# Forecasting the 2024 U.S. Presidential Election: Financial Markets Trump Opinion Polls and Prediction Markets

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#### Abstract

This study compares the accuracy of different methods for predicting the 2024 US presidential election winner. While assets directly tied to election outcomes may seem intuitively appealing for predicting election probabilities, options on broader market indices, can provide a more reliable indicator of election expectations and associated risks. The analysis reveals that election forecasts derived from options prices on the S&P 500 index consistently outperformed other methods in predicting Trump's win probability. While models based on public opinion surveys underestimated Trump's chances, prediction markets were prone to overestimation and excessive volatility. The empirical evidence also indicates that neither a lack of liquidity nor traders' unrepresentativeness and/or partisan bias explain the inaccuracies in prediction markets, and that option traders correctly priced the increase in the S&P 500 index following a Trump victory. These findings demonstrate that financial markets can consistently outperform other alternatives in making accurate predictions.

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### Introduction

Much has been written about the ability of prediction markets to forecast the 2024 US presidential election outcome. For example, according to Ferguson and Rincon-Cruz, the 2024 election "... may go down in history as the last election when we paid more attention to self-anointed election experts than to prediction markets ..." (Ferguson and Rincon-Cruz, 2024). Similarly, Koleman Strumpf, an expert on prediction markets, noted that nobody came close to prediction markets in forecasting the outcome of the 2024 Presidential Election (Oldreal, 2024). Yet, while platforms like Polymarket and Kalshi have garnered significant attention for their ability to correctly predict Donald Trump's victory, another market has quietly demonstrated an even more impressive track record: the options market.<sup>1</sup>

Derivatives pricing studies show that options with varying expiration dates can be used to quantify the likelihood of future events that may significantly affect asset prices. Building on this insight, I use daily data from S&P 500 options to generate time-varying estimates of the probability of Donald Trump winning the U.S. presidential election in 2024. A comparison of election forecasts based on different techniques reveals that in the campaign's closing month, most predictions based on public opinion polls underestimated the likelihood of a Trump victory. In the case of prediction markets, they not only overestimated Trump's win probability, but forecasts based on this source of information exhibited significant variance. In contrast, my estimates derived from option prices provide a more accurate and stable estimates of Trump's winning probabilities, consistently showing a closer alignment to the actual outcome and exhibiting less variability than the other approaches.

The empirical evidence also indicates that during the final month of the campaign, the stock price of Trump Media & Technology Group (DJT), a company closely associated

<sup>&</sup>lt;sup>1</sup>Options are financial contracts that give the buyer the right, but not the obligation, to buy or sell a stock or other asset at a specified price by a certain date. They are traded on individual stocks, indices, and other assets, with expiration dates ranging from a few hours to several years.

with the president elect, exhibited a strong correlation with the election odds of prediction markets, but did not show a meaningful correlation with the S&P 500 index. In contrast, the S&P 500 index was strongly correlated with its own options; but also had a significant correlation with the election odds implied by option markets. These patterns suggest that the key factor behind the inaccuracies and excessive volatility in prediction markets was the traders' concentrated stake in the election outcome, rather than a lack of liquidity or the traders' unrepresentativeness and/or partisan bias. Finally, my analysis reveals that option traders anticipated a 2.68% increase in the S&P 500 index following a Trump victory, which closely matched the actual outcome. This finding reinforces the idea that financial markets can outperform other alternatives in making electoral forecasts.

## 1 Election-Induced Volatility and Market Expectations

Consider an election at time  $T_e$ , and let  $\sigma_t$  denote the annualized implied volatility at time  $t \leq T_e$  for an option on a market index S maturing at  $\tau > t$ . For each day t, the implied volatility reflecting both market and election-related uncertainty can be expressed as:

$$\sigma^E = \sigma^M + \eta, \tag{1}$$

where  $\sigma^M$  represents the implied volatility under regular market conditions, and  $\eta \geq 0$  is the election-induced price jump. While  $\eta$  and the election outcome are unobservable ex-ante, we can still gauge the market's expectations using the implied volatility of options with different maturities traded before the election. Major news events, such as elections, temporarily elevate asset price volatility. After the event passes and the uncertainty is resolved, market volatility subsides, and implied volatility drops. The magnitude of this decline reflects the return variation investors attribute to the event (Patell and Wolfson, 1979; Barth and So,

