ONLINE APPENDIX TO "THE VALUE OF NAMES: CIVIL SOCIETY, INFORMATION, AND GOVERNING MULTINATIONALS"

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Appendix A: Technical Appendix

A.1. Test Statistics

For ease of notation (and without loss of generality), in this section we present the test statistics for one particular aggregation period from τ_1 to τ_2, where $T_1 < \tau_1 \leq \tau_2 \leq T_2$.[1]

t-test. Following MacKinlay (1997), the null hypothesis H_0 of no event effect under the assumption of normally distributed security returns and in the absence of clustering can be tested using:

$$\theta_1 = \frac{\overline{CAR}}{\sigma(\overline{CAR})} \sim N(0,1), \tag{A.1}$$

with $\overline{CAR}$ defined in Equation (4) and $\sigma(\overline{CAR})$ defined as:

$$\sigma^2\left(\overline{CAR}\right) = \frac{1}{N^2}\sum_{j=1}^{N}\sigma^2\left(\widehat{CAR}_j\right). \tag{A.2}$$

For ease of exposition, the subscript $j = 1, ..., N$ denotes company–event pairs (ie). We refer to this test simply as the t-test.

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1. This allows us to drop the suffix (τ_1, τ_2).

BMP. Given the estimated abnormal and cumulative abnormal returns and their sample variance in Equations (2) and (A.2), the scaled abnormal (SAR) and cumulative abnormal (SCAR) returns during the event window $\tau = T_1 + 1, ..., T_2$ are defined as follows:[2]

$$SAR_{ie\tau} = \frac{\widehat{AR}_{ie\tau}}{\sigma(\widehat{AR}_{ie\tau})} \tag{A.3}$$

$$SCAR_{ie} = \frac{\widehat{CAR}_{ie}}{\sigma(\widehat{CAR}_{ie})}. \tag{A.4}$$

Boehmer et al. (1991) define the following test-static:

$$t_{BMP} = \frac{\overline{SCAR}\sqrt{N}}{\sigma(SCAR_{ie})}, \tag{A.5}$$

where $\overline{SCAR}$ constitutes the average SCAR on event day τ and $\sigma(SCAR_{ie})$ the cross-sectional standard deviation of the SCAR:[3]

$$\overline{SCAR} = \frac{1}{N}\sum_{j=1}^{N} SCAR_{ie} \tag{A.6}$$

$$\sigma(SCAR_{ie}) = \sqrt{\frac{1}{N-1}\sum_{j=1}^{N}(SCAR_{ie} - \overline{SCAR})^2}. \tag{A.7}$$

The rescaling of the SCARs by the cross-sectional standard deviation makes the BMP t-statistic robust to event-induced volatility.

ADJ-BMP. Kolari and Pynnönen (2010) relax the assumption of no clustering by allowing for covariance between the SARs. Under the assumption of equal variance of SARs, the authors show that the "true" cross-sectional variance of the SARs in this setting can be expressed as follows:

$$s^2(SAR_{ie}) = \frac{\sigma^2(SAR_{ie})}{N}\left(1 + (N-1)\overline{r}\right), \tag{A.8}$$

where $\sigma^2(SAR_{ie})$ is given in Equation (A.7) and $\overline{r}$ is the average of the sample cross-correlations of the abnormal returns during the estimation window. Using the variance formula in Equation (A.8), the adjusted BMP (ADJ-BMP) t-statistic is calculated as follows:

$$t_{ADJ-BMP} = \frac{\overline{SAR}}{s(SAR_{ie})} = \frac{\overline{SAR}\sqrt{N}}{\sigma(SAR_{ie})\sqrt{1+(N-1)\overline{r}}} = t_{BMP}\sqrt{\frac{1-\overline{r}}{1+(N-1)\overline{r}}} \tag{A.9}$$

2. Note that the definition for SARs is equivalent during the estimation window $\tau = T_0 + 1, ..., T_1$.

3. Note that (A.5)-(A.7) are calculated in the same way for the SAR.

The test statistic is equivalent for SCARs under the assumption of the square-root rule of the standard deviation of returns over different return periods (s. Kolari and Pynnönen 2010, p. 4003).

GRANK. Kolari and Pynnönen (2011) re-standardize the SCARs defined in Equation (A.4) using the cross-section standard deviation of the SCARs defined in Equation (A.7) to transform the SCAR to a random variable with zero mean and unit variance as is the case for the other SARs defined in Equation (A.3):[4]

$$SCAR^*_{ie} = \frac{SCAR_{ie}}{\sigma(SCAR_{ie})}. \tag{A.10}$$

This allows Kolari and Pynnönen (2011) to define the generalized standardized abnormal return ($GSAR_{ie\tau}$) as follows:

$$GSAR_{ie\tau} = \begin{cases} SCAR^*_{ie}, & \text{for } \tau = \tau_1, ..., \tau 2 \\ SAR_{ie\tau} & \text{for } \tau = T_0 + 1, ..., T_1. \end{cases} \tag{A.11}$$

Intuitively, the CAR period is treated as if there were only one day, the "cumulative return day" at $\tau = 0$ (Kolari and Pynnönen 2011). The demeaned standardized abnormal ranks ($U_{ie\tau}$) of the GSARs are as follows:

$$U_{ie\tau} = \frac{\text{Rank}(GSAR_{ie\tau})}{T+1} - \frac{1}{2}, \tag{A.12}$$

where $\tau \in \mathcal{T} = \{T_0 + 1, ...T_1, 0\}$ and T is equal to the length of the estimation window plus the "cumulative return day", i.e. $T = L_1 + 1 = T_1 - T_0 + 1$.
Since $U_{ie\tau}$ constitutes the demeaned rank of the GSAR, the null hypothesis of having no mean event effect, i.e. $H_0 : E[\overline{CAR}] = 0$, is equal to the expected rank of the GSAR being equal to zero for all company-event pairs on the "cumulative return day" ($E[U_{ie0}] = 0$). Kolari and Pynnönen (2011) show that the t-statistic for testing this null hypothesis is as follows:

$$t_{GRANK} = Z \left(\frac{T-2}{T-1-Z^2} \right)^{\frac{1}{2}}, \tag{A.13}$$

where

$$Z = \frac{\overline{U}_0}{\sigma(\overline{U})} \tag{A.14}$$

4. In the case of event-day clustering, it may be preferable to use the cross-correlation robust standard deviation $s^2(SCAR_{ie})$. Kolari and Pynnönen (2010) note, however, that this substitution should not substantially alter the results of rank tests (see footnote 7 on p. 4008).

with

$$\sigma(\overline{U}) = \sqrt{\frac{1}{T}\sum_{t\in\mathcal{T}} \frac{N_\tau}{N}\overline{U}_\tau^2} \tag{A.15}$$

$$\overline{U}_\tau = \frac{1}{N_\tau}\sum_{j=1}^{N} U_{ie\tau}, \tag{A.16}$$

where N_τ is the number of non-missing (valid) GSARs available at $\tau \in \mathcal{T} = \{T_0+1, ...T_1, 0\}$ and N is the number of all company-event pairs.

A.2. Synthetic Matching Method

Synthetic Matching Algorithm. Following Acemoglu et al. (2016), we construct a synthetic match for each company i in the treatment group by solving the following optimization problem:

$$\underset{\{w_j^i\}_{j\in\text{Control group}}}{\arg\min} \sum_{t\in\text{Estimation Window}} \left[R_{it} - \sum_{j\in\text{Control group}} w_j^i R_{jt} \right]^2 \tag{A.17}$$

$$\text{s.t.} \quad \sum_{j\in\text{Control group}} w_j^i = 1 \tag{A.18}$$

$$w_j^i \geq 0, \tag{A.19}$$

where R_{it} and R_{jt} are the daily returns on day t for the treatment firm and the companies in the control group, respectively; $\{w_j^{i*}\}$ is the weight for control firm j in the optimal weighting for firm i. In line with our baseline analysis, the estimation window spans 250 trading days ending 30 days prior to the event day, and both treatment and control firms are required to be traded at least 200 out of the 250 trading days (and 8 out of the 11 days in the event window). Additionally, we require that control companies are traded on all non-missing trading days of the treated company to deal with missing values directly instead of relying on the assumption in Acemoglu et al. (2016) that missing values are equivalent to zero returns.

The aforementioned optimization problem can be rewritten as a quadratic programming problem with an quadratic objective function and two linear constraints:

$$\underset{\mathbf{w}\in\mathbb{R}^J}{\arg\min} \quad f(\mathbf{w}) = \frac{1}{2}\mathbf{w}^\intercal\mathbf{D}\mathbf{w} - \mathbf{w}^\intercal\mathbf{b} \tag{A.20}$$

$$\text{s.t.} \quad \mathbf{A}_1\mathbf{w} = 1 \tag{A.21}$$

$$\mathbf{A}_2\mathbf{w} \leq \mathbf{0}, \tag{A.22}$$

where $\mathbf{w} \in \mathbb{R}^J$ is a vector containing the optimal weights for each of the $j = 1, ..., J$ companies; $\mathbf{D} =\in \mathbb{R}^{J\times J}$ is symmetric and equal to $\mathbf{R}^\intercal \times \mathbf{R}$ with matrix $\mathbf{R} \in \mathbb{R}^{T \times J}$ containing the returns in the estimation window of length T for all control companies J; $b \in \mathbb{R}^{J}$ and is equal to $\mathbf{R}^{\intercal} \times \mathbf{r}$ with $\mathbf{r} \in \mathbb{R}^{T}$ comprising the returns of the treated firm over the estimation window; and $A_1 \in \mathbb{R}^{T \times J}$ and $A_2 \in \mathbb{R}^{J \times J}$ are identity matrices and $\mathbf{0} \in \mathbb{R}^{J}$ a vector of zeros.

