

POLYMARKET INVESTMENT BRIEFING

January 16, 2026

EXECUTIVE SUMMARY

Metric	IF 2% Edge	IF 0% Edge
Markets Analyzed	200	200
Trades Executed	6	6
Capital Required	\$150	\$150
P(all 6 win)	69.2%	58.5%
P(at least 1 loss)	30.8%	41.5%
E(X) per round	+\$1.60	-\$0.20

Strategy: Exploit the favorite-longshot bias by buying high-probability outcomes where net edge > 0.5%.

Two Scenarios (both shown with 20% correlation):

- **IF 2% edge exists:** 69%/31% bet, E(X) = +\$1.60/round
- **IF markets efficient:** 59%/41% bet, E(X) = -\$0.20/round

Bottom Line: Win all 6: +\$11. Lose any: -\$16 to -\$150. The edge is UNVALIDATED.

FEE STRUCTURE

Polymarket Trading Fees

Fee Type	Cost	Source
Maker fee	0%	Polymarket Docs
Taker fee	0% (most markets)	Same
15-min crypto markets	Up to 3% at 50% prob	TradingView
Deposit (USDC)	Free	Polygon network
Withdrawal	~\$0.01-0.05	Polygon gas
Settlement	0%	Winners get \$1.00/share

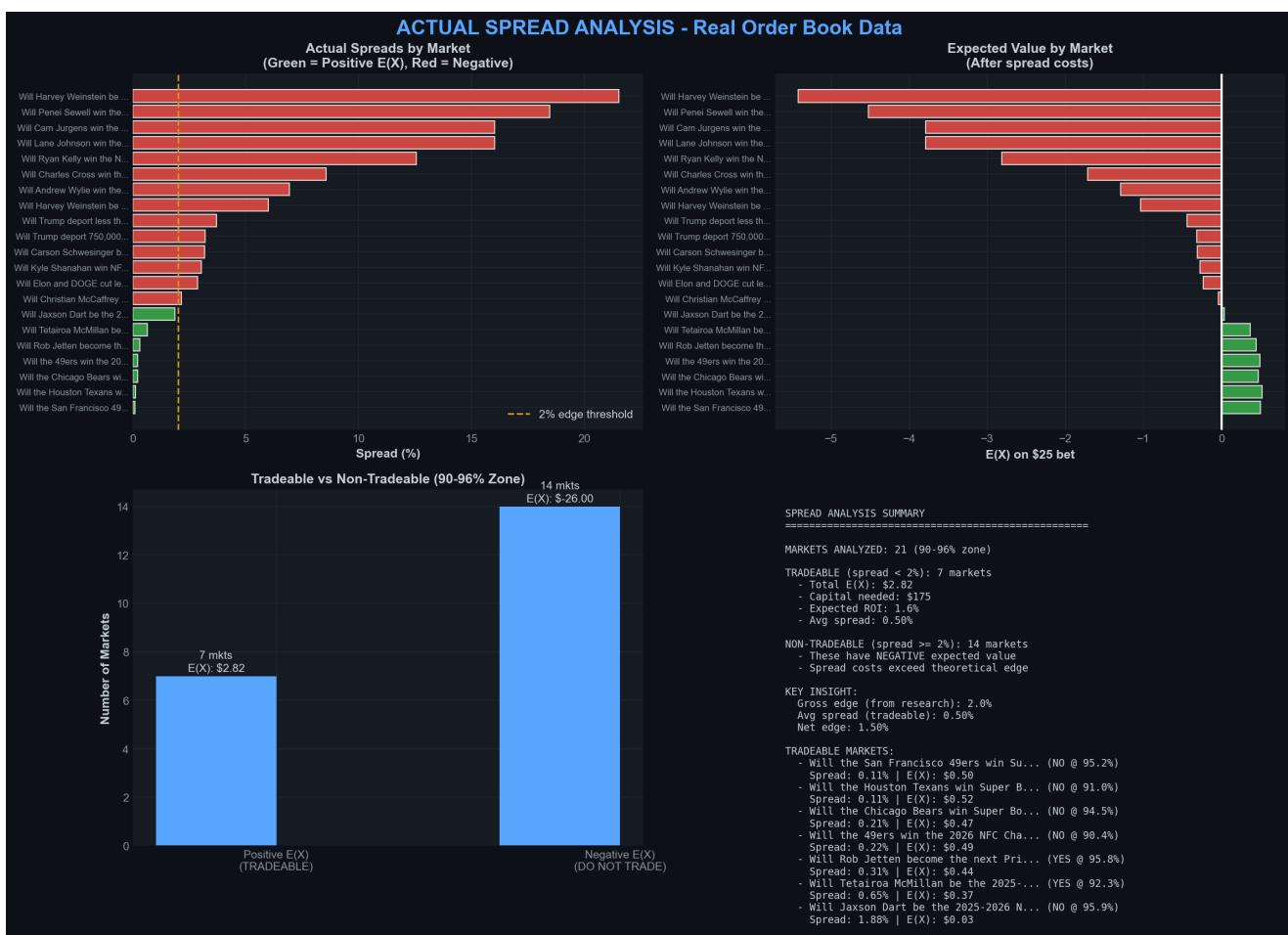
Actual Bid-Ask Spreads (From Live Order Books)