2014; Dubinsky et al., 2019). Suppose that the options on the index S are identical in strike, liquidity, and other characteristics but are staggered in expiration dates  $\tau=a$ ,  $\tau=b$ , and  $\tau=c$ , where  $a < T_e < b < c$ . Then, the observed difference in implied volatilities between the event-containing expiration ( $\tau=b$ ) and non-event expirations (either  $\tau=a$  or  $\tau=c$ ) can be treated as a proxy for the election-induced price jump.<sup>2</sup>

A challenger victory would lead to a potential shift in government policies, resulting in higher anticipated post-electoral equity volatility (Pástor and Veronesi, 2013). In contrast, if the incumbent is expected to win re-election, policy continuity is anticipated, and the implied volatility of the event-containing expiration should equal that of non-event expirations. Under the assumption that the true  $\eta$  follows a normal distribution with mean  $E[\eta] = \hat{\eta}$  and variance  $\sigma_b^2 + \sigma_{\neq b}^2$ , the probability that  $\eta \leq 0$  can be calculated as follows:

$$P(\eta \le 0) = 1 - \Phi\left(\frac{\hat{\eta}}{\sqrt{\sigma_b^2 + \sigma_{\ne b}^2}}\right),\tag{2}$$

where  $\Phi$  is the standard normal cumulative distribution function (CDF),  $\sigma_b$  denotes the implied volatility of the event-containing expiration ( $\tau = b$ ),  $\sigma_{\neq b}$  is the implied volatility of a non-event expiration ( $\tau = a$ ; or  $\tau = c$ ), and  $\hat{\eta} = \sigma_b - \sigma_{\neq b}$  is the observed jump.<sup>3</sup> To provide a concrete example, suppose that  $\sigma_b = 20\%$  and  $\sigma_{\neq b} = 18\%$ , which yields an observed jump of  $\hat{\eta} = 2\%$ . The probability that the true jump  $\eta$  is less than or equal to zero is 0.4704, indicating that the market anticipates the challenger has a 52.96% chance of victory.<sup>4</sup>

<sup>&</sup>lt;sup>2</sup>This approach draws on established financial theories and practices, particularly those related to how equity volatility responds to pre-scheduled news releases, including: (i) earning announcements; (ii) Federal Open Market Committee (FOMC) meetings; and (iii) monthly employment, CPI, and PPI report dispatches.

<sup>&</sup>lt;sup>3</sup>Implied volatilities quoted as annualized percentages reflect volatility over a standardized one-year horizon. This convention simplifies the calculation of  $E[\eta]$  because it makes time-scaling unnecessary (i.e  $(\sqrt{T}=1)$ ). While the normality assumption simplifies the analysis, actual jumps may exhibit skewness or fat tails, so it may not hold empirically. The independence of  $\sigma_b$  and  $\sigma_{\neq b}$  also simplifies calculations, but if market conditions persist across expirations, one may need to a just the variance to  $\sigma_b^2 + \sigma_{\neq b}^2 - 2\rho\sigma_b\sigma_{\neq b}$ .

<sup>&</sup>lt;sup>4</sup>Under the null hypothesis of policy continuity (incumbent re-election), the expected jump is zero:  $E[\eta] = E[\sigma_b - \sigma_{\neq b}] = 0$ , because both implied volatilities ( $\sigma_b$  and  $\sigma_{\neq b}$ ) reflect the same underlying volatility. Due to the symmetry of the normal distribution, calculating  $P(\eta \leq 0 \mid \hat{\eta})$  under the assumption  $\eta \sim \mathcal{N}(\hat{\eta}, \sigma_b^2 + \sigma_{\neq b}^2)$ 

# 2 Donald J. Trump's Winning Probabilities

The empirical analysis focuses on the closing month of the 2024 US presidential campaign (October 4th-November 5th, 2024). Market expectations are quantified using volatility indexes on the S&P 500 developed by the Chicago Board Options Exchange (CBOE). Based on the well-known VIX approach, these measures gauge the anticipated variability in stock returns across different time horizons (near-term and far-term) and durations (monthly and 9-day periods). These data are then used to construct pairs of event- and non-event expirations, where the former always includes November 6, 2024 (the first trading day after Election Day), while the latter represents comparable time-frames without immediate election exposure. For a full description, please see Table A1 in Appendix A.