Reformulating the optimization problem as a quadratic programming problem allows us to use the dual method of Goldfarb and Idnani (1982, 1983) implemented in the **R** function `solve.QP` of the `quadprog` package to obtain the optimal weights $\mathbf{w}^*$.[5]

The abnormal return of treated firm i can then be calculated as the difference between its *actual* return R_{it} and the return of its synthetic match:

$$\widehat{AR}_{it} = R_{it} - \sum_{j \in \text{Control group}} w_j^{i*} R_{jt} \quad . \tag{A.23}$$

Following Acemoglu et al. (2016), we account for the goodness of the synthetic match when calculating the treatment effect across all companies in the treatment group:

$$\widehat{\varphi}\,(0,k) = \frac{\sum\limits_{i \in \text{Treatment group}} \frac{\sum_{t=0}^{\tau_2} \widehat{AR}_{it}}{\widehat{\sigma}_i}}{\sum\limits_{i \in \text{Treatment group}} \frac{1}{\widehat{\sigma}_i}} \tag{A.24}$$

$$\text{where} \quad \widehat{\sigma}_i = \sqrt{\frac{\sum\limits_{t \in \text{Estimation Window}} \left(\widehat{AR}_{it}\right)^2}{T}}, \tag{A.25}$$

where $\widehat{\varphi}\,(0,k)$ is the cumulative effect over the period $\tau_1 = 0$ to τ_2 in the event window. The overall treatment effect is thus a weighted average of each assassination effect on a treated company, with greater weight given to the estimated effects for which the synthetic firm tracks the returns of the treated company more closely during the estimation window. For each event date, we require that there exist at least 10 potential control firms to calculate the weighted average return.

Inference. We implement two inference procedures to obtain uncertainty estimates:

1. Following Acemoglu et al. (2016), we use a *permutation* inference method. To approximate the distribution under the null hypothesis $H_0 : \varphi\,(0,k) = 0$, we draw $P = 5{,}000$ "equivalent" *placebo* treatment groups from the set of control firms and compute the assassination effect for these placebo groups

5. Note that $\mathbf{D}$ has to be (semi-)positive definite. In the rare case that this condition is violated, we apply the algorithm of Higham (1988) to compute the nearest symmetric positive (semi-)definite matrix using the **R** function `make.positive.definite` of the `corpcor` package.

on event days. For instance, assume the *actual* treatment group size is $N_{tr} = 10$, with 6 firms treated on event date e_1 and 4 firms treated on e_2. In this case, we will draw (with replacement) 6 placebo treatment firms from the set of control companies at event date e_1 and 4 placebo placebo treatment firms from the set of control companies at event date e_2. The p-value is the probability of observing effects at least as extreme as our estimated treatment effect $\widehat{\varphi}(0,k)$ under the null. That is, the p-value for $\widehat{\varphi}_k = \widehat{\varphi}(0,k)$ equals the probability that the placebo effects $\widehat{\varphi}_k^p$ are less than $-|\widehat{\varphi}_k|$ plus the probability that they exceed $|\widehat{\varphi}_k|$:

$$\frac{1}{P}\left(\sum_{p=1}^{P} \mathbb{1}\left[\widehat{\varphi}_k^p < -|\widehat{\varphi}_k|\right] + \mathbb{1}\left[\widehat{\varphi}_k^p > |\widehat{\varphi}_k|\right]\right)$$

2. We also implement a *nonparametric bootstrap* clustered at the unit level. Because the sample size — especially the number of treated units — is large ($N_{tr} > 150$), this simple bootstrap procedure should yield valid uncertainty estimates (c.f. Xu 2017; Liu et al. 2024). In each iteration, we resample (with replacement) an equal number of treatment and control units, of size N_{tr} and N_{co} respectively, from the original sample. When a unit is drawn, its entire return series (and, for treated units, its event date) is replicated. We compute standard errors and p-values using the standard deviation method (Efron and Tibshirani 1994).

In both inference procedures, we discard firms for which we do not have a good synthetic match, i.e. firms whose $\widehat{\sigma}$ is greater than $\sqrt{3}$ times the average $\widehat{\sigma}$ for the real treatment group (c. Acemoglu et al. 2016).

Statistical Software. We provide an accompanying open source **R** package `synthReturn` that implements the synthetic matching method.[6]

6. The **R** package can be installed from https://github.com/davidkreitmeir/synthReturn.

Appendix B: Data Appendix

B.1. Assassination Dataset

In this appendix, we detail the compilation and coding of assassination events. The list of 354 extra-judicial killings of mining activists was retrieved from a range of sources that can broadly be categorized into the following categories: Human rights reports, international full-text archives and APIs, local newspaper archives, and published supporting material.

Below, we first describe our sources and the search process, our coding procedure (Section B.1.1), next our process for identifying "associated" firms implicated in events (Section B.1.2), and then our coding of additional geographic information (Section B.1.3). Finally, we show the relationship between our data and the Armed Conflict Location and Event Data Project (ACLED) project (Section B.1.4).

B.1.1. Search and Sources. We implement systematic searches of four types of sources:

1. **Reports from NGOs and human rights associations**. Major sources include leading organizations such as "Amnesty International", "Front Line Defenders", "Global Witness", "Bulatlat.". Many human rights projects of this study form the basis for larger monitoring efforts, such as ACLED.
2. **International news databases, archives, and APIs.** Major databases include Dow Jones' Factiva and Lexis-Nexis. Full-text databases draw from Gale's archives of the International Herald Tribune and Associated Press wire. We also use the Guardian international news API.
3. **Domestic news archives**. We search local newspapers. For example, for Spanish-language sources were used for Latin-American markers, such as "La Republica" in Peru, "El Universo" in Ecuador, "El Pais" in Mexico or "El Espectador" in Colombia. These were queried from RAs in Latin America, and also by PIs in Australia.
4. **Supplemental material from published reports and books.** We rely on published reports (e.g. Holden and Jacobson 2012; Doyle and Whitmore 2014) and studies (e.g. Imai et al. 2017; Spohr 2016; Hamm et al. 2013) for supplementary material and validation. These sources often provide supplementary information on cases such as event classifications: mining, deforestation, and mining project/company associations. For instance, Holden and Jacobson (2012) provided a list of mining projects and their owners at the time in Chapter 2 that can be matched with the mining projects mentioned in association with killings of anti-mining activists in Chapter 5.

We search archives and databases above for articles that contain a combination of "mining" keywords, "activist" keywords (e.g., activist, campaigner, indigenous), and "assassination" keywords (e.g., kill, assassin, abduct). Keyword lists were chosen semi-automatically. We use measures of cosine similarity between seed terms and those identified from the Web2Vec word vectors pre-trained on the Google News data set (c. for instance Keith et al. 2017).[7]

A deduplicated list of returned articles is then manually inspected for relevant events. Given the specificity of the type of events, PIs and RAs then evaluate individual articles by hand to sift out false positives. We note that we also experimented with training text classification models to automatically detect relevant articles. The specificity of our events, however, does not allow for the construction of a sufficient training corpus. Moreover, the data collection process revealed that many assassination events are covered by local newspapers or NGO reports, usually not available in news archives and APIs. Each event is substantiated by at least two sources and often prompts multiple pieces.

Having identified assassination events against members of civil society—opposition leaders, Indigenous and tribal leaders, and local environmentalists, we assess whether the event is linked to the victim's opposition to a mining project. We require at least one source to indicate whether opposition to mining is the (suspected) reason for the attack. We are not able to establish a link to mining opposition for 211 of the 565 killings of activists identified. These 211 cases are either assassinations related to other sectors such as logging, pipelines, and hydro dams, or instances where the source articles failed to disclose definitive evidence of opposition.

B.1.2. Coding "associated" firms. Next, we establish company "ties" for the 354 mining-related events identified. We implement the following matching procedure:

1. **Identify publicly traded firm.** If a mining company is named in at least one event-related article, we check whether the reported company is publicly traded. As a convention, in cases where the named mining company is not the global ultimate owner, we consider only the "downstream" publicly traded companies, except where the global corporate owner is specifically named in reporting. For example, if the article states that the assassination is linked to a mining project owned by AngloGold Ashanti, a publicly traded mining company ultimately owned by Anglo American, we do not classify Anglo American as being "associated" with the event unless a source article also specifically mentions Anglo American.
2. **Validate firm operation.** For each firm, we cross-validate whether the company was active in the country at the time of the event. Given the scope of the dataset, we do this manually. We search for and validate this

7. The Google News data set comprises about 100 billion words. The pre-trained Web2Vec word vectors can be found here: https://code.google.com/archive/p/word2vec/.

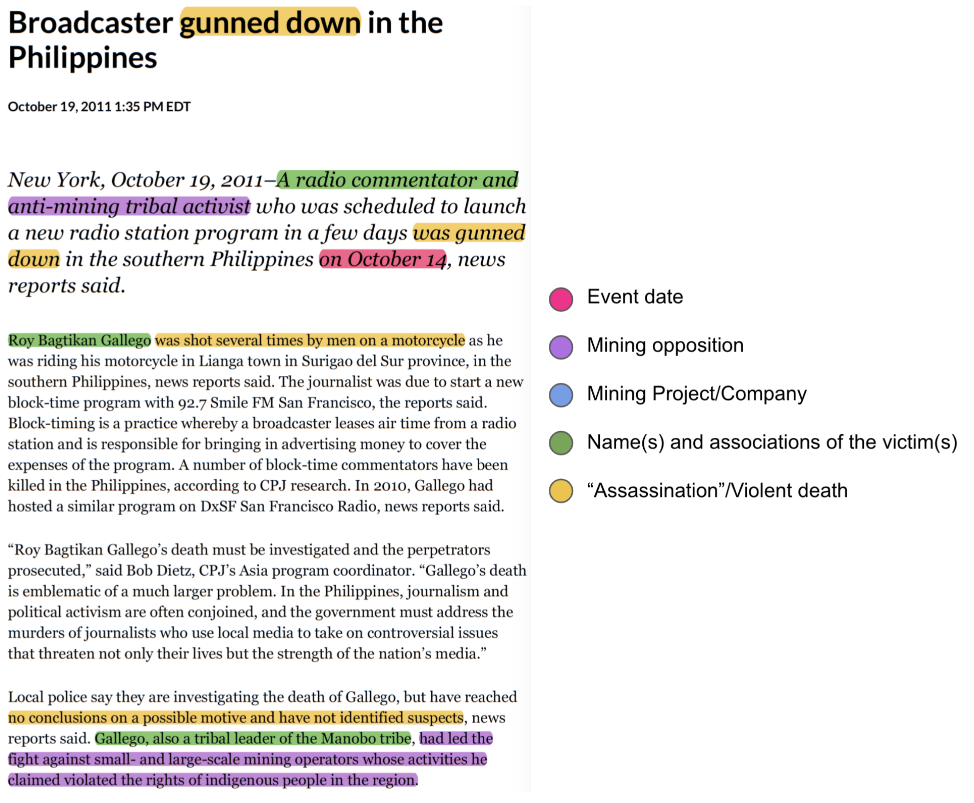
information using annual reports and the SNL Metals & Minings database. When the named company is privately owned, we record the company name and do not further discern the structure of ownership by private individuals.