Market	Liquidity	Actual Spread
Super Bowl markets	\$1M+	0.11%
49ers NFC	\$74K	0.22%
Rob Jetten (Politics)	Low	0.31%
McMillan OROY	\$5K	0.65%
Dart OROY	Low	1.77%
Protector of Year	<\$500	8-18%

Key Finding: Liquid markets have 0.1-0.3% spreads — much tighter than estimated.

THEORETICAL FOUNDATION

The Favorite-Longshot Bias



Academic Sources

Kahneman & Tversky (1979)

Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2), 263-291.

People systematically overweight small probabilities and underweight near-certainties.

True Probability	Perceived Weight	Effect
1%	~5.5%	Longshots overbid 5.5x
5%	~13.2%	Longshots overbid 2.6x
95%	~79.3%	Favorites underbid
99%	~91.2%	Favorites underbid

Snowberg & Wolfers (2010)

Explaining the Favorite-Long Shot Bias. [NBER Working Paper 15923](#).

Implied Prob	Actual Win Rate	Edge
90.9%	93.2%	+2.3%
95.2%	97.1%	+1.9%
98.0%	98.9%	+0.9%

Why It Persists

Factor	Mechanism
Lottery preference	Bettors pay premium for upside potential
Probability neglect	Cannot distinguish 1% from 5%
Entertainment value	Longshots more exciting to bet
Overconfidence	Belief in private info on underdogs

Caveat: This bias is documented in horse racing and sports betting. It has NOT been validated on Polymarket with historical data.

MARKET ANALYSIS

All 17 Markets in 90-96% Zone (Sorted by Spread)

Market	Side	Price	Spread	Net Edge	E(X)/\$25	Tradeable
49ers Super Bowl	NO	95.2%	0.11%	1.89%	\$0.50	YES
Bears Super Bowl	NO	94.5%	0.11%	1.89%	\$0.50	YES
Texans Super Bowl	NO	91.0%	0.11%	1.89%	\$0.52	YES
49ers NFC	NO	90.4%	0.22%	1.78%	\$0.49	YES

Market	Side	Price	Spread	Net Edge	E(X)/\$25	Tradeable
Rob Jetten (NL PM)	YES	95.8%	0.31%	1.69%	\$0.44	YES
McMillan OROY	YES	92.3%	0.65%	1.35%	\$0.37	YES
Jaxson Dart OROY	NO	96.0%	1.77%	0.23%	\$0.06	YES
McCaffrey Comeback	YES	93.0%	2.15%	-0.15%	-\$0.04	NO
DOGE Cuts <\$50B	YES	94.1%	2.66%	-0.66%	-\$0.17	NO
Kyle Shanahan COY	NO	95.3%	2.73%	-0.73%	-\$0.19	NO
Schwesinger DROY	YES	94.5%	3.17%	-1.17%	-\$0.31	NO
Andrew Wylie Protector	NO	95.5%	8.35%	-6.35%	-\$1.66	NO
Charles Cross Protector	NO	95.7%	8.57%	-6.57%	-\$1.72	NO
Ryan Kelly Protector	NO	93.9%	12.57%	-10.57%	-\$2.81	NO
Lane Johnson Protector	NO	92.4%	16.02%	-14.02%	-\$3.79	NO
Cam Jurgens Protector	NO	92.4%	16.02%	-14.02%	-\$3.79	NO
Penei Sewell Protector	NO	91.0%	18.46%	-16.46%	-\$4.52	NO