Next, I consider daily predictions of Trump's winning chances in my sample period, based on public opinion surveys and prediction markets. The former include poll aggregator RealClear Politics and election forecasts published by The Economist, FiveThirtyEight, and The Silver Bulletin, while the latter comprise probabilities implied by contracts traded in well-known prediction markets, including the Iowa Electronic Markets, PredictIt, Polymarket, and Kalshi, as well as the market-based model, the Virtual Tout. These sources are widely recognized as authoritative and reliable, providing a useful benchmark to evaluate my proposed approach based on financial data. For further information, please see Appendix B.

Table 1 compares predictions of Donald J. Trump's winning chances based on different techniques, focusing on both their final forecasts on the eve of the 2024 US presidential

of the VIX index, please see the CBOE VIX white paper: https://cdn.cboe.com/resources/vix/vixwhite.pdf.

is mathematically identical to calculating  $P(\eta > \hat{\eta} \mid H_0)$  under  $\eta \sim \mathcal{N}(0, \sigma_b^2 + \sigma_{\neq b}^2)$ .

<sup>5</sup>While the VIX index is reported for a 30-day maturity, the formulas used to calculate its value are valid at any horizon, as in the S&P 500 9-Day Volatility Index (VIX9D). For the technical details on the calculation

<sup>&</sup>lt;sup>6</sup>For a comprehensive overview of alternative 2024 U.S. elections forecasting models —including citizen forecasting, electronic markets, machine learning, and poll-based approaches— see Mongrain and Stegmaier (2025). The forecasts presented there, however, are primarily point-in-time predictions rather than time-varying probability estimates. Therefore, they do not provide the daily updates necessary for evaluating dynamic changes in Trump's winning chances throughout the campaign period.

election and summary statistics of their daily estimates. The evidence indicates that, in the final month leading up to the election, some of the forecasts based on public opinion polls underestimated the likelihood of a Trump victory. Three of these – The Economist, FiveThirtyEight, and The Silver Bulletin – also had final predictions below 50% (43.0%, 49.45%, and 49.65%, respectively), implying a Trump loss. While most prediction markets, had both average as well as final forecasts above 50%, they also exhibited significant variance, as evidenced by their standard deviations. The findings also reveal that the option-based approach is more consistent and reliable than the other methods. The final forecast produced by this approach, 57.7%, is remarkably close to the actual outcome of 57.99% (312 electoral votes out of 538). Additionally, the standard deviation of these estimates (2.30) is the lowest among all approaches except for the Iowa Electronic Markets. Most importantly, the option-based approach is the only one that consistently maintained a forecast above 50%, with a minimum value of 50.397%, whereas other approaches had forecasts that fell below 50% at some point during the period under study.

Table 1: Donald J. Trump's Winning Probabilities

Forecast	Last	Average	Std. dev.	Min	Max
Option-Based	57.668	55.381	2.297	50.397	58.995
Survey-Based					
RealClear	60.000	57.445	4.012	49.000	63.900
The Economist	43.000	49.391	3.893	43.000	56.000
FiveThirtyEight	49.450	49.052	2.861	44.300	54.100
Silver Bulletin	49.648	50.551	3.523	43.600	55.423
Prediction Markets					
Iowa Electronic Markets	54.700	49.052	1.835	46.700	54.700
Predictit	54.000	55.217	3.316	49.000	62.000
Polymarket	62.650	59.965	5.212	49.650	66.650
Kalshi	58.570	56.346	4.627	48.740	63.690
Virtual Tout	52.045	56.788	5.509	46.468	64.312

Note: Implied volatilities are only available on trading days. Therefore, for comparability, the daily estimates are based on the 23 trading days, rather than the 33 calendar days, in the Oct. 4-Nov. 5, 2024 period. Using calendar days for the survey-based predictions and the prediction market forecasts yields similar results.