3. **Identify joint ventures and subsidiaries.** If a named mining company is not publicly traded, we examine if the company constitutes a subsidiary or joint venture of a publicly traded company at the time of the event by manually consulting corporate finance resources. Our primary sources for historical ownership links are Bureau Van Dijk's Orbis database and the SNL Metals & Mining database. We cross-validate and, where necessary, supplement this information with data from company websites, annual reports, SEC filings, and business registers. In rare cases, the articles only name the specific project are named in articles (e.g., The Acme Mining Project) without reference to the project's owner. For these cases, we also rely on the aforementioned sources to establish the ownership structure of the mining project at the time of the event. In both cases, all owners are matched to the respective event. If a private company is the (partial) owner of a subsidiary and/or joint venture, the name of the company is recorded, not the name of the private owners of the company.

B.1.3. Coding additional event information. Apart from the company information, we manually code the following information: *(i)* the precise event date, *(ii)* the name and number of the victims, *(iii)* the geolocation of the assassination event, *(iv)* the event "circumstances" (e.g., whether an assassination attempt was successful, or if it happened during a protest), and *(v)* if known, the perpetrator (e.g., police, paramilitary forces, private security guards, hitmen). For most assassination events, we are able to establish the exact assassination location. If the location is not known precisely, but only at the municipality level, we use the (approximate) centroid of the municipality where the event occurred.

B.1.4. Coverage of Assassination Dataset. The unique scope and coverage of our data set are highlighted by Figure B.2, which juxtaposes the coverage period of event countries in our study (1998-2019) to a high-quality benchmark dataset, the ACLED project. The ACLED data is "the highest-quality and most widely used near real-time source on political violence and protest data worldwide."[8] The dark cells in Figure B.2 show that ACLED covers only a fraction of the study period for our event countries: only 41 of the 175 assassinations associated with publicly traded companies in our dataset fall

8. Source: www.acleddata.com/data/, 27 May 2024.



Broadcaster gunned down in the Philippines

October 19, 2011 1:35 PM EDT

New York, October 19, 2011–A radio commentator and anti-mining tribal activist who was scheduled to launch a new radio station program in a few days was gunned down in the southern Philippines on October 14, news reports said.

Roy Bagtikan Gallego was shot several times by men on a motorcycle as he was riding his motorcycle in Lianga town in Surigao del Sur province, in the southern Philippines, news reports said. The journalist was due to start a new block-time program with 92.7 Smile FM San Francisco, the reports said. Block-timing is a practice whereby a broadcaster leases air time from a radio station and is responsible for bringing in advertising money to cover the expenses of the program. A number of block-time commentators have been killed in the Philippines, according to CPJ research. In 2010, Gallego had hosted a similar program on DxSF San Francisco Radio, news reports said.

"Roy Bagtikan Gallego's death must be investigated and the perpetrators prosecuted," said Bob Dietz, CPJ's Asia program coordinator. "Gallego's death is emblematic of a much larger problem. In the Philippines, journalism and political activism are often conjoined, and the government must address the murders of journalists who use local media to take on controversial issues that threaten not only their lives but the strength of the nation's media."

Local police say they are investigating the death of Gallego, but have reached no conclusions on a possible motive and have not identified suspects, news reports said. Gallego, also a tribal leader of the Manobo tribe, had led the fight against small- and large-scale mining operators whose activities he claimed violated the rights of indigenous people in the region.

FIGURE B.1. Example case for assassination related to mining opposition but without company association. The source of the article is: https://cpj.org/2011/10/broadcaster-gunned-down-in-philippines/ (Last accessed: *24 May 2025*).

into the period covered by ACLED. Moreover, we find that, at most, 29 of the 41 events are actually featured in ACLED.[9]

Although the scope of ACLED's conflict coverage includes assassination events, the temporal coverage is limited for some key regions in our data, such as South America and Southeast Asia: coverage starts in 2018 for Peru and 2016 for the Philippines. Importantly, for countries where ACLED has the most extensive coverage, such as Africa, our assassination data overlap nicely with ACLED's coverage (Ghana, Mozambique, Sierra Leone, South Africa, and Tanzania). The overlap may make sense, as many partner organizations working with ACLED, such as Frontline Defenders, are employed as sources of human rights reporting in our data collection effort.

9. In detail, we are able to identify 23 events with certainty in ACLED, with 6 events as strong potential matches.

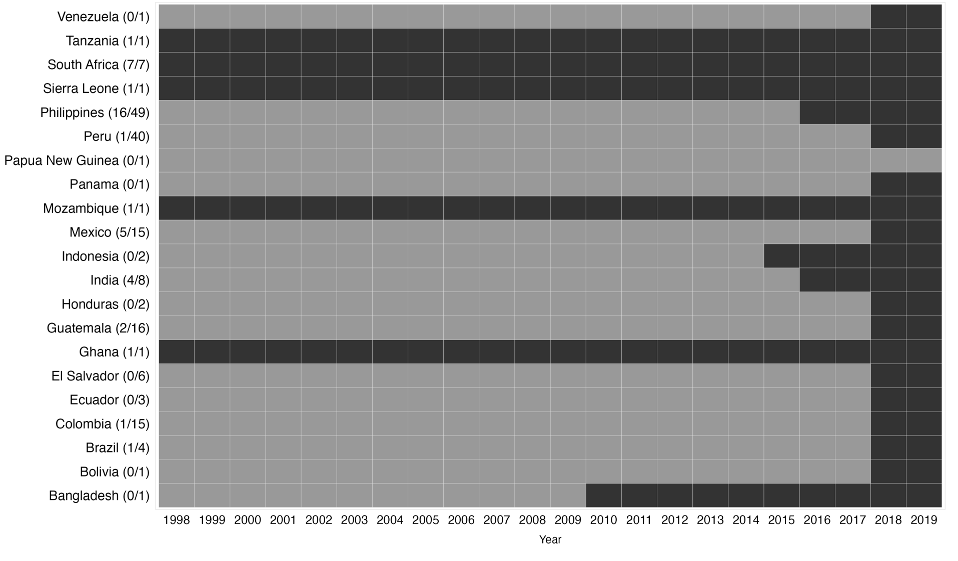


FIGURE B.2. ACLED event-country-specific data coverage periods. The number of assassinations associated with publicly traded companies in a country that falls into the ACLED coverage period relative to the total number of assassinations is presented in parentheses after each event-country name. Country-specific coverage-period information for ACLED was obtained from the official documentation at https://acleddata.com/knowledge-base/country-time-period-coverage/ (Last accessed: *26 May 2024*).

B.2. Construction of OLS Control Group

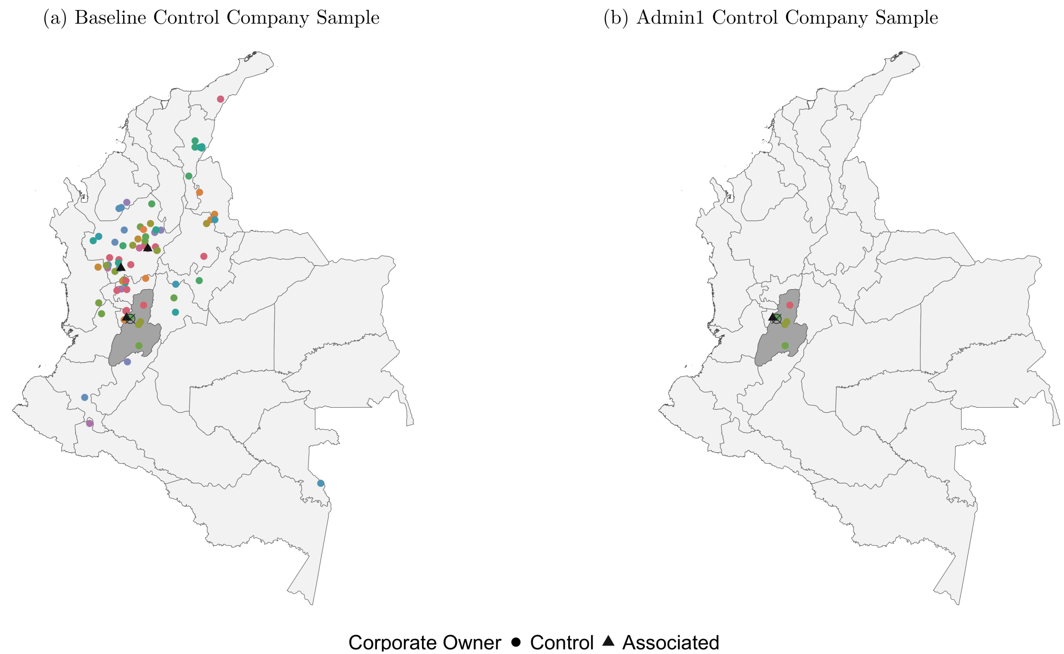


Figure B.3. Example Case from Colombia. The map displays the first administrative-level regions (Admin1) of mainland Colombia. The dark gray area corresponds to the Admin1 region in which the assassination event took place, while the location itself is marked by the black circled cross. Triangles (dots) correspond to mining projects owned by companies linked to the assassination event (or not), with the corporate owner(s) differentiated by colour. Panel A displays all mining projects in the SNL database with ownership information in the event year (here: 2013). Panel B restricts the mining projects to the ones present in the Admin1 region of the assassination location.

