Appendix

Contents

A1 Event Study Methodology

We employ an event study framework to estimate the effect of the 2024 US presidential election on investor expectations about the future performance of renewable energy firms. The idea behind the design is that it captures market beliefs about the success of green firms following the election of Donald Trump. Since Trump was expected to repeal the IRA, the design explores the consequences for global decarbonization when the United States retreats from a pro-renewable energy policy program.

We utilize daily stock prices as our measure of market beliefs. In the corporate finance literature, unanticipated stock price returns signal changes in beliefs as a reaction to unanticipated actions like the election results, and are related to shareholders' estimation of future firm value (Kothari and Warner, 2008). We estimate abnormal market returns by modeling daily stock prices as a function of the S&P 500 in the six months prior to the election and then use that model to forecast stock prices after the election. The S&P 500 serves as a baseline or benchmark about investors' expectations about market performance. The observed difference between our predicted stock price and the realized price after the election is our estimate of a firm's abnormal return. We then aggregate to the sector-country of exchange level and report average abnormal returns for firms listed on Chinese, German, and American stock exchanges.

Our data comes from Compustat Global and Compustat North America, accessed via Wharton Research Data Services, which provides daily securities prices for all publicly

traded companies. We obtain data for firms in the six months leading up to the election, May 1 2024 to November 5 2024, as well as the post-election period until December 31 2024. We focus on firms that trade on the New York Stock Exchange and the NASDAQ in the United States, the Shanghai and Shenzhen Stock Exchanges in China, and the Frankfurt Stock Exchange in Germany. Moreover, we study firms in the solar (NAICS code 221114), wind (NAICS code 221115), electric vehicles (NAICS code 336320), and battery manufacturing[1] (NAICS code 335910) industries. The value of the S&P 500 comes from the Federal Reserve's economic data (FRED).

Our "estimation window" is the six months prior to the election. Here for each firm i within industry j trading on stock exchange e we regress the stock price on the S&P 500 index for day t,

$$\text{Price}_{iejt} = \beta_0 + \beta_1 \text{S\&P 500}_t + \varepsilon_{iejt}.$$

We then use this model to predict stock prices for firms in the "event window," defined as the day after the election. Firm i's abnormal return

following the US election is equal to the difference between the observed stock price Price_{iejt} and the predicted stock price $\widehat{\text{Price}}_{iejt}$. This abnormal return corresponds to unanticipated shifts in stock prices resulting from the information conveyed by the outcome of the election.

We then aggregate to the exchange-industry level and report average abnormal returns for each industry j listed on exchange e:

$$\text{AAR}_{ej} = \sum_{i}^{n_{ej}} \text{Price}_{iejt} - \widehat{\text{Price}}_{iejt}.$$

Our estimate of the sampling variance for the average abnormal returns following the election is calculated as the mean variance of abnormal returns observed during the

[1]This NAICS classification encompasses all battery manufacturing, which also includes batteries manufactured with brown technologies. We examined all firms within this NAICS code and subsetted only to firms that are involved in some sort of green battery manufacturing (e.g., lithium ion batteries).

estimation window. Note we drop any estimates for which stock price data is available for fewer than two firms within exchange-industry as otherwise we lack degrees of freedom to be able to calculate confidence intervals.

A2 Data Sources & Additional Figures

Figure	Description	Link
Figure 1	Daily stock prices for all publicly traded firms between May 1, 2024 and December 31, 2024 from Compustat Global and Compustat North America via Wharton Research Data Services.	https://wrds-www.wharton.upenn.edu/connect/
Figure 1	Daily prices for the S&P 500 between May 1, 2024 and December 31, 2024 from the Federal Reserve's economic data (FRED).	https://fred.stlouisfed.org/series/SP500
Figure 6	Number of filed patents by country on key green technologies from IRENA.	https://inspire.irena.org/Partners/Create-and-costumise-patent-data-charts
Figures 2 & 3	Imports and exports of green goods at the HS5 level from World Integrated Trade Solution.	https://wits.worldbank.org/
Figures 4 & 5	Production and reserves of critical minerals as a share of global totals from Our World in Data.	https://ourworldindata.org/countries-critical-minerals-needed-energy-transition
Figure 7	Budget commitments for government spending on clean energy investment and affordability between 2020 and 2024 from the IEA.	https://www.iea.org/data-and-statistics/data-tools/government-energy-spending-tracker-policy-database