### 3 Discussion

#### 3.1 Election Risk Exposure

The fact that the option-based approach is more consistent and reliable than electoral fore-casts based on public opinion polls should not be too surprising. Having a direct financial stake in the outcome of a prediction, known as "skin in the game," motivates individuals to make more accurate forecasts (Arrow et al., 2008). Experts and survey respondents, while knowledgeable, often make election forecasts without having a direct financial stake in their responses. As a result, their predictions may be unreliable. Prediction markets, on the other hand, provide a strong incentive for accurate forecasting, as participants buy and sell binary options that settle on the basis of whether or not some event occurs (Taleb, 2020).

The actual exposure to election risk, however, is often more complex, as it involves not only the probability of a particular candidate winning or losing, but also the expected market reaction to that outcome. Merton (1973)'s canonical Intertemporal Capital Asset Pricing Model (ICAPM) with a single state variable provides a theoretical basis for understanding this distinction. For any risky asset i, the ICAPM specifies:

$$\mu_i - r = A\sigma_{im} + B\omega_{ik},\tag{3}$$

where  $\mu_i - r$  is the expected excess return on the risky asset i, A is the coefficient of relative risk aversion,  $\sigma_{im}$  is the covariance between asset i and the market portfolio m (market risk), B represents the market's aggregate reaction to shifts in the state variable k (election outcome), and  $\omega_{ik}$  is the covariance between the risky asset i and the state variable k (election risk).

<sup>&</sup>lt;sup>7</sup>For example, Harvard Professor Ryan Enos offered his views on the 2024 U.S. presidential election in the Harvard Data Science Review on October 30, 2024. His "seat of the pants" prediction was a Democratic win. As Enos explicitly stated, he had no financial disclosures related to his predictions (Vittert et al., 2024). The predictions for the presidential race in Mongrain and Stegmaier (2025) are also inconclusive, with the forecasts almost evenly split between Trump and Harris.

Equation (3) clarifies why prediction markets' election forecasts exhibit higher volatility than options-based approaches. Prediction market contracts pay out only if a specific event happens (e.g., Trump wins). This structure makes them similar to concentrated strategies favored by speculative investors. Additionally, their pricing reflects almost pure exposure to election risk, with negligible covariance with the market portfolio. Consider, the stock price of Trump Media & Technology Group (DJT), a company closely associated with the president-elect. As shown in Table 2, in the closing month of the campaign, DJT's stock price exhibited a strong positive correlation with the election odds implied by prediction markets, but showed no meaningful correlation with the movements in the S&P 500 index. Likewise, the iShares Global Clean Energy ETF (ICLN), which tracks the performance of approximately 100 clean energy-related companies also had an excessive exposure to a potential Trump victory. These findings suggest that their lack of diversification and high sensitivity to election-specific news made forecasts based on prediction markets vulnerable to speculative retail bets driven by swings in polling or partisan sentiment, and media narratives.

In contrast to prediction markets' participants, options traders must consider not only who is likely to win but also how that victory will ripple through financial markets. For example, a Trump victory might be expected to boost stocks in the fossil fuel industry, thereby increasing the value of S&P 500 call options even if prediction markets have already priced in his likelihood of winning. Table 2 reveals that during the period between October 4th and November 5th, 2024, the S&P 500 was not only strongly correlated with the CBOE's VIX index, but also exhibited a significant correlation with Trump's winning odds implied by option markets. This evidence indicates that the continuous payoff structure of S&P 500 options, along with their broader hedging benefits, helped neutralize extreme swings from electoral noise, making the option-based forecasts less volatile. In addition, the underlying assets of these options, comprising a diversified portfolio of the largest US companies, closely

<sup>&</sup>lt;sup>8</sup>In this case, the correlation is negative and statistically indistinguishable from zero.

resemble the typical holdings of a long-term retail investor's 401(k) or savings portfolio. This similarity likely contributes to estimates that are more closely aligned with voter sentiment.<sup>9</sup>