B.3. ESG Scores Dyck et al. (2019)

We follow Dyck et al. (2019) to create "equally weighted" indicator variables based on the ASSET4 ESG environmental and social indicator values. In particular, for questions with a positive direction (i.e., a "yes" answer or a higher number is associated with better social performance), we translate the answers to Y/N questions into 0 (N) and 1 (Y); the answers to double Y/N questions into 0 (NN), 0.5 (YN or NY), and 1 (YY); and the answers to numerical questions into 0 (value is less or equal than zero; or value is less than or equal to the median).[10]. For questions with a negative direction (i.e., a "no" answer or a lower number is associated with better social performance), the opposite coding applies.[11]

Table B.1. Social Indicator Variables

		Description	Direction	Question Type
A.	Community Category			
1)	Bribery, Corruption, Fraud Controversies (so_so_co_o10_v)	Is the company in the media spotlight because of a controversy linked to bribery and corruption, political contributions, improper lobbying, money laundering, parallel imports, or any tax fraud?	Negative	Y/N
2)	Business Ethics Compliance (so_so_co_o11_v)	All real or estimated penalties, fines from lost court cases, settlements or cases not yet settled regarding controversies linked to business ethics in general, political contributions or bribery and corruption, price-fixing or anti-competitive behavior, tax fraud, parallel imports or money laundering in U.S. dollars.	Negative	Number

10. Numeric variables that are recoded are "Business Ethics Compliance" (≤ 0), "Effective Tax Rate" ($\leq$ Median), and "Patent Infringement" (≤ 0)

11. Note that, in contrast to Dyck et al. (2019), we do not consider the indicator "Total Donations" (so_so_co_o01_v) due to almost exclusively missing values and rely on the "Effective Tax Rate" indicator instead of "Income Taxes", since the latter was not available in our version of the Asset4 database (data last retrieved on 26 September 2021).

Table B.1. Social Indicator Variables *(Continued)*

		Description	Direction	Question Type
3)	Corporate Responsibility Awards (so_so_co_dp074)	Has the company received an award for its social, ethical, community, or environmental activities or performance?	Positive	Y/N
4)	Crisis Management (so_so_co_o08_v)	Does the company report on crisis management systems or reputation disaster recovery plans to reduce or minimize the effects of reputational disasters?	Positive	Y/N
5)	Critical Countries, Indigenous People Controversies (so_so_co_o06_v)	Is the company in the media spotlight because of a controversy linked to activities in critical, undemocratic countries that do not respect fundamental human rights or to disrespecting the rights of Indigenous people?	Negative	Y/N
6)	Donations in General (so_so_co_o02_v)	Does the company make cash donations? AND Does the company make in-kind donations, foster employee engagement in voluntary work, or fund community-related projects through a corporate foundation?	Positive	Double Y/N
7)	Implementation (so_so_co_d02_v)	Does the company describe the implementation of its community policy through a public commitment from a senior management or board member? AND Does the company describe the implementation of its community policy through the processes in place?	Positive	Double Y/N
8)	Improvements (so_so_co_d04_v)	Does the company set specific objectives to be achieved regarding its reputation or its relations with communities?	Positive	Double Y/N

Table B.1. Social Indicator Variables *(Continued)*

		Description	Direction	Question Type
9)	Effective Tax Rate (`so_so_co_o03_v`)	The effective tax rate is defined as income taxes (credit) divided by income before taxes and expressed as a percentage. If there is an income tax credit, the result is a not meaningful (NM)	Positive	Number
10)	Monitoring (`so_so_co_d03_v`)	Does the company monitor its reputation or its relations with communities?	Positive	Y/N
11)	Patent Infringement (`so_so_co_o07_v`)	All real or estimated penalties, fines from lost court cases, settlements or cases not yet settled regarding controversies linked to patents and intellectual property infringement in U.S. dollars.	Negative	Number
12)	Policy (`so_so_co_d01_v`)	Does the company have a policy to strive to be a good corporate citizen or endorse the Global Sullivan Principles? AND Does the company have a policy to respect business ethics, or has it signed the UN Global Compact, or does it follow the OECD guidelines?	Positive	Double Y/N
13)	Public Health Controversies (`so_so_co_o09_v`)	Is the company in the media spotlight because of a controversy linked to public health or industrial accidents harming the health & safety of third parties (non-employees and non-customers)?	Positive	Y/N
B.	Human Rights			
1)	Child Labor Controversies (`so_so_hr_o03_v`)	Is the company in the direct or indirect (through suppliers) media spotlight because of a controversy linked to child labor?	Negative	Y/N

Table B.1. Social Indicator Variables *(Continued)*

		Description	Direction	Question Type
2)	Freedom of Association Controversies (`so_so_hr_o02_v`)	Is the company in the direct or indirect (through suppliers) media spotlight because of a controversy linked to freedom of association?	Negative	Y/N
3)	Human Rights Controversies (`so_so_hr_o04_v`)	Is the company in the direct or indirect (through suppliers) media spotlight because of a controversy linked to general human rights issues?	Negative	Y/N
4)	Implementation (`so_so_hr_d02_v`)	Does the company describe the implementation of its human rights policy?	Positive	Y/N
5)	Improvements (`so_so_hr_d04_v`)	Does the company set specific objectives to be achieved in its human rights policy?	Positive	Y/N
6)	Monitoring (`so_so_hr_dp021`)	Does the company monitor human rights in its or its suppliers' facilities?	Positive	Y/N
7)	Policy (`so_so_hr_d01_v`)	Does the company have a policy to guarantee the freedom of association universally and independent of local laws? AND Does the company have a policy for the exclusion of child, forced, or compulsory labor?	Positive	Double Y/N
8)	Suppliers Social Impact (`so_so_hr_dp026` AND `so_so_hr_dp029`)	Does the company report or is it shown to use human rights criteria in the process of selecting or monitoring its suppliers or sourcing partners? AND Does the company report, or is it shown to be ready to end a partnership with a sourcing partner if human rights criteria are not met?	Positive	Double Y/N

B.4. Protest Data

MM. The Mass Mobilization Data Project (MM) (Clark, David and Regan, Patrick 2016) provides information on the start and end dates of protests and protesters' demands. We filter out, to the best of our abilities, protests that may be connected to the assassination event in our database by restricting the set of protests to those that are motivated by at least one of the following four issue categories:

- **Police brutality or arbitrary actions**: The beating or jailing of people for seemingly arbitrary reasons, the brutality by police or other authority figures against a group or individual
- **Political behavior/process**: Aspects of the political process that determines who rules and how, who can participate in elections or decisions, choices made by leaders that influence a range of political outcomes from domestic subsidies to foreign policy
- **Removal of corrupt or reviled political person**: Official corruption or the corruption of a particular individual
- **Land tenure or farm issues**: Access to or restrictions imposed on the use of land (e.g. expropriation of land for a dam project)

Since location information in MM is only available in an unstructured string format, with entries varying between city, district, and state, among others, we use the GeoNames API combined with manual matching to assign each protest to the ADMIN1 (ADM1) polygons used in our study. Protests which cannot be assigned to an ADMIN1 region are dropped from the analysis.

GDELT. Using the CAMEO code classification of events in the Global Database of Events, Language, and Tone (GDELT) (Schrodt et al. 2009), we consider the following event codes matching the socio-environmental conflicts surrounding mining projects:

- **14**: Protests
- **1121**: Accuse of crime, corruption
- **1122**: Accuse of human rights abuses
- **113**: Rally opposition against
- **181**: Abduct, hijack, or take hostage
- **1822**: Torture
- **1823**: Kill by physical assault
- **185**: Attempt to assassinate
- **186**: Assassinate

We further filter the relevant protests by restricting the set of *primary* generic domestic role codes to

- **COP**: Police forces, officers, criminal investigative units, protective agencies
- **OPP**: Political opposition: opposition parties, individuals, anti-government activists
- **GOV**: Government: the executive, governing parties, coalitions partners, executive divisions
- **JUD**: Judiciary: judges, courts
- **MIL**: Military: troops, soldiers, all state-military personnel/equipment

and the *secondary* generic domestic role codes to

- **AGR**—Agriculture: individuals and groups involved in the practices of crop cultivation, including government agencies whose primary concern is agricultural issues
- **CVL**—Civilian individuals or groups sometimes used as catch-all for individuals or groups for whom no other role category is appropriate
- **ENV**—Environmental: entities for whom environmental and ecological issues are their primary focus, includes wildlife preservation, climate change, etc
- **HRI**—Human Rights: actors for whom their primary area of operation or expertise is with documenting and/or correcting human rights concerns
- **CRM**—Criminal: corresponding to individuals involved in or allegedly involved in the deliberate breaking of state or international laws primarily for profit
- **DEV**—Development: individuals or groups concerned primarily with development issues of varying types, including infrastructure creation and democratization.

Additionally, we require that the geographic location of an event is known at least at the ADMIN1 level.

Appendix C: Additional Results

C.1. Descriptive Statistics

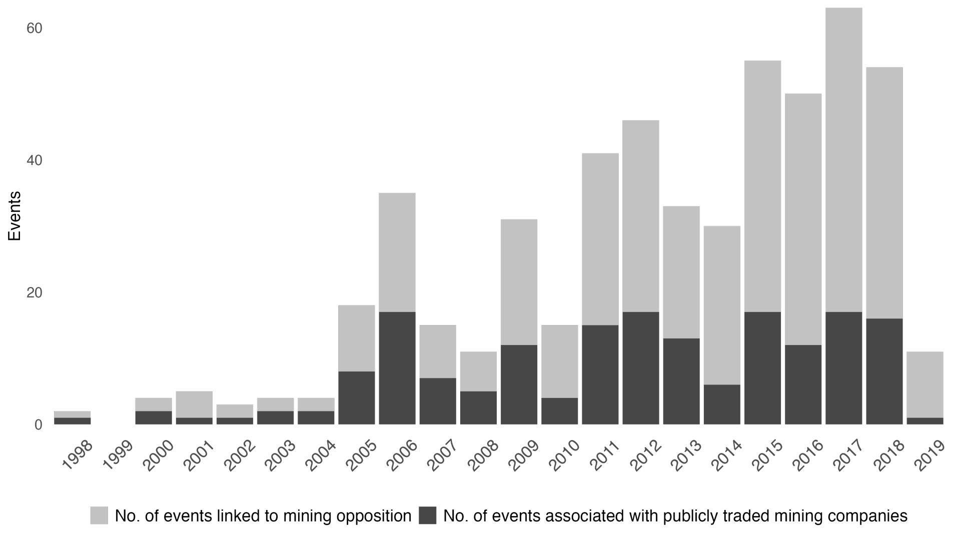
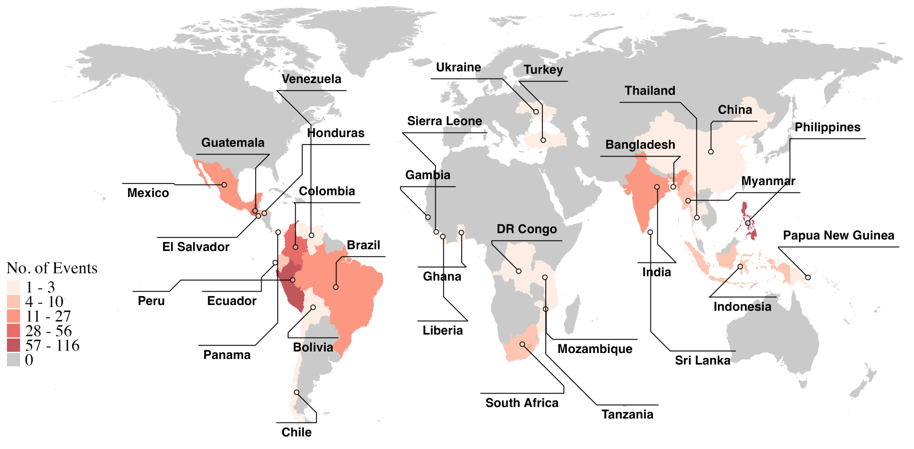


FIGURE C.1. Distribution of Assassination Events over Time.