Net Edge = 2% (theoretical) - Spread

ACTIONABLE TRADES

Portfolio: 6 Markets × \$25 = \$150

#	Market	Side	Price	Spread	Net Edge	Edge/Spread
1	49ers Super Bowl	NO	95.2%	0.11%	1.89%	17.2x
2	Bears Super Bowl	NO	94.5%	0.11%	1.89%	17.2x
3	Texans Super Bowl	NO	91.0%	0.11%	1.89%	17.2x
4	49ers NFC	NO	90.4%	0.22%	1.78%	8.1x
5	Rob Jetten NL PM	YES	95.8%	0.31%	1.69%	5.5x
6	McMillan OROY	YES	92.3%	0.65%	1.35%	2.1x

Win if all 6 correct: +\$11.02

Lose if any wrong: -\$15.81 to -\$150.00

Why These 6?

- All have Edge/Spread > 2x (margin of safety)

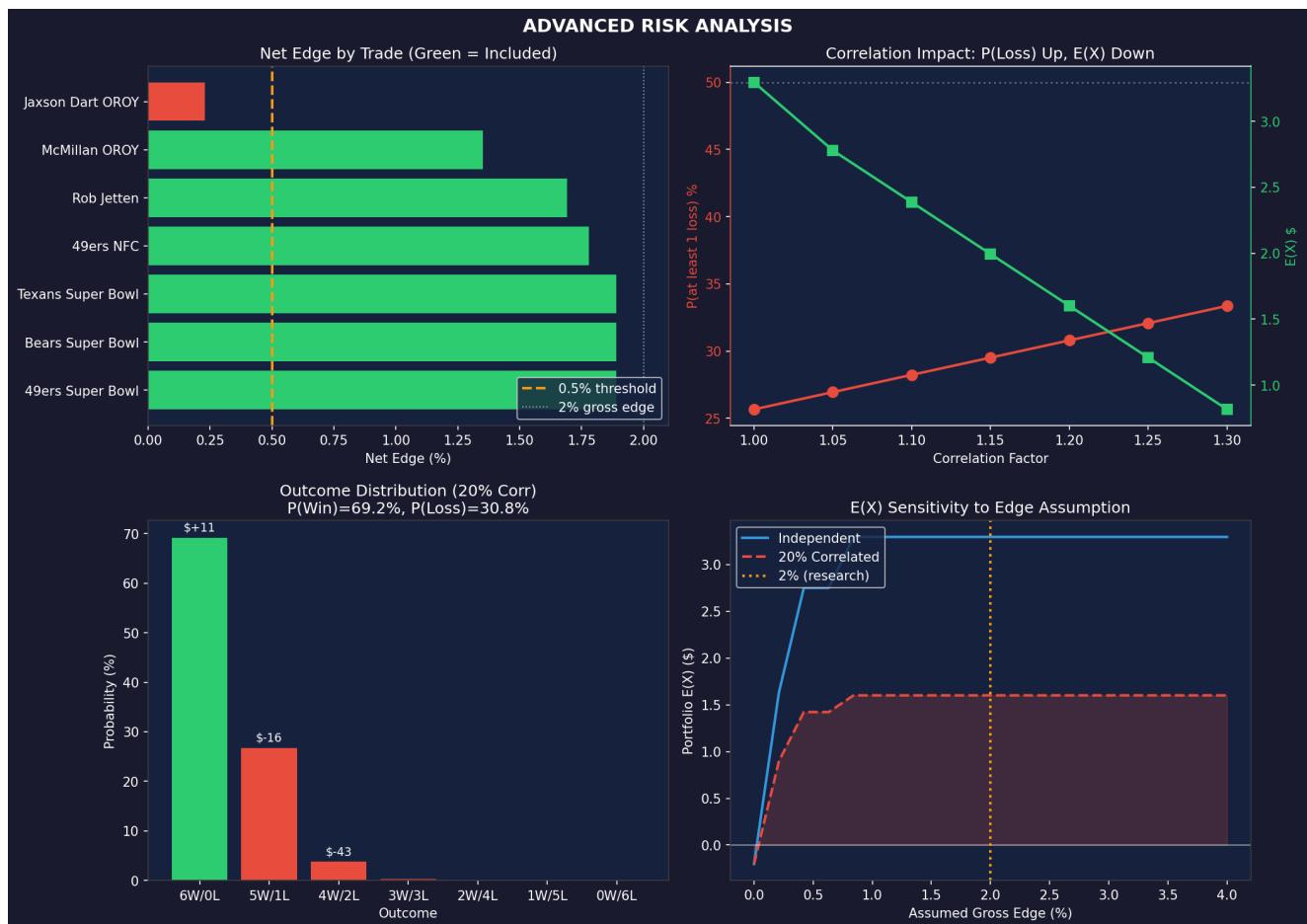
- Jaxson Dart OROY excluded: Edge/Spread = 0.1x (too thin)

