

# POLYMARKET INVESTMENT BRIEFING

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January 16, 2026

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## EXECUTIVE SUMMARY

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

**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,  $E(X) = +\$1.60/\text{round}$
- **IF markets efficient:** 59%/41% bet,  $E(X) = -\$0.20/\text{round}$

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

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## FEE STRUCTURE

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### Polymarket Trading Fees

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

### Actual Bid-Ask Spreads (From Live Order Books)

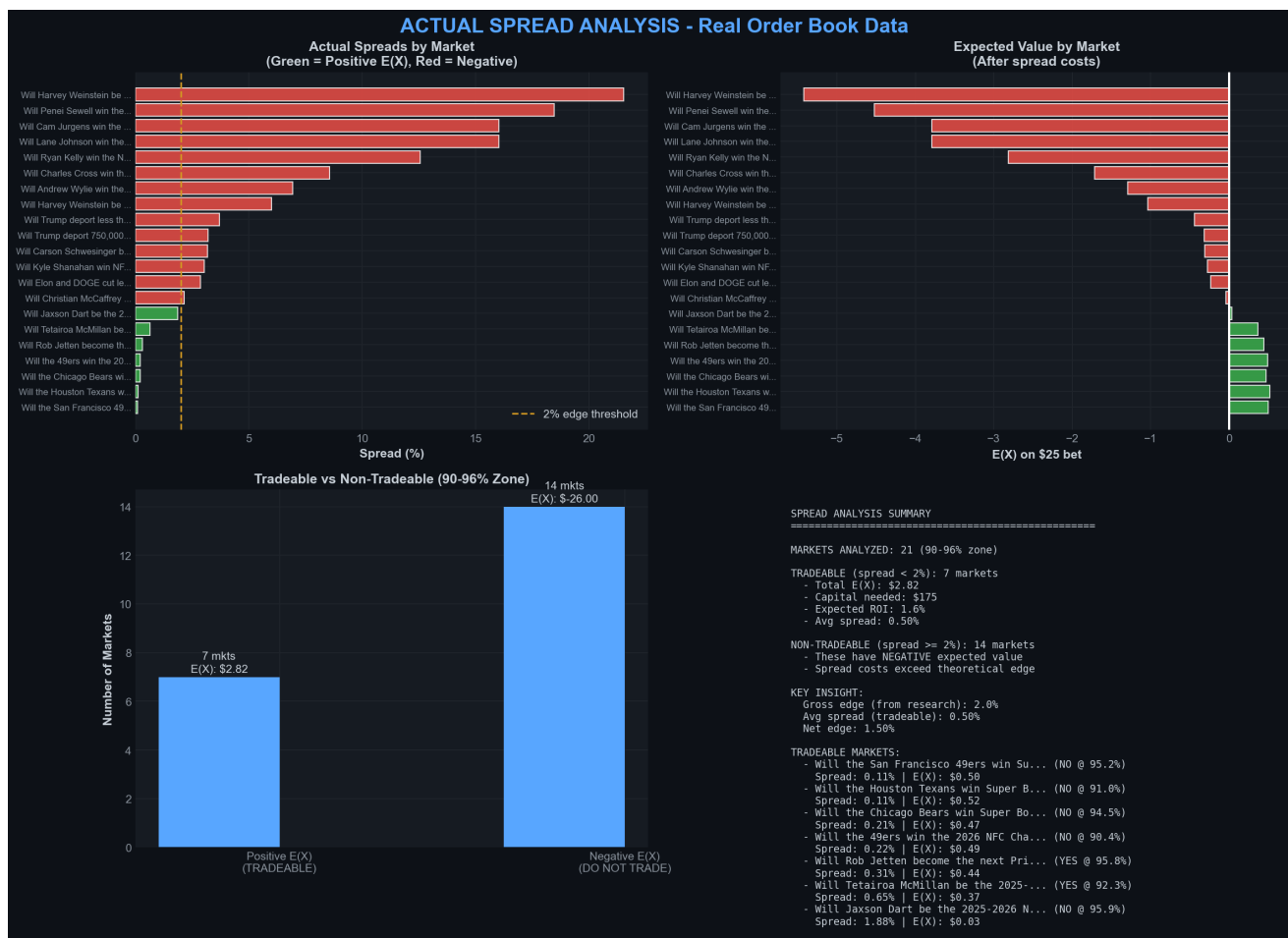
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Market	Liquidity	Actual Spread
Super Bowl markets	\$1M+	<b>0.11%</b>
49ers NFC	\$74K	<b>0.22%</b>
Rob Jetten (Politics)	Low	<b>0.31%</b>
McMillan OROY	\$5K	<b>0.65%</b>
Dart OROY	Low	<b>1.77%</b>
Protector of Year	<\$500	<b>8-18%</b>

