 0

best $E[R]$: +0.048
median $E[R]$: -0.052
worst $E[R]$: -0.104

1H: median $E[R]$ -0.059, best +0.008, positive cells 1/12
4H: median $E[R]$ -0.049, best +0.048, positive cells 3/12

Breakeven win rate at 1:2 risk-reward is 33.33%.
Spread costs ~6% of R per trade on this book, so a cell
needs a real gross edge just to reach zero.