Industry-Specific Market Responses to Polling Data in the 2024 U.S. Presidential Election

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Introduction and Theory

- Eugene Fama's efficient market hypothesis theorizes that capital markets actively adjust to price in new information (Fama, 1969). Under this hypothesis, security pricing should respond to changes in the expected policies of those who regulate the market, such as the U.S. presidential administration.

- The 2024 U.S. presidential election featured a pre-election period particularly worthy of prompting market adjustments. Uncertainty lingered unusually late with Donald Trump facing felony charges and Joe Biden dropping out to endorse Kamala Harris. These precarious circumstances among others may have boosted the influence of polling data as markets parsed public responses. Additionally, each candidates' history in past administrations provides reason to suspect that their potential effect on specific industries could have been priced in with more certainty.

- Treating daily polling results as an indicator of a candidate's probability to win, we employ time series and panel methods to assess the relationship between Donald Trump's dynamic chance at victory and abnormal returns in industries of interest.

Research Questions

1. Was Donald Trump's share in national opinion polls associated with changes in abnormal returns? *(See Model 1)*

2. Did the effect of Donald Trump's poll share on abnormal returns vary across industries? *(See Model 2)*

3. Did key pre-election events that substantially effected Donald Trump's polling share produce sector-varying impacts to abnormal returns? *(See Event Study)*

Methods and Data

- To gauge industry and sector-specific performance, we examine prices of Exchange-Traded Funds (ETFs) from reputable brokers that exclusively or near exclusively hold firms in a single industry. Industries and sectors in this study are largely defined by Global Industry Classification Standard (GICS) codes. Performance is gauged using abnormal returns derived from the capital asset pricing model (CAPM), assuming market return to be equal to the return of the S&P 500 and the risk-free rate to be the return of the 10-year U.S. Treasury bond.

- Polling data was web-scraped from *The Economist*, financial data was sourced from Compustat via Wharton's Research Data Services (WRDS), and macroeconomic controls were collected from the Federal Reserve (FRED).

- *The Economist* data was selected, since in addition to accounting for recency, sample size, past source accuracy, and historical source biases, the aggregations also tempered the polling share of third-party candidates using techniques consistent with political science literature. This feature reduced volatility and suited it as a better representation for a candidate's probability to win.
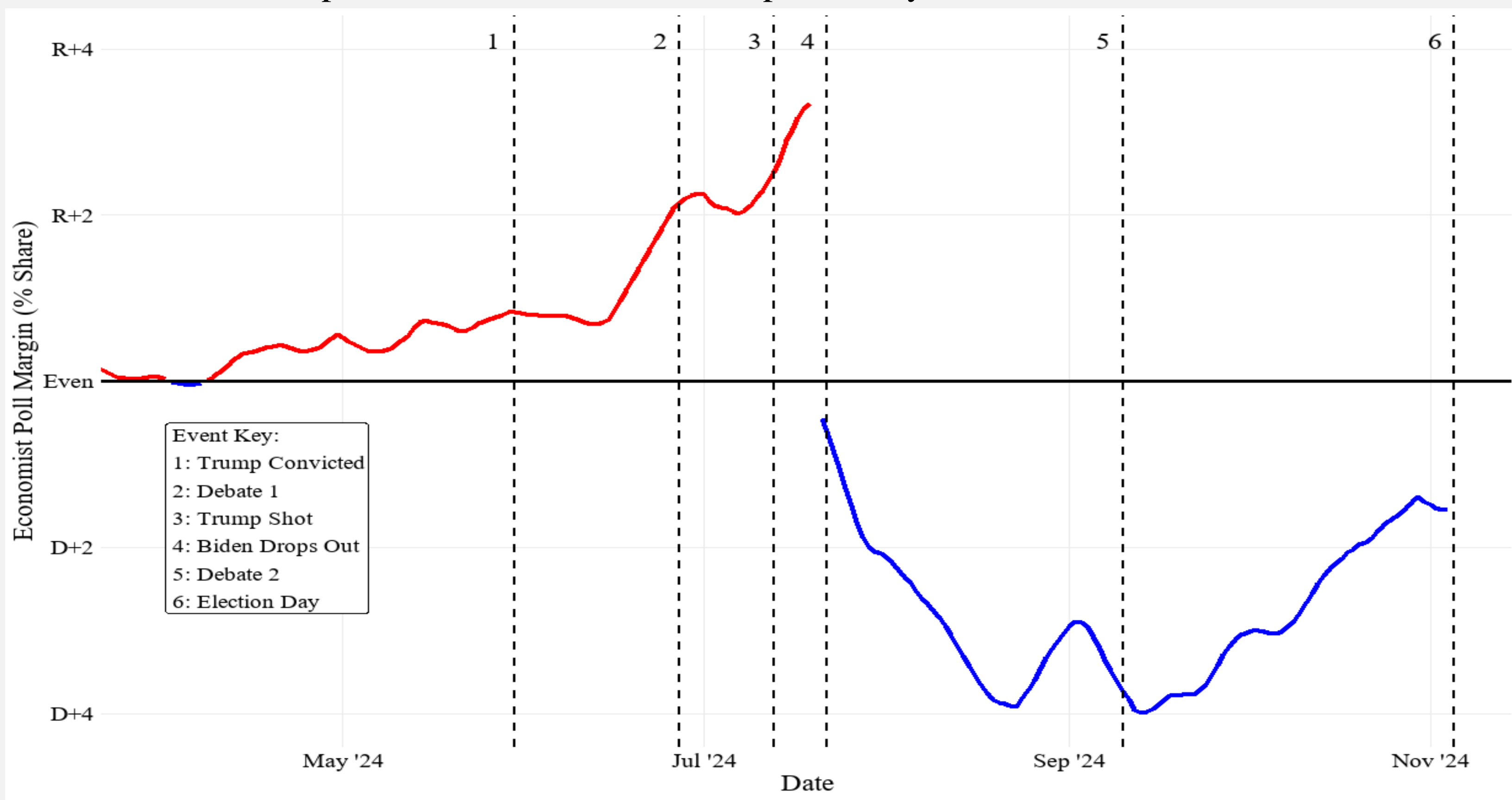
Literature Review