(a) Number of Events by Country



(a) Number of Victims by Country

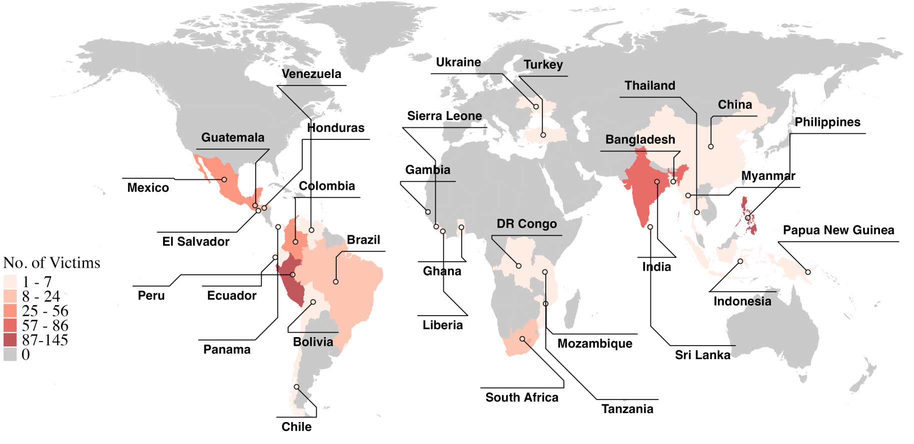


FIGURE C.2. The Spatial Distribution of Assassinations (1998-2019)

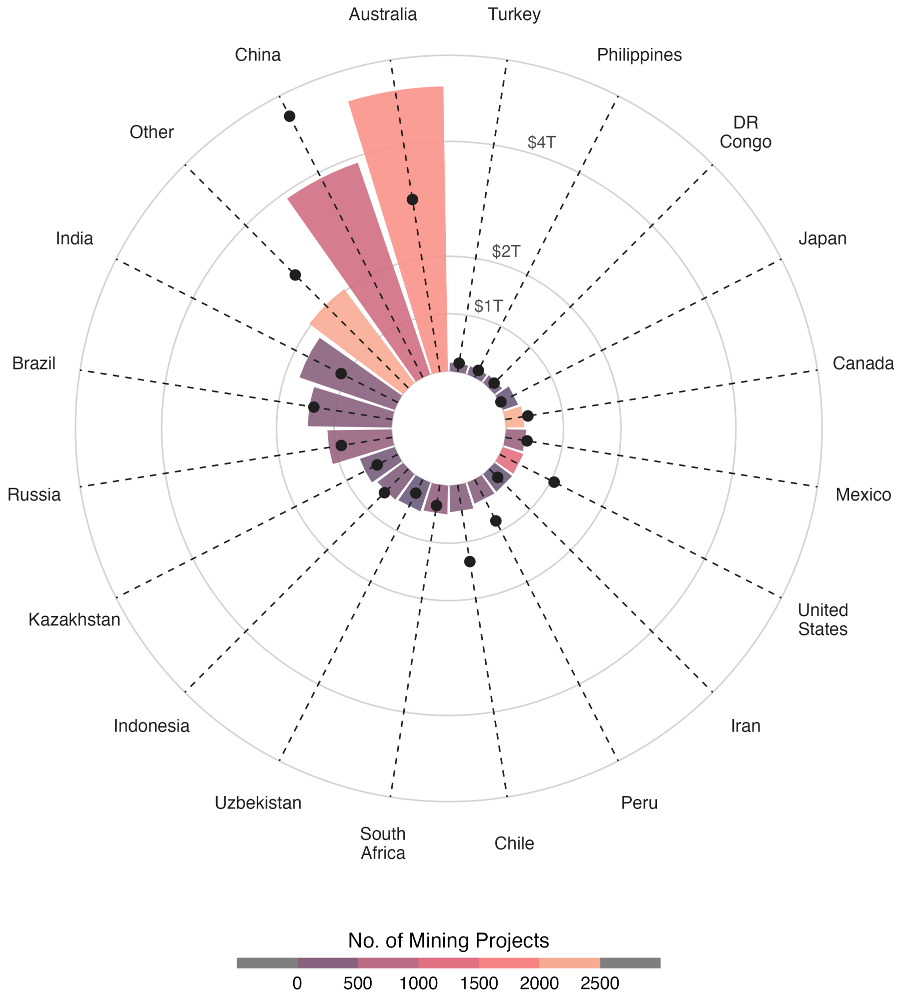


Figure C.3. Mineral Rents across Countries. Bars present mineral rents (in trillion USD) for particular countries in 2019 in which corporations are headquartered. Black dots depict the average mineral rent (in constant 2015 USD) for a country over the 1998-2019 period. The color scale indicates the number of active mining projects as of the end of 2018 in the SNL Metals and Mining database.

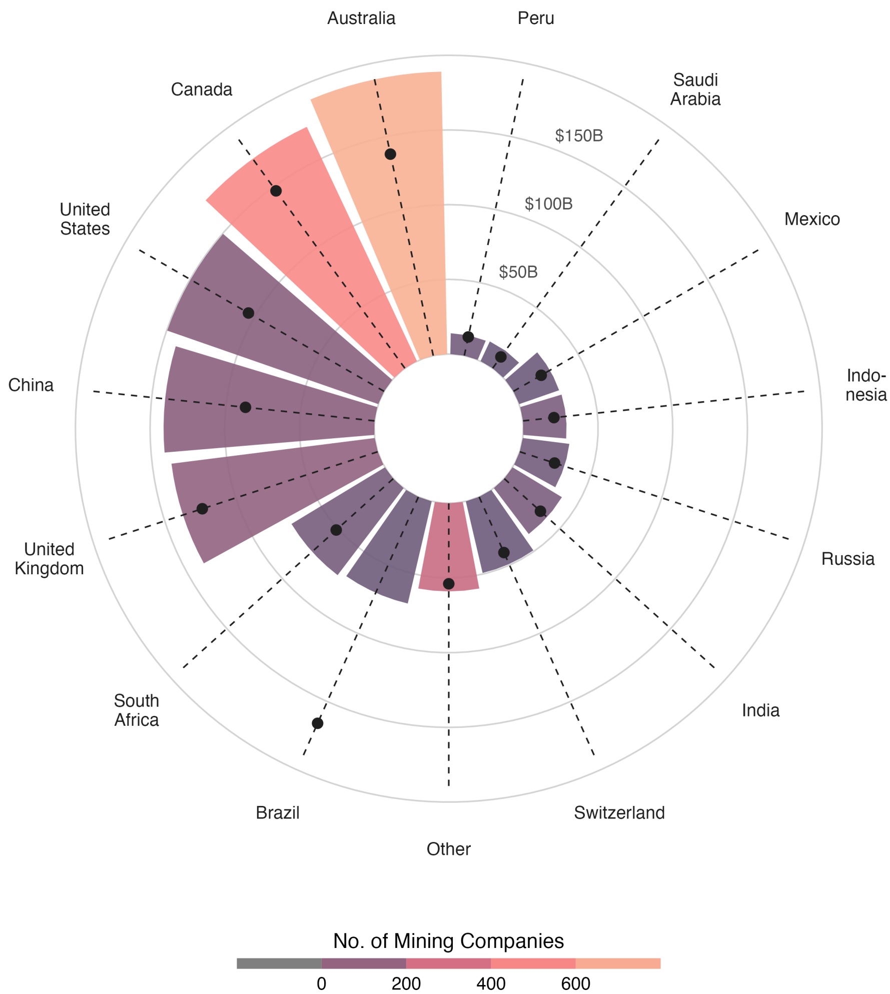


Figure C.4. Market Value of Mining Corporations Across Countries. Bars present the total market value in 2019 of mining corporations (in billion USD) headquartered in a particular country. Black dots depict the average market value of mining corporations over the 1998-2019 period. The color scale indicates the number of publicly traded mining countries headquartered in a country in 2019.