Table A-1: Data Sources, Descriptions, and Access Links

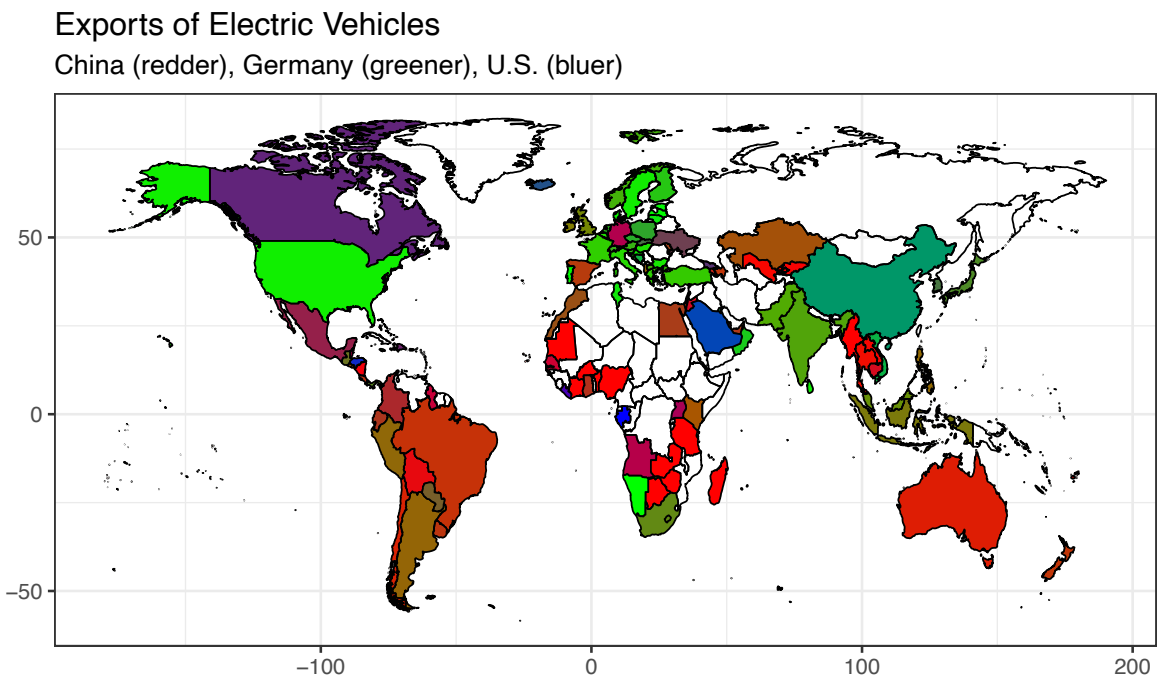

Figure A-1: Exports of Electric Vehicles from China, Germany, and the US, 2023

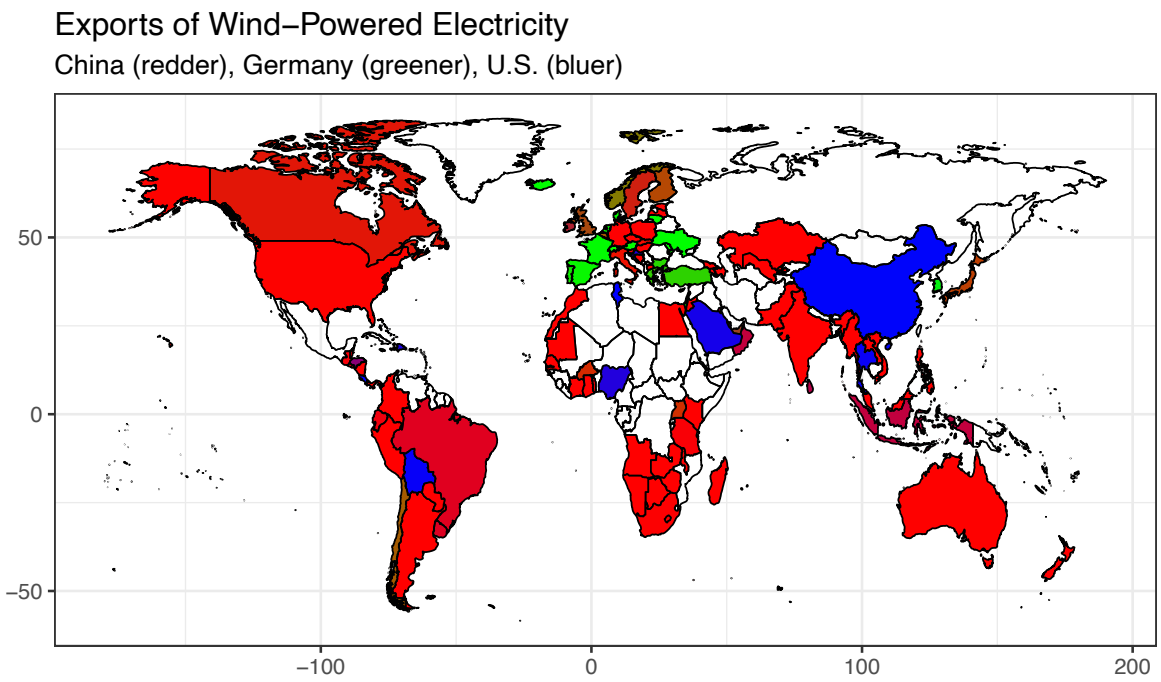