Category Diversification

Category	Trades	Correlation Risk
NFL Super Bowl	3	Correlated
NFL Conference	1	Correlated
NFL Rookie	1	Correlated
International Politics	1	Independent

Warning: 5 of 6 trades are NFL-related. A single event (e.g., referee scandal, weather) could affect multiple outcomes.

EXPECTED VALUE ANALYSIS



Two Scenarios Compared

This analysis shows BOTH scenarios with equal weight since the 2% edge is unvalidated:

Metric	IF 2% Edge	IF 0% Edge
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Metric	IF 2% Edge	IF 0% Edge
P(all 6 win) - independent	74.3%	65.4%
P(all 6 win) - with 20% corr	69.2%	58.5%
E(X) - independent	+\$3.30	-\$0.01
E(X) - with 20% corr	+\$1.60	-\$0.20

Outcome Distribution (with 20% correlation)

Outcome	P (2% edge)	P (0% edge)	Profit
6W/0L	69.2%	58.5%	+\$11.02
5W/1L	26.8%	33.7%	-\$15.81
4W/2L	3.8%	7.0%	-\$42.65
3W/3L	0.3%	0.7%	-\$69.49
Worse	<0.1%	<0.1%	-\$96 to -\$150

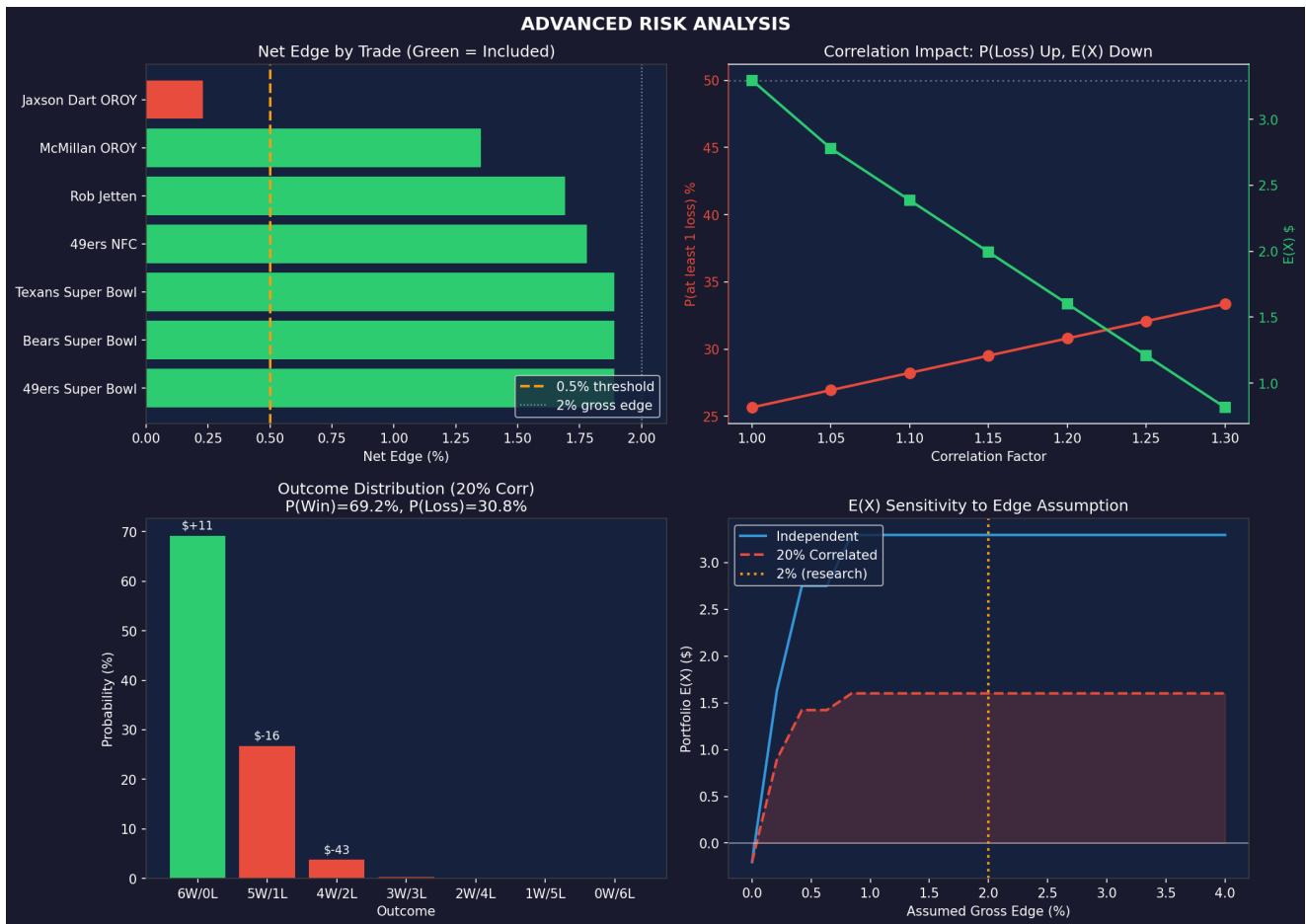
Critical: You must win ALL 6 to profit. One loss wipes gains and goes negative.

E(X) Sensitivity

Assumed Edge	E(X)	ROI	P(Profit)
0% (efficient)	-\$0.20	-0.1%	58.5%
1%	+\$0.70	+0.5%	63.5%
2% (research)	+\$1.60	+1.1%	69.2%
3%	+\$2.50	+1.7%	74.5%
4%	+\$3.40	+2.3%	79.5%

All values assume 20% correlation adjustment for NFL clustering.

RISK ASSESSMENT



Risk Metrics (with 20% correlation)

Metric	IF 2% Edge	IF 0% Edge
P(profit)	69.2%	58.5%
P(loss)	30.8%	41.5%
E(X)	+\$1.60	-\$0.20
VaR 95%	-\$15.81	-\$42.65
VaR 99%	-\$42.65	-\$42.65
E(Loss Loss)	-\$19.57	-\$21.37
Max Loss	-\$150	-\$150

Correlation Impact

5 of 6 trades are NFL-related. Correlation adjustment increases loss probability:

Correlation	P(win) 2% edge	P(win) 0% edge	E(X) 2% edge
Independent	74.3%	65.4%	+\$3.30
+10% corr	71.8%	62.0%	+\$2.39