Table C.1. Summary Statistics by Event Country

		R (%)			$\widehat{AR}$ (%)			Log(Size)			Leverage (%)		
Event Country:		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Bangladesh	Treatment	1	-0.09		1	0.00		1	10.3		1	0.0	
	Control	0			0			0			0		
Brazil	Treatment	4	0.08	0.27	4	0.00	0.00	4	17.2	0.76	4	19.3	15.6
	Control	198	0.08	0.33	198	0.00	0.00	192	13.6	3.34	181	18.2	17.4
Colombia	Treatment	14	0.02	0.28	14	0.00	0.00	14	15.6	2.69	14	25.0	12.0
	Control	234	0.05	0.38	234	0.00	0.00	226	12.8	3.92	217	12.2	13.4
Ecuador	Treatment	5	0.06	0.12	5	0.00	0.00	5	15.9	2.50	5	32.5	23.9
	Control	24	0.12	0.42	24	0.00	0.00	22	12.3	3.29	22	9.9	15.7
El Salvador	Treatment	4	0.53	0.50	4	0.00	0.00	4	9.6	0.46	4	0.0	0.0
	Control	7	0.76	0.29	7	0.00	0.00	7	10.5	0.97	7	2.4	4.1
Ghana	Treatment	1	0.04		1	0.00		1	16.3		1	12.4	
	Control	8	0.25	0.29	8	0.00	0.00	7	11.9	3.10	7	6.7	8.6
Guatemala	Treatment	17	0.00	0.22	17	0.00	0.00	17	14.3	2.27	17	2.4	2.4
	Control	43	0.08	0.25	43	0.00	0.00	41	14.9	3.70	40	12.0	11.6
Honduras	Treatment	1	0.06		1	0.00		1	17.1		1	13.3	
	Control	4	0.71	1.15	4	0.00	0.00	4	12.9	4.18	4	35.4	24.8
India	Treatment	8	0.03	0.11	8	0.00	0.00	8	16.5	1.40	8	27.8	20.4
	Control	104	0.08	0.30	104	0.00	0.00	104	14.6	2.91	98	28.7	23.9
Indonesia	Treatment	2	0.38	0.13	2	0.00	0.00	2	17.8	1.03	2	37.0	10.6
	Control	30	0.46	0.29	30	0.00	0.00	30	14.4	2.73	30	22.4	18.8
Mexico	Treatment	12	0.12	0.18	12	0.00	0.00	12	13.0	1.76	12	10.5	14.1
	Control	1089	0.10	0.30	1089	0.00	0.00	1024	11.4	3.07	911	14.3	41.1
Mozambique	Treatment	1	0.37		1	0.00		1	18.4		1	34.7	
	Control	16	0.21	0.25	16	0.00	0.00	16	13.2	4.31	15	20.4	21.5
Panama	Treatment	2	-0.16	0.04	2	0.00	0.00	2	16.6	1.70	2	34.3	30.0
	Control	1	-0.32		1	0.00		1	7.5		1	140.9	
Papua New Guinea	Treatment	1	-0.26		1	0.00		1	17.6		1	29.5	
	Control	14	0.31	1.58	14	0.00	0.00	13	13.9	3.40	13	12.8	16.6
Peru	Treatment	43	0.07	0.18	43	0.00	0.00	43	15.6	2.26	43	19.2	14.8
	Control	1459	0.12	0.32	1459	0.00	0.00	1404	13.8	3.29	1380	18.9	30.9
Philippines	Treatment	39	0.19	0.57	39	0.00	0.00	39	14.8	3.13	38	30.4	19.3
	Control	797	0.13	0.61	797	0.00	0.00	780	12.1	2.53	761	16.1	17.9
Sierra Leone	Treatment	1	0.14		1	0.00		1	13.9		1	11.3	
	Control	3	-0.33	0.78	3	0.00	0.00	3	11.9	3.98	3	16.7	28.1
South Africa	Treatment	6	-0.09	0.30	6	0.00	0.00	6	15.1	0.49	6	12.7	1.6
	Control	308	0.23	0.41	308	0.00	0.00	304	12.9	3.12	292	18.9	18.8
Tanzania	Treatment	2	-0.24	0.23	2	0.00	0.00	2	15.9	1.57	2	19.8	21.6
	Control	26	-0.06	0.57	26	0.00	0.00	25	10.7	2.78	18	16.4	21.8
Venezuela	Treatment	1	-0.11		1	0.00		1	18.1		1	18.9	
	Control	2	-0.06	0.06	2	0.00	0.00	2	12.1	1.87	2	8.5	8.3

Notes: Raw (R) and abnormal ($\widehat{AR}$) returns for each security are previously averaged over the *estimation* window from $\tau = -280$ to $\tau = -30$. Firm characteristics—i.e. size, and leverage—are based the lagged values in the year prior to the event.

Table C.2. Summary Statistics by Headquarter Country

HQ Country:		R (%) N	R (%) Mean	R (%) SD	$\widehat{AR}$ (%) N	$\widehat{AR}$ (%) Mean	$\widehat{AR}$ (%) SD	Log(Size) N	Log(Size) Mean	Log(Size) SD	Leverage (%) N	Leverage (%) Mean	Leverage (%) SD
Australia	Treatment	11	0.14	0.33	11	0.00	0.00	11	15	4.02	11	32.9	14.22
	Control	357	0.14	0.48	357	0.00	0.00	338	12	3.60	294	13.5	22.76
Belgium	Treatment	0			0			0			0		
	Control	24	-0.03	0.17	24	0.00	0.00	24	15	0.24	24	25.8	8.25
Brazil	Treatment	3	0.12	0.37	3	0.00	0.00	3	18	0.29	3	33.3	3.55
	Control	65	0.03	0.24	65	0.00	0.00	65	17	1.89	65	30.4	12.18
Canada	Treatment	53	0.18	0.51	53	0.00	0.00	53	13	2.63	52	9.8	13.25
	Control	1917	0.14	0.48	1917	0.00	0.00	1796	11	2.71	1660	10.6	36.43
China	Treatment	8	0.05	0.21	8	0.00	0.00	8	16	1.38	8	33.3	19.16
	Control	70	0.08	0.20	70	0.00	0.00	70	16	0.61	70	32.4	13.14
Colombia	Treatment	0			0			0			0		
	Control	3	-0.06	0.10	3	0.00	0.00	3	12	0.29	3	5.3	9.13
Finland	Treatment	0			0			0			0		
	Control	4	0.36	0.02	4	0.00	0.00	4	13	0.01	4	3.1	0.29
France	Treatment	0			0			0			0		
	Control	1	0.33		1	0.00		1	16		1	3.4	
Hong Kong	Treatment	6	0.04	0.10	6	0.00	0.00	6	18	2.00	6	40.4	17.45
	Control	45	0.09	0.18	45	0.00	0.00	45	15	2.26	45	32.3	26.67
India	Treatment	4	0.04	0.05	4	0.00	0.00	4	16	1.49	4	20.6	18.30
	Control	107	0.08	0.19	107	0.00	0.00	107	15	2.39	103	32.8	24.56
Indonesia	Treatment	0			0			0			0		
	Control	7	0.48	0.09	7	0.00	0.00	7	14	0.91	7	16.6	17.22
Japan	Treatment	2	0.15	0.19	2	0.00	0.00	2	15	0.31	2	17.7	18.62
	Control	222	0.05	0.10	222	0.00	0.00	222	17	1.20	222	43.0	10.72
Luxembourg	Treatment	2	0.14	0.08	2	0.00	0.00	2	16	0.18	2	24.3	3.70
	Control	10	0.00	0.20	10	0.00	0.00	10	16	0.11	10	20.0	3.66
Malaysia	Treatment	0			0			0			0		
	Control	23	0.03	0.14	23	0.00	0.00	23	12	0.25	23	49.5	4.10
Mexico	Treatment	0			0			0			0		
	Control	48	0.04	0.23	48	0.00	0.00	48	15	1.36	48	26.2	13.66
Netherlands	Treatment	0			0			0			0		
	Control	30	0.09	0.20	30	0.00	0.00	30	18	1.64	30	22.0	2.78
Norway	Treatment	2	0.16	0.07	2	0.00	0.00	2	17	0.04	2	6.0	0.59
	Control	30	0.12	0.37	30	0.00	0.00	30	11	2.60	30	2.8	6.60
Peru	Treatment	10	0.09	0.20	10	0.00	0.00	10	15	0.62	10	5.0	4.74
	Control	134	0.13	0.26	134	0.00	0.00	134	14	1.33	134	15.7	11.93
Philippines	Treatment	14	0.07	0.22	14	0.00	0.00	14	16	2.06	14	41.5	19.90
	Control	347	0.08	0.27	347	0.00	0.00	347	12	1.79	338	13.5	15.19
Russian Federation	Treatment	0			0			0			0		
	Control	7	0.10	0.22	7	0.00	0.00	5	17	0.02	5	44.0	20.82
Singapore	Treatment	0			0			0			0		
	Control	8	1.94	0.84	8	0.00	0.00	8	11	0.29	8	27.2	2.84
South Africa	Treatment	10	-0.04	0.26	10	0.00	0.00	10	16	0.31	10	24.2	10.09
	Control	185	0.10	0.32	185	0.00	0.00	185	15	1.55	185	18.2	12.20
South Korea	Treatment	0			0			0			0		
	Control	24	0.10	0.16	24	0.00	0.00	24	16	1.10	24	11.8	9.03
Thailand	Treatment	0			0			0			0		
	Control	2	0.40	0.03	2	0.00	0.00	2	13	2.21	2	20.1	16.46
United Kingdom	Treatment	24	-0.02	0.27	24	0.00	0.00	24	16	3.07	24	18.8	14.98
	Control	407	0.13	0.42	407	0.00	0.00	399	14	3.96	392	16.9	12.52
United States	Treatment	16	0.07	0.16	16	0.00	0.00	16	16	0.73	16	22.3	9.73
	Control	290	0.09	0.32	290	0.00	0.00	278	14	3.17	275	23.4	38.50

Notes: Raw (R) and abnormal ($\widehat{AR}$) returns for each security are previously averaged over the *estimation* window from $\tau = -280$ to $\tau = -30$. Firm characteristics—i.e. size, and leverage—are based the lagged values in the year prior to the event.