Figure A-2: Exports of Wind-Powered Electricity from China, Germany, and the US, 2023

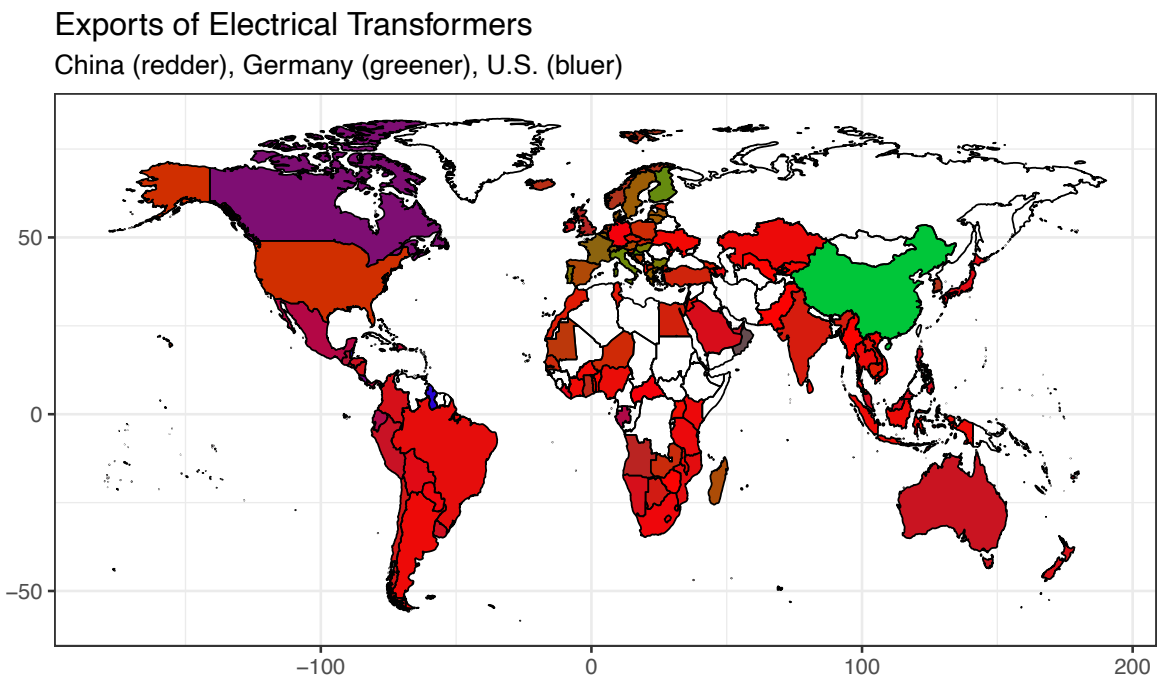

Figure A-3: Exports of Electrical Transformers from China, Germany, and the US, 2023