- **Broad Literature**: Extensive literature finds that election day results move markets (Bacon & Gobran, 2017; Bouoiyour & Selmi, 2016). There is a much smaller literature investigating the market influence of public information preceding the election, such as opinion polls and prediction markets. Research in this area has previously focused on tracking portfolios designed for a particular candidate (Bacon & Gobran, 2017; Mattozzi, 2008) or the effects of lead changes (Upadhyaya et al., 2024).

- **Most Similar Studies**: Publications looking at industry or sector-specific responses have investigated the impact of polls on firm profits or raw stock prices (Harold et al., 2021; Herron et al., 1999). These studies have paid disproportionate attention to firms large enough to be listed in major indexes.

- **How We Are Different**: The innovative use of ETFs enables our results to better represent the broader market. Unlike all other studies, using abnormal returns as our response variable removes potential endogeneity introduced by the positive relationship between incumbent party performance and the S&P 500 (Hanke et al., 2022). Finally, we are the first of our knowledge to implement event study methodology to compare sector impacts of pre-election events that moved polls.

Empirical Approach

CAPM Abnormal Return (AR) Calculation: $R_{i,t} - R_{f,t} = \alpha_i + \beta_i(R_{m,t} - R_{f,t}) + \varepsilon_{i,t}$ $\rightarrow$ $AR_{i,t} = R_{i,t} - \hat{\beta}(R_{m,t} - R_{f,t}) + \varepsilon_{i,t}$

Model 1

$AbnormalReturn_{i,t} = \alpha_i + \beta_1 AbnormalReturn_{i,t-1} + \beta_2 \Delta TrumpPoll_t + \beta_3 EFF_t + \beta_4 VIX_t + \beta_5 T5YIFR_t + \varepsilon_{i,t}$

	(1) Abnormal Return
Previous Day Abnormal Return	0.0131 (0.0107)
Daily ΔTrump (%)	0.987*** (0.144)
Effective Federal Funds Rate	0.362*** (0.101)
CBOE Volatility Index (VIX)	0.0191*** (0.00411)
Daily 5yr Expected Inflation Rate	1.313*** (0.233)
Constant	-5.277*** (0.955)
ETF Fixed Effects	✓
Clustered Std. Errors	✓
Observations	8200
ETF's Included	82
R-Squared (Overall)	0.12