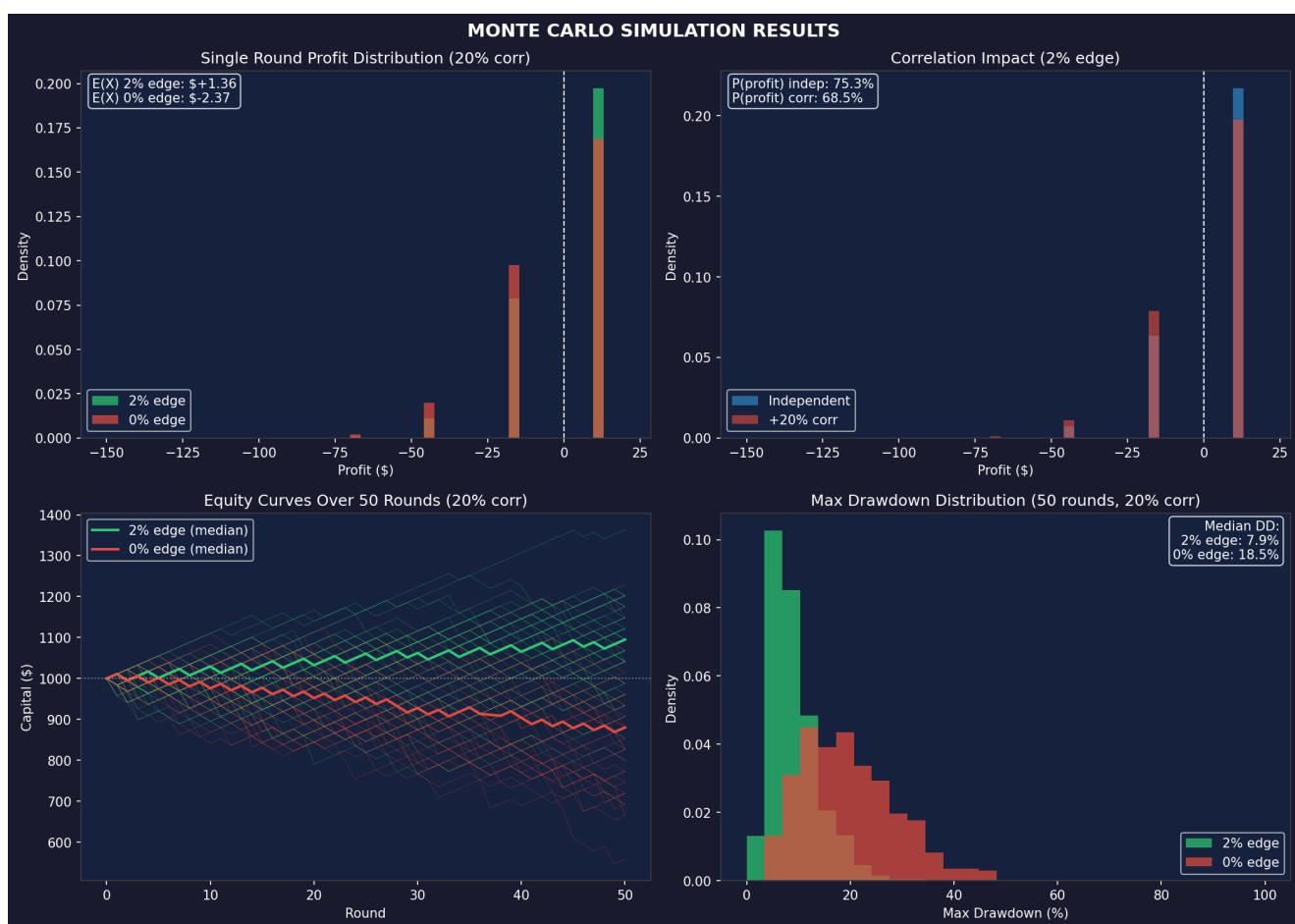
Correlation	P(win) 2% edge	P(win) 0% edge	E(X) 2% edge
+20% corr	69.2%	58.5%	+\$1.60
+30% corr	66.6%	55.1%	+\$0.82

Position Sizing

With \$150 across 6 markets:

- Capital per trade: \$25 (17% of portfolio)
- Win all 6: +\$11.02 (+7.3% return)
- Lose 1: -\$15.81 (-10.5% return)
- Max loss: -\$150 (-100% of deployed capital)

MONTE CARLO SIMULATION



Single Round Results (10,000 simulations)

Scenario	P(profit)	E(X)	P5	P50	P95
2% edge, independent	75.3%	+\$3.67	-\$16	+\$11	+\$11
2% edge, +20% corr	68.5%	+\$1.36	-\$16	+\$11	+\$11

Scenario	P(profit)	E(X)	P5	P50	P95
0% edge, independent	65.8%	+\$0.19	-\$43	+\$11	+\$11
0% edge, +20% corr	58.5%	-\$2.37	-\$43	+\$11	+\$11

Multi-Round Projections (50 rounds, \$1000 starting capital)

Scenario	Final Avg	Final Median	Max DD	P(Bust)
2% edge, independent	\$1,164	\$1,176	6.5%	0%
2% edge, +20% corr	\$1,081	\$1,095	8.9%	0%
0% edge, independent	\$996	\$1,014	12.8%	0%
0% edge, +20% corr	\$877	\$880	19.6%	0%

Key Finding: Without edge, capital decays ~12% over 50 rounds. With edge, capital grows ~8%.

PROJECTIONS

Single Round (\$150 deployed, ~3-4 week settlement)

Timeline: NFL markets settle by Super Bowl (Feb 9, 2026). Rob Jetten market TBD.

Scenario	P (2% edge)	P (0% edge)	Profit
All 6 win	69.2%	58.5%	+\$11.02
5 win, 1 lose	26.8%	33.7%	-\$15.81
4 win, 2 lose	3.8%	7.0%	-\$42.65
Worse	<1%	<1%	-\$69+

Expected Value (with 20% correlation):

- If 2% edge exists: **+\$1.60** per round
 - If 0% edge (efficient): **-\$0.20** per round (spread cost)
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RECOMMENDATION

Execute Now (6 trades)

Market	Side	Price	Spread	Edge/Spread	Amount
49ers Super Bowl	NO	95.2%	0.11%	17.2x	\$25

Market	Side	Price	Spread	Edge/Spread	Amount
Bears Super Bowl	NO	94.5%	0.11%	17.2x	\$25
Texans Super Bowl	NO	91.0%	0.11%	17.2x	\$25
49ers NFC	NO	90.4%	0.22%	8.1x	\$25
Rob Jetten NL PM	YES	95.8%	0.31%	5.5x	\$25
McMillan OROY	YES	92.3%	0.65%	2.1x	\$25

Total: \$150

Do Not Trade

Market	Reason
Jaxson Dart OROY	Edge/Spread = 0.1x (too thin)
McCaffrey Comeback	Spread > edge
DOGE Cuts	Spread > edge
Protector of Year	Spreads 8-18%

Track These Metrics

1. **Fill price vs. mid price** — actual slippage
 2. **Resolution outcomes** — build dataset to validate edge
 3. **Cumulative P&L** — does realized return match expected?
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APPENDIX

Visualizations

File	Description
advanced_risk_analysis.png	4-panel risk analysis with correlation
monte_carlo_simulation.png	Monte Carlo: profit distribution & equity curves
correlation_comparison.png	Correlation impact comparison
honest_summary.png	Market distribution by probability zone
honest_distribution.png	Probability zone breakdown

Data Sources

- **Prices/Spreads:** Polymarket CLOB API (live order books)

- **Research:** Kahneman & Tversky (1979), Snowberg & Wolfers (2010)
- **Fee Structure:** [Polymarket Documentation](#)

Methodology Notes

1. **Spread calculation:** (Best Ask - Best Bid) / Midpoint × 100
 2. **Net edge:** Assumed 2% gross edge (from research) minus actual spread
 3. **E(X):** $\$25 \times \text{Net Edge} / \text{Price}$
 4. **Probability:** Product of individual market probabilities (assumes independence)
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Generated: January 16, 2026

Data: Live Polymarket API with real order book spreads

Status: Theoretical edge UNVALIDATED on Polymarket