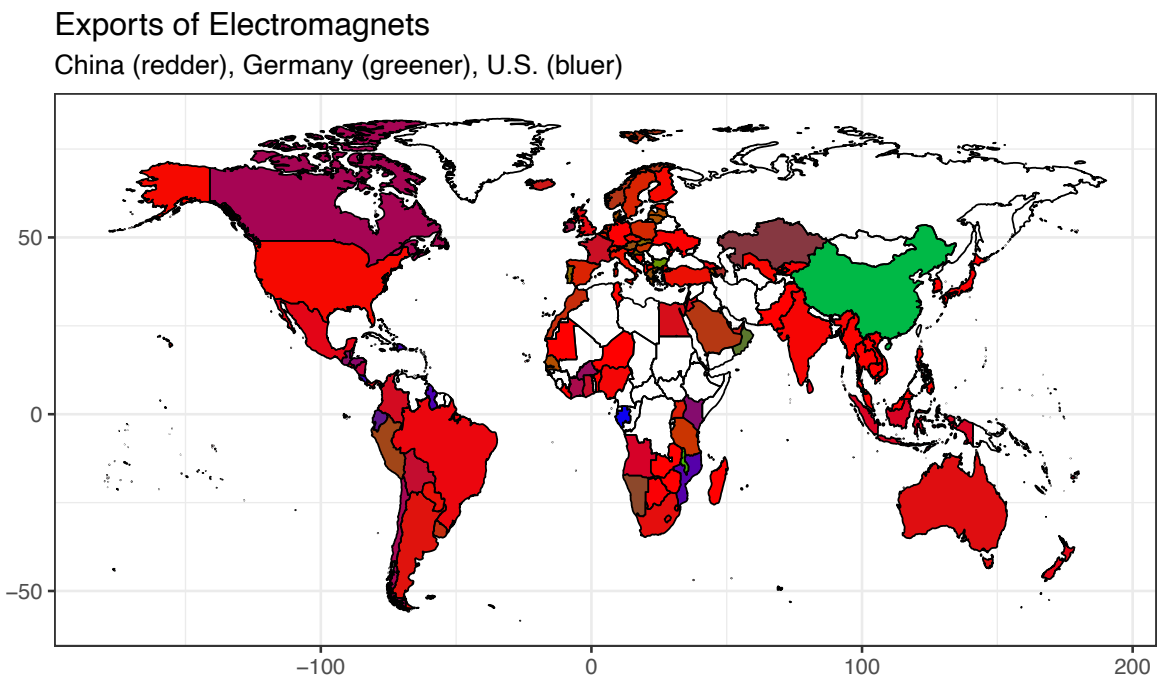

Figure A-4: Exports of Electromagnets from China, Germany, and the US, 2023

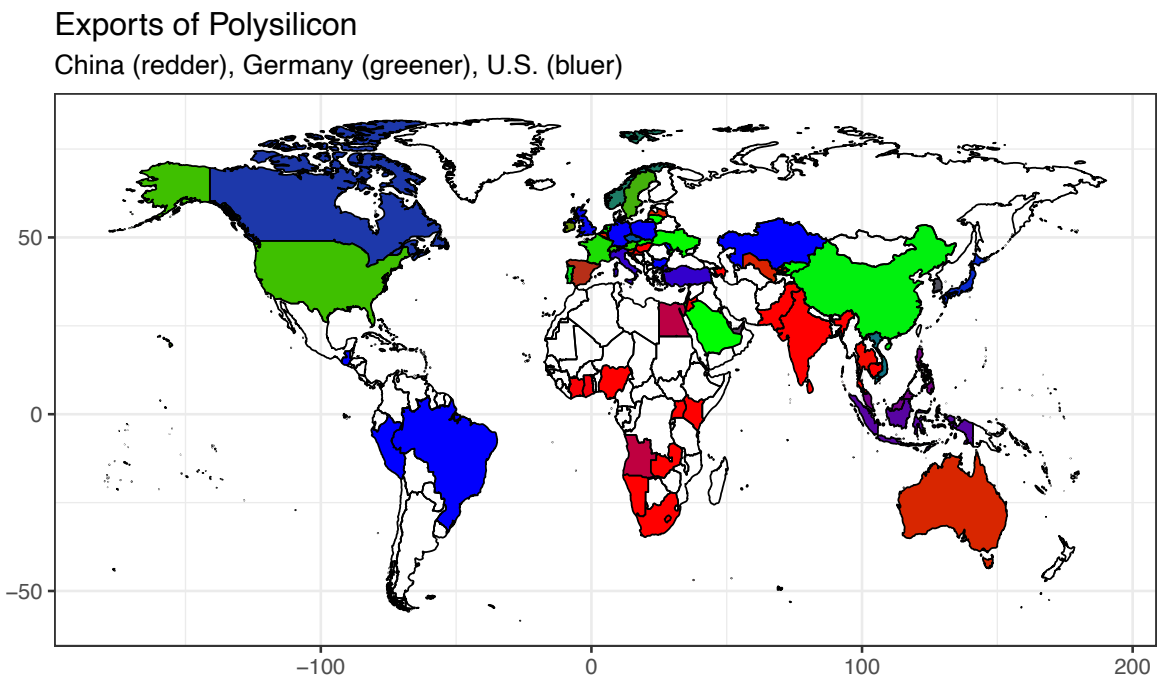