Table 2: Correlation Matrix					
	ICLN	S&P 500	VIX	Pred. Market	Option-Based
DJT	-0.829***	0.329	-0.225	0.894***	-0.032
ICLN		-0.281	0.189	-0.884***	0.022
S&P 500			-0.858***	0.444**	0.671***
VIX				-0.381*	-0.449**
Pred. Market					0.073

DJT: Trump Media & Technology Group; ICLN: iShares Global Clean Energy ETF; S&P 500: S&P 500 Index; VIX: CBOE's VIX index. For these four variables the data are their daily closing prices sourced from LSEG Workspace (Refinitiv). Pred. Market: average of daily estimates of Trump's winning chances based on the five prediction markets listed in Table 1 (Iowa Electronic Markets, PredictIt, Polymarket, Kalshi, and Virtual Tout); Option-Based: daily estimates of Trump's winning chances based on option prices. For all of the variables, the data correspond to the 23 trading days from October 4 to November 5, 2024.

#### 3.2 The Trump Trade in 2024

The empirical findings indicate that while assets directly tied to election outcomes may seem intuitively appealing for predicting election probabilities, options on broader market indices can provide a more reliable indicator of election expectations and associated risks. This approach, however, assumes that markets correctly anticipate not only the election outcome but also its effects on asset prices. In practice, this is not always the case. For example, according to Wolfers and Zitzewitz (2018), investors expected the S&P 500 to decline by approximately 11% if Trump were to win the 2016 US presidential election. Consistent with this expectation, overnight futures markets plummeted on early news of a potential Trump victory. But as the reality of a Trump presidency sank in, the market reversed course, with

<sup>&</sup>lt;sup>9</sup>While options markets have long been viewed as more liquid and dominated by sophisticated institutional investors compared to prediction markets, recent evidence challenges these assumptions. Prediction markets like Polymarket have grown tremendously, generating billions in trading volume on election outcomes and attracting hundreds of thousands of active retail participants. Meanwhile, retail investors now account for a substantial share-often 35 to 60 percent-of S&P 500 options trading volume (Han, 2024). Therefore, neither superior liquidity nor trader sophistication provide a valid alternative explanation of why options-based forecasts consistently outperform prediction markets and polls.

the S&P 500 ultimately closing 1.5% higher on the day after the election. 10

In contrast to the 2016 election, there was no reversal of market sentiment regarding a Trump presidency in 2024. Multiple media accounts indicate that, driven by expectations of corporate tax cuts, deregulation, and other business-friendly policies, investors were not only correctly pricing in a Trump victory, but also the potential impact of his policy agenda on the economy (LaMonica, 2024; Langley, 2024; Mackintosh, 2024). Indeed, when the election outcome was revealed, markets reacted accordingly, with the dollar surging to its highest level since July 2024 and US stocks posting their strongest gains in six weeks (Hughes et al., 2024; Langley and Dezember, 2024). This so-called "Trump Trade" was also reflected in the options market. According to the Financial Times, CBOE data from the week before the election indicated that contracts were pricing in a potential swing of plus or minus 2.2% in the S&P 500 the day after the election (Clarfelt and Megaw, 2024).

A quantification of investors' expectations, based on the option-based approach outlined above, yields a very similar estimate with a directional interpretation. Accounting for the option-derived probability of policy change and rearranging equation (1) above, the anticipated electorally-induced change in equity prices  $\tilde{\eta}$  can be expressed as:

$$\tilde{\eta} = \frac{\bar{\sigma}_b - \bar{\sigma}_{\neq b}}{\bar{p}} + \bar{\sigma}_{\neq b},\tag{4}$$

where  $\bar{\sigma}_b$  and  $\bar{\sigma}_{\neq b}$  are the average implied volatilities associated with event and non-event expirations, respectively, and  $\bar{p}$  is the average of the estimated probabilities of policy change derived from option prices defined in equation (2).<sup>11</sup>

<sup>&</sup>lt;sup>10</sup>As Lewis (2023) notes, the case of Jane Street Capital illustrates how even sophisticated market participants with privileged information struggled to correctly anticipate market reactions to the 2016 election outcome. Led by Sam Bankman-Fried, the firm developed a sophisticated system to collect election results faster than news networks, successfully calling states minutes or hours before major media outlets. When their data indicated a Trump victory, Jane Street placed several billion dollars in short positions against the S&P 500. Initially profitable as markets fell overnight, these positions reversed dramatically when U.S. markets rallied the following day, leading to the firm's worst single trade in its history.