**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%	<b>Favorites underbid</b>
99%	~91.2%	<b>Favorites underbid</b>

### Snowberg & Wolfers (2010)

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

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

### 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%	<b>\$0.50</b>	<b>YES</b>
Bears Super Bowl	NO	94.5%	0.11%	1.89%	<b>\$0.50</b>	<b>YES</b>
Texans Super Bowl	NO	91.0%	0.11%	1.89%	<b>\$0.52</b>	<b>YES</b>
49ers NFC	NO	90.4%	0.22%	1.78%	<b>\$0.49</b>	<b>YES</b>

Market	Side	Price	Spread	Net Edge	E(X)/\$25	Tradeable
Rob Jetten (NL PM)	YES	95.8%	0.31%	1.69%	<b>\$0.44</b>	<b>YES</b>
McMillan OROY	YES	92.3%	0.65%	1.35%	<b>\$0.37</b>	<b>YES</b>
Jaxson Dart OROY	NO	96.0%	1.77%	0.23%	<b>\$0.06</b>	<b>YES</b>
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%	<b>17.2x</b>
2	Bears Super Bowl	NO	94.5%	0.11%	1.89%	<b>17.2x</b>
3	Texans Super Bowl	NO	91.0%	0.11%	1.89%	<b>17.2x</b>
4	49ers NFC	NO	90.4%	0.22%	1.78%	<b>8.1x</b>
5	Rob Jetten NL PM	YES	95.8%	0.31%	1.69%	<b>5.5x</b>
6	McMillan OROY	YES	92.3%	0.65%	1.35%	<b>2.1x</b>