Figure A-5: Exports of Polysilicon from China, Germany, and the US, 2023

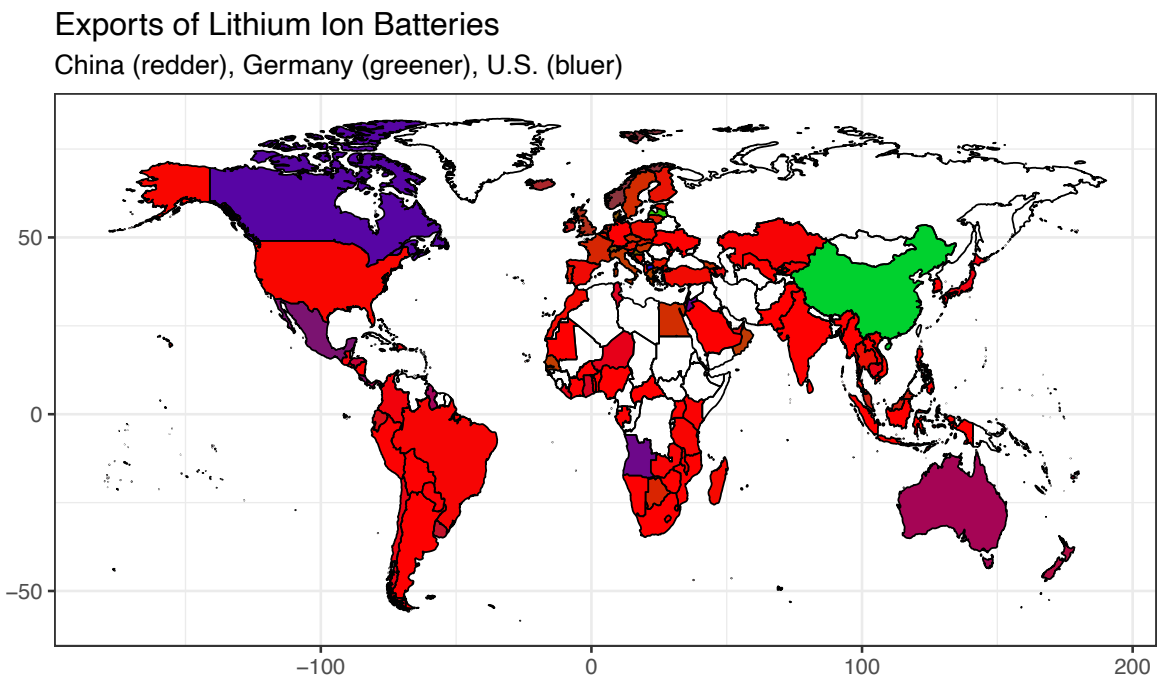

Figure A-6: Exports of Lithium Ion Batteries from China, Germany, and the US, 2023