Standard errors in parentheses
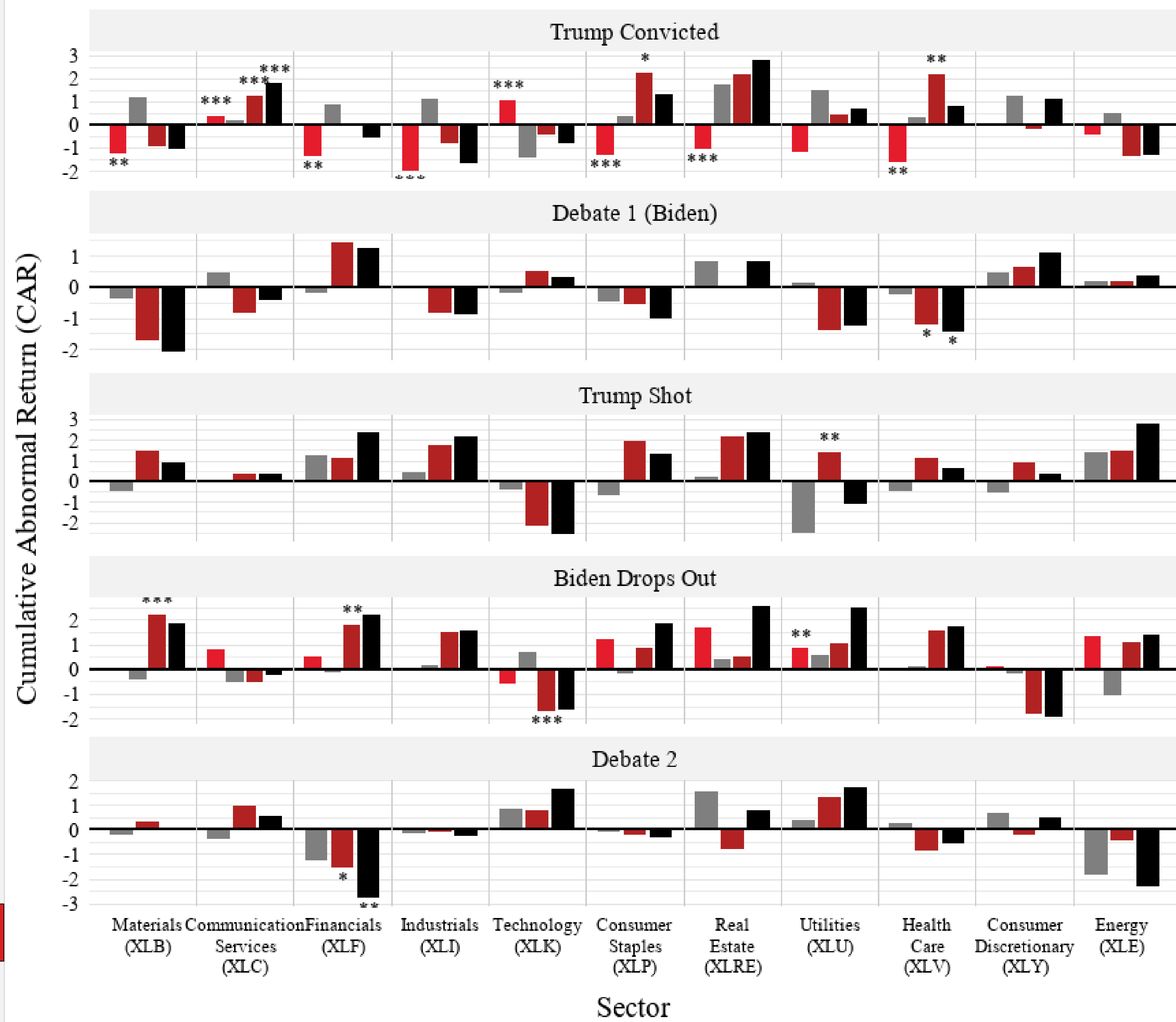* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Model 2

$AbnormalReturn_{i,t} = \alpha_i + \beta_1 AbnormalReturn_{i,t-1} + \beta_2 ClosingPrice_{i,t-1} + \beta_3 \Delta TrumpPoll_t + \Sigma\, \theta_i(\Delta TrumpPoll_t \times IndustryDummy) + \beta_4 EFF_t + \beta_5 VIX_t + \beta_6 T5YIFR_t + \varepsilon_{i,t}$

θ_i Coefficients by Industry

*** $p < 0.01$

Stronger Negative Response to Trump Gains ← θ Coefficients → Stronger Positive Response to Trump Gains

Event Study

* Only shown for events whose effects were considered possible to anticipate

Event Window — Anticipation* | Event | Adjustment | Full Event Period

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Variable Key

$R_{m,t}$: Daily return of the market (S&P 500)
$R_{f,t}$: Risk–free rate (daily return of the 10-Year Treasury)
$R_{i,t}$: Daily return of the asset of interest
$\Delta TrumpPoll$: Daily percent change of Trump's poll share on 1-100 scale
EFF: Effective federal funds rate.
VIX: CBOE Volatility Index
$T5YIFR$: Daily 5-year expected inflation rate of the U.S. Dollar