**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)

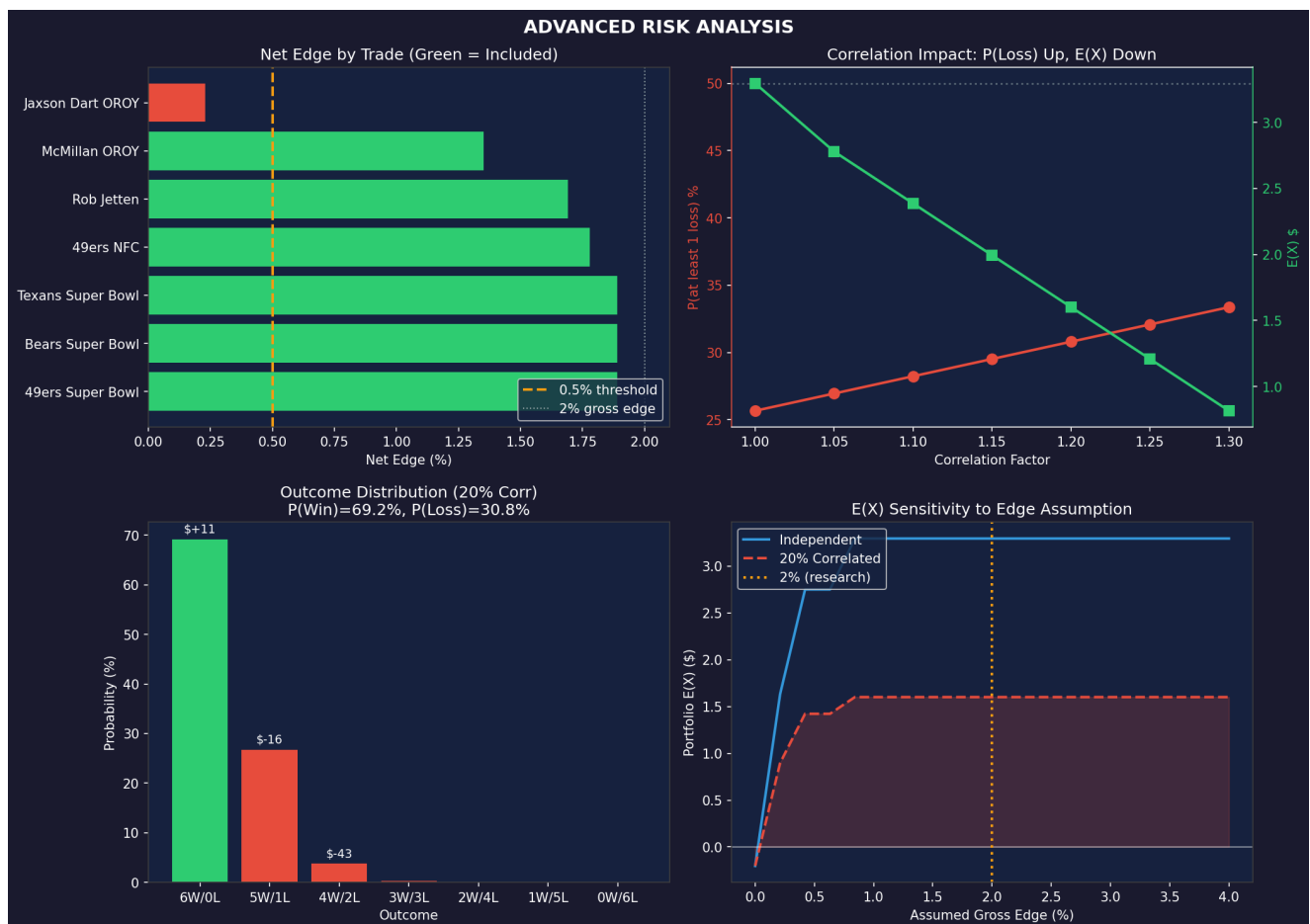
- Jaxson Dart OROY excluded: Edge/Spread = 0.1x (too thin)

## 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	<b>69.2%</b>	<b>58.5%</b>
E(X) - independent	+\$3.30	-\$0.01
E(X) - with 20% corr	<b>+\$1.60</b>	<b>-\$0.20</b>

## Outcome Distribution (with 20% correlation)

Outcome	P (2% edge)	P (0% edge)	Profit
6W/0L	<b>69.2%</b>	<b>58.5%</b>	+\$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