<sup>&</sup>lt;sup>11</sup>The expression in equation (4) is well defined for any  $\bar{p} \in (0,1]$ . Under the interpretation that p represents

Using the data in Tables A1 and 1, showing that  $\bar{\sigma}_b = 21.68$ ,  $\bar{\sigma}_{\neq b} = 17.98$ , and  $\bar{p} = 0.554$ , we obtain  $\tilde{\eta} = 24.66$ . Finally, adding the proxy for the baseline volatility  $\bar{\sigma}_{\neq b} = 17.98$  and dividing by the square root of 252, the total expected price change in the S&P 500 associated with a Trump victory in the trading day immediately following the election can be calculated as  $\frac{24.66-17.98}{\sqrt{252}} = 1.13+1.55 = 2.68\%$ . The S&P 500 index posted a 1.2% gain on election day, and then jumped 2.5% in the trading day after Trump's victory. These price movements closely match the expected changes before and after the election, reinforcing the idea that option markets accurately predicted both the 2024 US election outcome, as well as its effects on asset values.

## Conclusions

This study demonstrates that financial markets, particularly options on the S&P 500 index, provided more accurate and stable forecasts of Donald Trump's victory in the 2024 US presidential election compared to traditional prediction markets, expert analyses, and public opinion polls. By analyzing implied volatility and pricing dynamics in equity options, the research highlights how market participants' financial stakes and diversified risk exposure enabled them to correctly anticipate both the electoral outcome and its subsequent impact on asset prices. These findings challenge conventional reliance on prediction markets and polls, offering a compelling case for integrating financial market data into electoral forecasting frameworks.

the probability of policy change, the value of  $\eta$  should be zero whenever p = 0, implying that the numerator in the first term of the right-hand side should also be zero. Therefore, even if p = 0 the expression should be well-defined.

### References

- K. J. Arrow, R. Forsythe, M. Gorham, R. Hahn, R. Hanson, J. O. Ledyard, S. Levmore, R. Litan, P. Milgrom, F. D. Nelson, et al. The Promise of Prediction Markets. *Science*, 320:877–878, 2008.
- M. E. Barth and E. C. So. Non-diversifiable volatility risk and risk premiums at earnings announcements. *The Accounting Review*, 89(5):1579–1607, 2014.
- H. Clarfelt and N. Megaw. Traders Braced for Volatility and Volume as US Election Night Nears. Financial Times, November 3, 2024.
- A. Dubinsky, M. Johannes, A. Kaeck, and N. J. Seeger. Option pricing of earnings announcement risks. *The Review of Financial Studies*, 32(2):646–687, 2019.
- N. Ferguson and M. Rincon-Cruz. How the Trump Whale and Prediction Markets Beat the Pollsters in 2024. *The Wall Street Journal*, November 15, 2024.
- S. Han. Understanding retail investors' trading behavior in the us options market. 2024. URL https://cdn.cboe.com/resources/government\_relations/
  Understanding-Retail-Investors-Dynamic-Trading-Behavior-in-the-US-Options-Market\_
  2024.pdf.
- J. Hughes, W. Schmitt, A. N. Alim, I. Smith, and R. Uddin. US Stocks Hit Record High and Investors Dump Bonds After Donald Trump Clinches Victory. *Financial Times*, November 6, 2024.
- P. R. LaMonica. Worried About Trump Inflation? Buy Bank Stocks and Sell Bonds and Gold. *Barron's*, October 25, 2024.
- K. Langley. Stocks, Treasury Yields Fall Ahead of Tuesday's Vote. Wall Street Journal, November 4, 2024.