TABLE C.3. Summary Statistics by Listing Country

		R (%)			$\widehat{AR}$ (%)			Log(Size)			Leverage (%)		
Listing Country:		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Australia	Treatment	12	0.14	0.31	12	0.00	0.00	12	15	3.85	12	32.4	13.7
	Control	350	0.13	0.47	350	0.00	0.00	327	12	3.64	285	13.9	23.02
Belgium	Treatment	0			0			0			0		
	Control	24	-0.03	0.17	24	0.00	0.00	24	15	0.24	24	25.8	8.25
Brazil	Treatment	3	0.12	0.37	3	0.00	0.00	3	18	0.29	3	33.3	3.5
	Control	65	0.03	0.24	65	0.00	0.00	65	17	1.89	65	30.4	12.18
Canada	Treatment	38	0.27	0.58	38	0.00	0.00	38	12	2.07	37	5.8	10.1
	Control	1761	0.15	0.49	1761	0.00	0.00	1640	11	2.51	1504	10.3	38.01
China	Treatment	8	0.05	0.21	8	0.00	0.00	8	16	1.38	8	33.3	19.2
	Control	12	0.10	0.22	12	0.00	0.00	12	16	0.78	12	46.3	13.17
Colombia	Treatment	0			0			0			0		
	Control	3	-0.06	0.10	3	0.00	0.00	3	12	0.29	3	5.3	9.13
Finland	Treatment	0			0			0			0		
	Control	4	0.36	0.02	4	0.00	0.00	4	13	0.01	4	3.1	0.29
France	Treatment	0			0			0			0		
	Control	1	0.33		1	0.00		1	16		1	3.4	
Hong Kong	Treatment	6	0.04	0.10	6	0.00	0.00	6	18	2.00	6	40.4	17.4
	Control	103	0.08	0.19	103	0.00	0.00	103	16	1.74	103	30.8	19.48
India	Treatment	4	0.04	0.05	4	0.00	0.00	4	16	1.49	4	20.6	18.3
	Control	107	0.08	0.19	107	0.00	0.00	107	15	2.39	103	32.8	24.56
Indonesia	Treatment	0			0			0			0		
	Control	7	0.48	0.09	7	0.00	0.00	7	14	0.91	7	16.6	17.22
Japan	Treatment	2	0.15	0.19	2	0.00	0.00	2	15	0.31	2	17.7	18.6
	Control	222	0.05	0.10	222	0.00	0.00	222	17	1.20	222	43.0	10.72
Malaysia	Treatment	0			0			0			0		
	Control	23	0.03	0.14	23	0.00	0.00	23	12	0.25	23	49.5	4.10
Mexico	Treatment	0			0			0			0		
	Control	48	0.04	0.23	48	0.00	0.00	48	15	1.36	48	26.2	13.66
Netherlands	Treatment	0			0			0			0		
	Control	30	0.09	0.20	30	0.00	0.00	30	18	1.64	30	22.0	2.78
Norway	Treatment	3	-0.07	0.32	3	0.00	0.00	3	13	1.16	3	30.1	24.1
	Control	30	0.12	0.37	30	0.00	0.00	30	11	2.60	30	2.8	6.60
Peru	Treatment	0			0			0			0		
	Control	115	0.14	0.27	115	0.00	0.00	115	13	1.32	115	17.2	12.08
Philippines	Treatment	14	0.07	0.22	14	0.00	0.00	14	16	2.06	14	41.5	19.9
	Control	347	0.08	0.27	347	0.00	0.00	347	12	1.79	338	13.5	15.19
Singapore	Treatment	0			0			0			0		
	Control	8	1.94	0.84	8	0.00	0.00	8	11	0.29	8	27.2	2.84
South Africa	Treatment	3	0.14	0.28	3	0.00	0.00	3	16	0.07	3	12.6	2.4
	Control	179	0.11	0.31	179	0.00	0.00	179	15	1.50	179	18.4	12.01
South Korea	Treatment	0			0			0			0		
	Control	24	0.10	0.16	24	0.00	0.00	24	16	1.10	24	11.8	9.03
Thailand	Treatment	0			0			0			0		
	Control	2	0.40	0.03	2	0.00	0.00	2	13	2.21	2	20.1	16.46
United Kingdom	Treatment	24	-0.02	0.27	24	0.00	0.00	24	16	3.07	24	18.8	15.0
	Control	411	0.13	0.42	411	0.00	0.00	405	14	3.96	396	16.7	12.57
United States	Treatment	48	0.02	0.18	48	0.00	0.00	48	16	1.04	48	17.6	12.0
	Control	491	0.08	0.27	491	0.00	0.00	479	14	2.71	476	19.3	30.98

Notes: Raw (R) and abnormal ($\widehat{AR}$) returns for each security are previously averaged over the *estimation* window from $\tau = -280$ to $\tau = -30$. Firm characteristics—i.e. size, and leverage—are based the lagged values in the year prior to the event.

C.2. The Impact of Assassination on Firms

TABLE C.4. The Effect of Assassinations on Stock Returns

			p-value			
	Mean	SD	t-test	BMP	adj. BMP	GRANK
CAR(0,0)	-0.0008	0.0035	0.814	0.421	0.535	0.641
CAR(0,1)	-0.0068	0.0049	0.160	0.064	0.154	0.226
CAR(0,2)	-0.0075	0.0060	0.209	0.110	0.219	0.152
CAR(0,3)	-0.0044	0.0069	0.528	0.180	0.302	0.041
CAR(0,4)	-0.0066	0.0077	0.396	0.109	0.218	0.032
CAR(0,5)	-0.0081	0.0085	0.342	0.144	0.260	0.056
CAR(0,6)	-0.0106	0.0090	0.242	0.073	0.167	0.032
CAR(0,7)	-0.0130	0.0097	0.180	0.044	0.121	0.019
CAR(0,8)	-0.0147	0.0102	0.150	0.036	0.107	0.013
CAR(0,9)	-0.0205	0.0108	0.059	0.016	0.064	0.001
CAR(0,10)	-0.0201	0.0114	0.078	0.032	0.099	0.004

Notes:
The number of company-event pairs N is 161. The respective average cumulative abnormal return (CAR) and its standard deviation (SD) are presented in columns 1 and 2 (c. equations (4) and (A.2) in Section **??**). A minimum of 8 trading days during the *event window* from 0 to 10 is required. *The estimation window* spans from day -280 to -30 with a minimum of 200 trading days. Columns 3 - 6 show the p-value of the respective test-statistic. For details on the applied test-statistics see Appendix A.1.

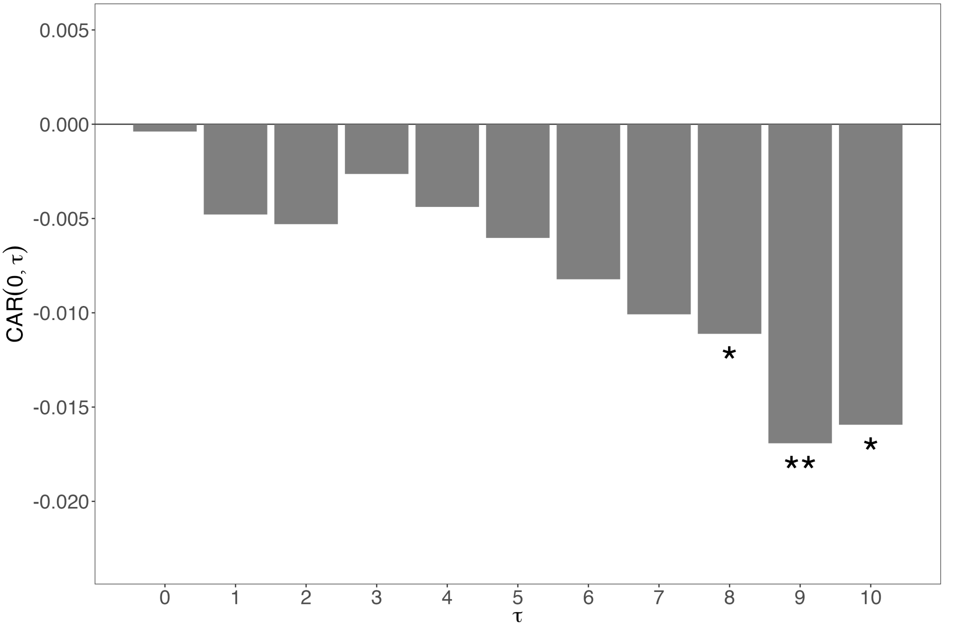


FIGURE C.5. Fama-French 4-Factor Model. The average cumulative abnormal returns (CARs) for the Fama-French 4-Factor Model are presented. The number of company-event pairs, N, is 167. A minimum of 8 trading days is required during the event window from 0 to 10. The estimation window spans from Days -280 to Day -30 with a minimum of 200 trading days during this period. Stars depict significance levels for the GRANK (Kolari and Pynnönen 2011) test-statistic: *p<0.1, ** p<0.05, *** p<0.01.

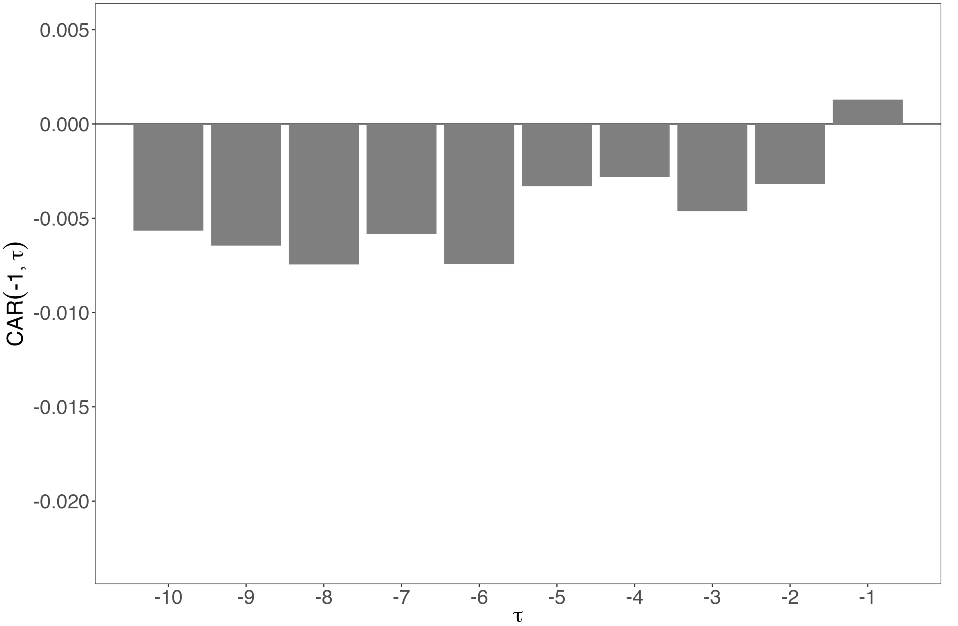


Figure C.6. Private Information and Pre-Trends. The average cumulative abnormal returns (CARs) for the baseline market model are presented. The number of company-event pairs, N, is 170. A minimum of 8 trading days during the event window from Days -1 to -10 is required. The estimation window spans from Day -280 to Day -30 with a minimum of 200 trading days during this period. Stars depict significance levels for the GRANK (Kolari and Pynnönen 2011) test-statistic: *p<0.1, ** p<0.05, *** p<0.01.