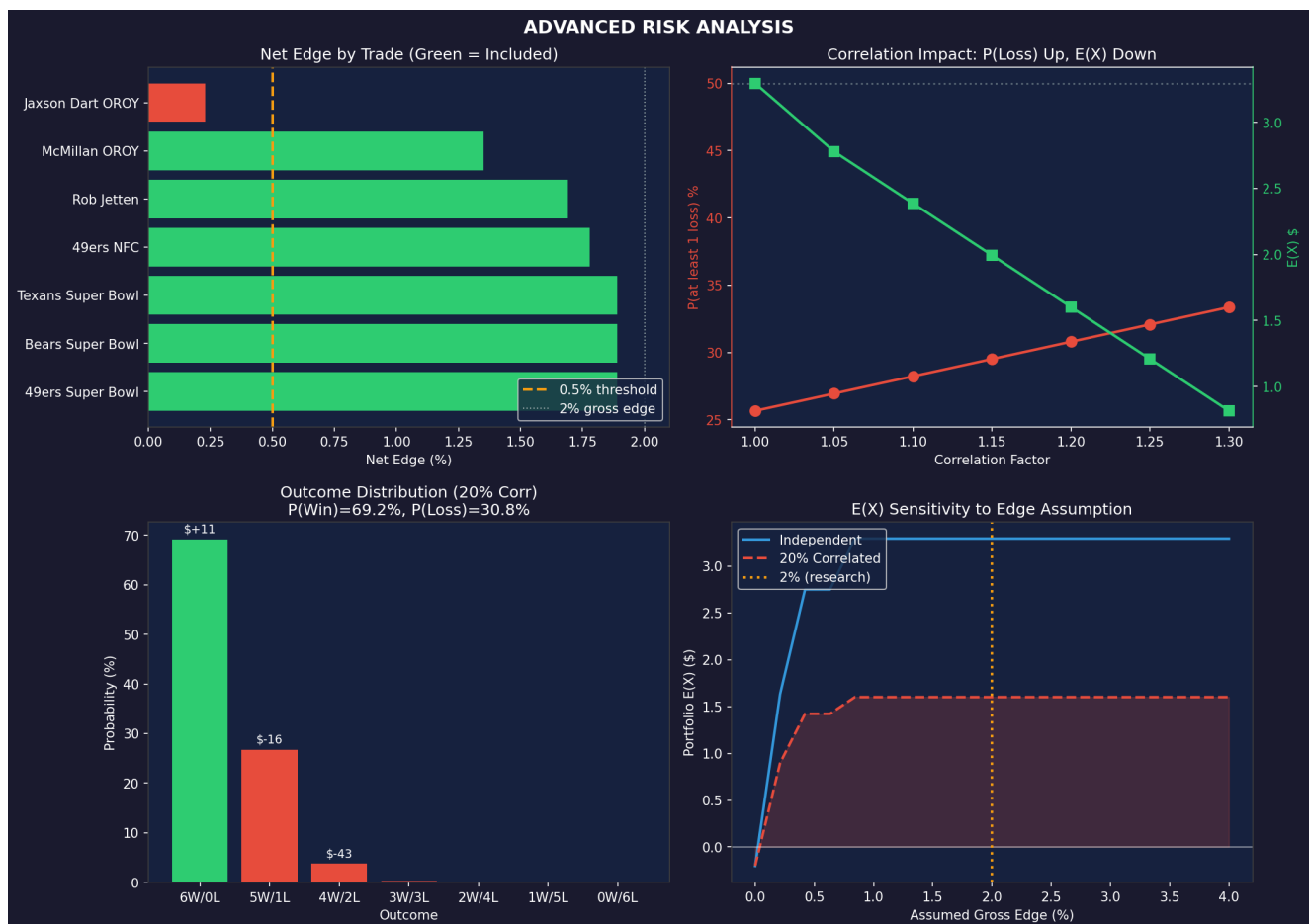
**Critical:** You must win ALL 6 to profit. One loss wipes gains and goes negative.

## 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%
<b>2% (research)</b>	<b>+\$1.60</b>	<b>+1.1%</b>	<b>69.2%</b>
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