- K. Langley and R. Dezember. Stocks Soar, Dollar Jumps as Trump's Win Reverberates Through Markets. Wall Street Journal, November 6, 2024.
- M. Lewis. Going Infinite. W. W. Norton & Company, 2023.
- J. Mackintosh. The 'Trump Trade' Isn't What You Think. Wall Street Journal, November 4, 2024.
- R. C. Merton. An intertemporal capital asset pricing model. *Econometrica*, 41:867–887, 1973.
- P. Mongrain and M. Stegmaier. Introduction to forecasting the 2024 us elections. *PS:*Political Science & Politics, 58:184–191, 2025.
- T. Oldreal. An Interview with Koleman Strumpf, November 9, 2024. URL https://kalshi.com/blog/article/interview-koleman-strumpf-prediction-markets-future.
- L. Pástor and P. Veronesi. Political uncertainty and risk premia. *Journal of financial Economics*, 110(3):520–545, 2013.
- J. M. Patell and M. A. Wolfson. Anticipated Information Releases Reflected in Call Option Prices. Journal of Accounting and Economics, 1(2):117–140, 1979.
- N. N. Taleb. On the Statistical Differences Between Binary Forecasts and Real-World Payoffs.

  International Journal of Forecasting, 36:1228–1240, 2020.
- L. Vittert, R. D. Enos, and S. Ansolabehere. Predicting the 2024 presidential election.

  Harvard Data Science Review, October 30, 2024. URL https://hdsr.mitpress.mit.

  edu/pub/yi347huq/release/6.
- J. Wolfers and E. Zitzewitz. The 'Standard Error' of Event Studies: Lessons from the 2016 election. AEA Papers and Proceedings, 108:584–589, 2018.

# Appendix

# Forecasting the 2024 U.S. Presidential Election

$\mathbf{A}$	Implied Volatility Data	page	1
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# A Implied Volatility Data

Table A1: Implied Volatility of S&P Options with Different Maturities

	Event Non-Event					
Date	Index	Expiration	Imp. Vol.	Index	Expiration	Imp. Vol.
04-Oct-24	VIF	8-Nov-24	20.55	VIN	1-Nov-24	18.5
07-Oct-24	VIF	8-Nov-24	23.08	VIN	1-Nov-24	21.19
08-Oct-24	VIF	8-Nov-24	21.66	VIN	1-Nov-24	19.5
09-Oct-24	VIN	8-Nov-24	20.86	VSTF	25-Oct-24	16.42
10-Oct-24	VIN	8-Nov-24	21.01	VSTF	25-Oct-24	16.45
11-Oct-24	VIN	8-Nov-24	20.54	VSTF	25-Oct-24	15.48
14-Oct-24	VIN	8-Nov-24	19.92	VSTF	25-Oct-24	14.74
15-Oct-24	VIN	8-Nov-24	20.7	VSTF	25-Oct-24	14.9
16-Oct-24	VIN	15-Nov-24	19.57	VSTF	1-Nov-24	14.25
17-Oct-24	VIN	15-Nov-24	19.08	VSTF	1-Nov-24	15.81
18-Oct-24	VIN	15-Nov-24	17.89	VSTF	1-Nov-24	14.18
21-Oct-24	VIN	15-Nov-24	18.17	VSTF	1-Nov-24	14.67
22-Oct-24	VIN	15-Nov-24	17.96	VSTF	1-Nov-24	14.63
23-Oct-24	VSTF	8-Nov-24	18.58	VSTN	1-Nov-24	15.34
24-Oct-24	VSTF	8-Nov-24	19.56	VSTN	1-Nov-24	15.64
25-Oct-24	VSTF	8-Nov-24	20.65	VSTN	1-Nov-24	16.55
28-Oct-24	VSTF	8-Nov-24	21.56	VSTN	1-Nov-24	18.29
29-Oct-24	VSTF	8-Nov-24	21.89	VSTN	1-Nov-24	19.3
30-Oct-24	VSTF	8-Nov-24	23.59	VSTN	1-Nov-24	19.69
31-Oct-24	VSTN	8-Nov-24	26.35	VSTF	15-Nov-24	25.06
01-Nov-24	VSTN	8-Nov-24	23.62	VSTF	15-Nov-24	23.29
04-Nov-24	VSTN	8-Nov-24	29.63	VSTF	15-Nov-24	25.24
05-Nov-24	VSTN	8-Nov-24	32.19	VSTF	15-Nov-24	24.38