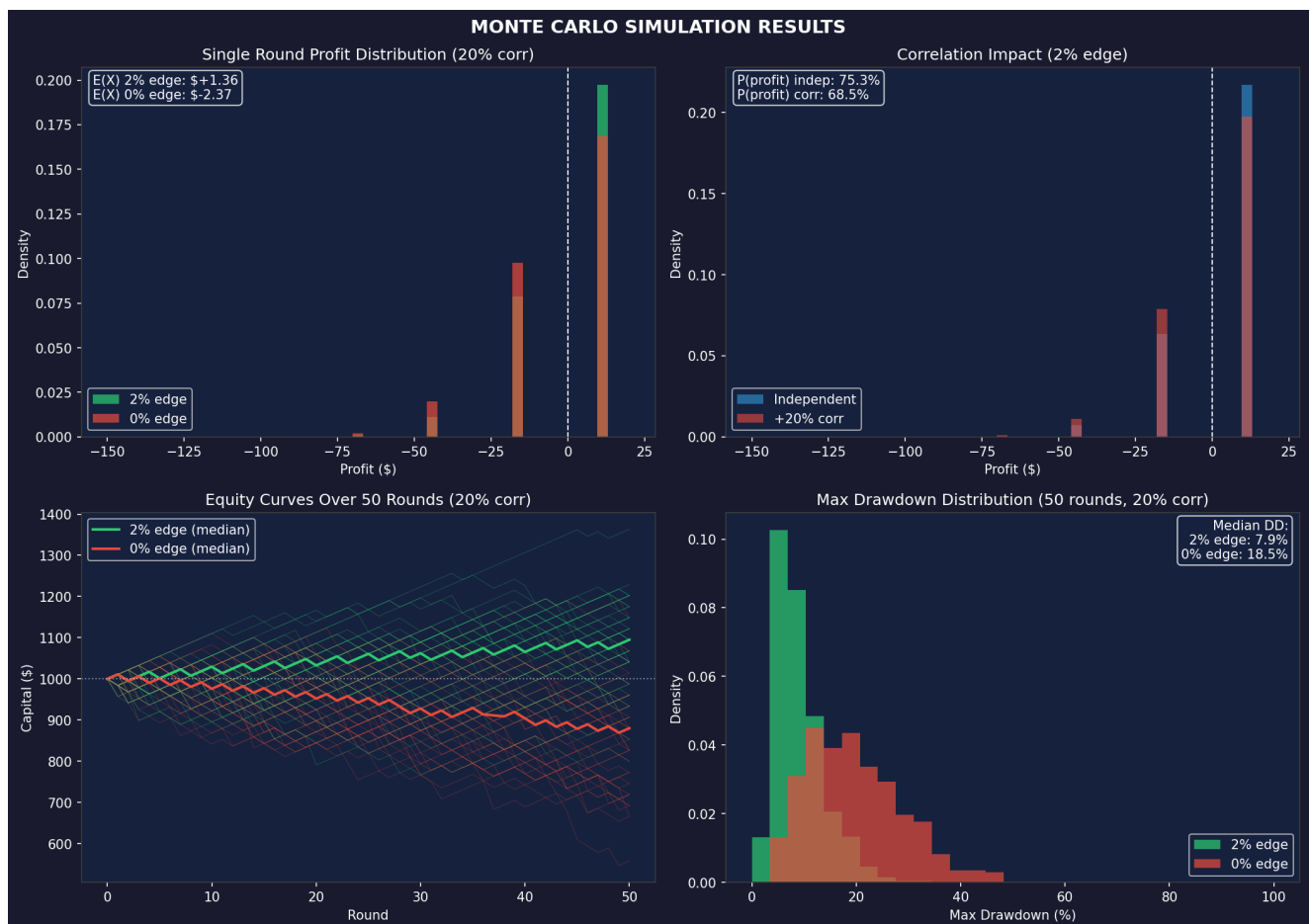
Correlation	P(win) 2% edge	P(win) 0% edge	E(X) 2% edge
<b>+20% corr</b>	<b>69.2%</b>	<b>58.5%</b>	<b>+\$1.60</b>
+30% corr	66.6%	55.1%	+\$0.82

## 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	<b>68.5%</b>	<b>+\$1.36</b>	-\$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	<b>58.5%</b>	<b>-\$2.37</b>	-\$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	<b>\$1,081</b>	<b>\$1,095</b>	<b>8.9%</b>	<b>0%</b>
0% edge, independent	\$996	\$1,014	12.8%	0%
0% edge, +20% corr	<b>\$877</b>	<b>\$880</b>	<b>19.6%</b>	<b>0%</b>

**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	<b>69.2%</b>	<b>58.5%</b>	+\$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)

## 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?

# APPENDIX

## Visualizations

File	Description
<a href="#">advanced_risk_analysis.png</a>	<b>4-panel risk analysis with correlation</b>
<a href="#">monte_carlo_simulation.png</a>	<b>Monte Carlo: profit distribution &amp; equity curves</b>
<a href="#">correlation_comparison.png</a>	<b>Correlation impact comparison</b>
<a href="#">honest_summary.png</a>	Market distribution by probability zone
<a href="#">honest_distribution.png</a>	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:**  $(\text{Best Ask} - \text{Best Bid}) / \text{Midpoint} \times 100$
  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*