The implied volatilities for options with different maturities correspond to four different indexes on the S&P 500 developed by the Chicago Board Options Exchange (CBOE) based on the VIX approach. VIF: Far-Term 30-Day Volatility; VIN: Near-Term 30-Day Volatility; VSTF: Far-Term 9-Day Volatility; VSTN: Near-Term 9-Day. The data can be obtained at: https://www.cboe.com/us/indices/indicessearch/Volatility.

#### **Election Forecasts Data** В

#### Survey-Based Forecasts

- RealClear Politics: Founded in 2000 by John McIntyre and Tom Bevan, RealClearPolitics is a political news website and polling data aggregator. The data can be obtained at:
  - https://www.realclearpolling.com/polls/president/general/2024/trump-vs-harris
- The Economist: Developed with the assistance of a team of political scientists led by Andrew Gelman of Columbia University, The Economist's statistical forecast uses state and national polls, along with political and economic data from past elections to calculate Donald Trump's probabilities of winning each individual state and the 2024 US election overall. The data can be obtained at:
  - https://www.economist.com/interactive/us-2024-election/prediction-model/president/
- FiveThirtyEight: Developed by G. Elliott Morris, the FiveThirtyEight (also rendered as 538) election forecast is based on a combination of polls and campaign "fundamentals," such as economic conditions, state partial and incumbency. On March 5, 2025, the Walt Disney Company shut down 538 and ABC News announced that it would continue to provide polling data and analysis outside of the 538 brand. The data, however, can still be found at:
  - https://web.archive.org/web/20241106001009/https://projects.fivethirtyeight.com/2024election-forecast/
- The Silver Bulletin: Developed by Nate Silver, The Silver Bulletin election forecast is a direct descendant of the FiveThirtyEight model. It uses polling averages that adjust for whether polls are conducted among registered or likely voters and for systematic biases associated with particular pollsters. It also weights more reliable polls more heavily and uses both national and state polls. The data can be obtained at: https://www.natesilver.net/p/nate-silver-2024-president-election-polls-model

#### **Prediction Markets**

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• Iowa Electronic Markets: Operated by the University of Iowa's Tippie College of Business for research and educational purposes, the Iowa Electronic Markets is a real-money prediction market. Unlike traditional futures markets, it caps individual investments at \$500 and focuses on aggregating trader expectations about events like elections or economic indicators. The data correspond to the "2024 U.S. Presidential Vote Share (PRES24 VS)" contract, and can be obtained at:

https://iemweb.biz.uiowa.edu/market/2024-u-s-presidential-election-markets/

PredictIt: Founded in 2014 by Victoria University of Wellington for educational and research purposes, PredictIt is a real-money political prediction market. Individuals can buy and sell shares tied to the outcomes of political events, such as elections, referenda, and legislative actions. The data correspond to the "Who will win the 2024 US presidential election?" contract and can be obtained at: https://www.predictit.org/markets/detail/7456/Who-will-win-the-2024-US-presidential-

• Polymarket: Launched in 2020 and headquartered in New York City, Polymarket is a decentralized, blockchain-based prediction market platform that allows users to speculate on the outcomes of real-world events, including politics, finance, sports, and global affairs. The data correspond to the "Presidential Election Winner 2024" contract and can be obtained at:

https://polymarket.com/event/presidential-election-winner-2024

- Kalshi: Founded in 2018, Kalshi operates as a Designated Contract Market (DCM) under the oversight of the Commodity Futures Trading Commission (CFTC), making it the first legal prediction market of its kind in the United States. The data correspond to the "Who will win the Presidential Election?" contract and can be obtained at: https://kalshi.com/markets/pres/presidential-elections
- The Virtual Tout: Developed by Tom Miller of Northwestern University, The Virtual Tout provides quantitative analysis of prediction markets with a focus on political and economic events. The data can be obtained at:

https://virtualtout.com/