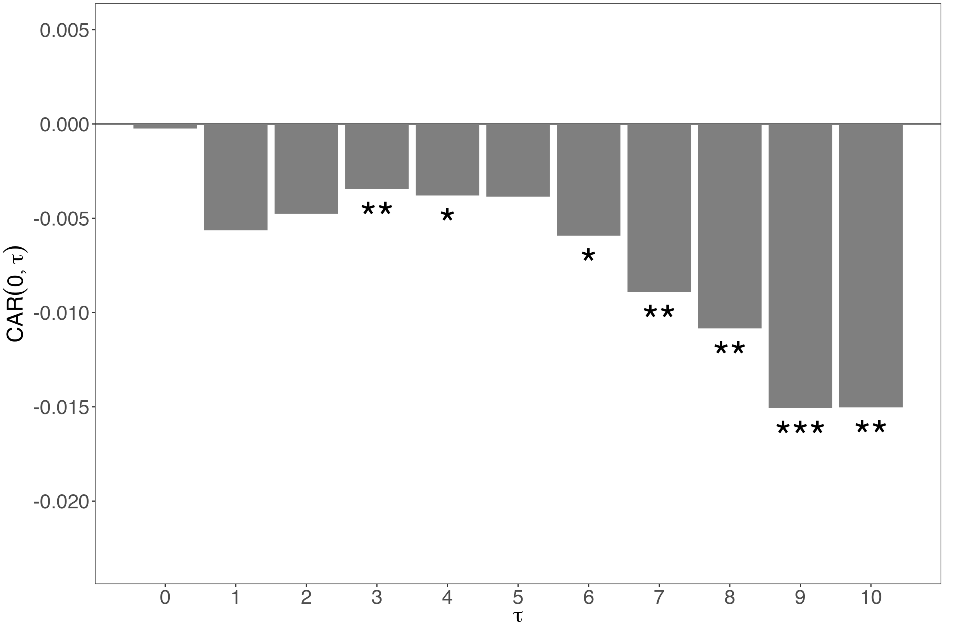


Figure C.7. Alternative Threshold for Trading Frequency. The average cumulative abnormal return (CAR) for the baseline market model is presented. The number of company-event pairs, N, is 160. Stocks have to be traded on each trading day during the event window from 0 to 10 and on at least 225 days during the estimation window spanning from Day -280 to Day -30. Stars depict significance levels for the GRANK (Kolari and Pynnönen 2011) test-statistic: *p<0.1, ** p<0.05, *** p<0.01

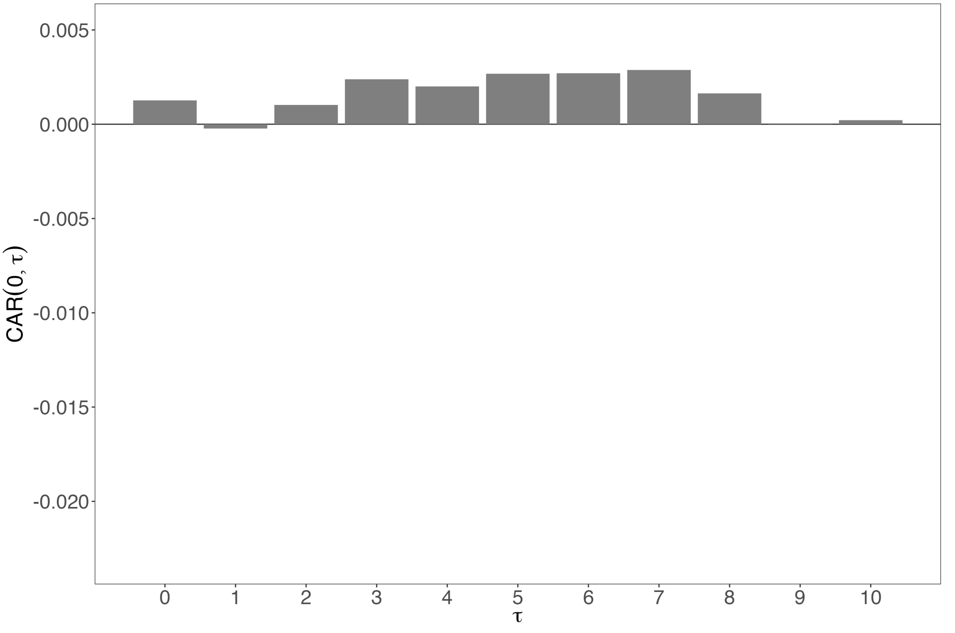


FIGURE C.8. Placebo Effect of Assassinations on Control Companies. The average cumulative abnormal return (CAR) for the baseline market model is presented. The number of company-event pairs, N, is 4527. A minimum of 8 trading days during the event window from Day -1 to Day -10 is required. The estimation window spans from Day -280 to Day -30 with a minimum of 200 trading days during this period. Stars depict significance levels for the GRANK (Kolari and Pynnönen 2011) test-statistic: *p<0.1, ** p<0.05, *** p<0.01

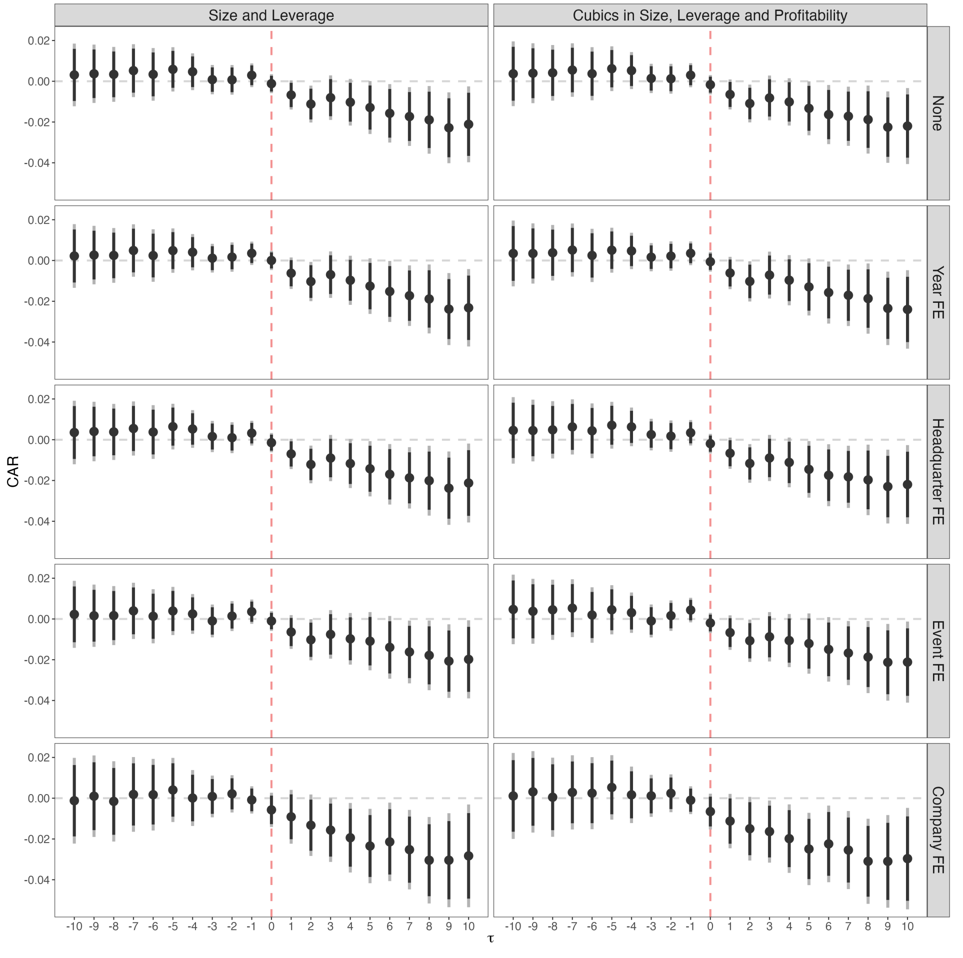


FIGURE C.9. Robustness – Fixed Effects and Firm Characteristics. The coefficients when regressing the cumulative abnormal returns (CARs) on an indicator for being tied to an assassination event are represented by black dots. The horizontal axis represents the trading days before and after the event on $\tau = 0$. CARs are aggregated backward before the event date and forward starting with the event date (e.g., -5 refers to the CAR between -1 and -5 while 5 refers to the CAR between 0 and 5). Each cell corresponds to a different regression specification, with columns capturing control variable definitions and rows reflecting the inclusion of various fixed effects. In total, the coefficients of 210 regressions are displayed; 90% and 95% confidence intervals using robust standard errors clustered at the event level are depicted in black and gray, respectively.

Table C.5. Robustness — Sample Definitions

	Excl. Unsuccessful Attempts					Excl. Killings during Protests					Winsorized				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
CAR(0,0)	-0.0013	-0.0002	-0.0017	-0.0008	-0.0066	-0.0008	0.0005	-0.0014	0.0007	-0.0054	0.0002	0.0012	-0.0001	0.0011	-0.0011
	(0.0025)	(0.0026)	(0.0026)	(0.0026)	(0.0048)	(0.0027)	(0.0027)	(0.0028)	(0.0027)	(0.0059)	(0.0021)	(0.0021)	(0.0021)	(0.0022)	(0.0029)
CAR(0,1)	-0.0071*	-0.0068	-0.0073*	-0.0063	-0.0105	-0.0056*	-0.0049	-0.0062*	-0.0042	-0.0067	-0.0038	-0.0033	-0.0040	-0.0033	-0.0035
	(0.0040)	(0.0042)	(0.0041)	(0.0046)	(0.0076)	(0.0031)	(0.0032)	(0.0033)	(0.0034)	(0.0071)	(0.0025)	(0.0026)	(0.0025)	(0.0026)	(0.0035)
CAR(0,2)	-0.0106**	-0.0101*	-0.0116**	-0.0093*	-0.0134	-0.0108**	-0.0092*	-0.0119**	-0.0078	-0.0145*	-0.0076**	-0.0070*	-0.0085**	-0.0069*	-0.0064
	(0.0050)	(0.0052)	(0.0051)	(0.0055)	(0.0087)	(0.0048)	(0.0050)	(0.0051)	(0.0051)	(0.0087)	(0.0038)	(0.0039)	(0.0039)	(0.0040)	(0.0045)
CAR(0,3)	-0.0073	-0.0064	-0.0083	-0.0063	-0.0146	-0.0085	-0.0059	-0.0094	-0.0058	-0.0192**	-0.0098**	-0.0089**	-0.0108***	-0.0093**	-0.0096*
	(0.0061)	(0.0063)	(0.0063)	(0.0065)	(0.0089)	(0.0064)	(0.0065)	(0.0068)	(0.0066)	(0.0090)	(0.0040)	(0.0040)	(0.0040)	(0.0040)	(0.0054)
CAR(0,4)	-0.0105*	-0.0097	-0.0120*	-0.0090	-0.0195**	-0.0096	-0.0068	-0.0107	-0.0061	-0.0184*	-0.0095**	-0.0090*	-0.0110**	-0.0091*	-0.0130**
	(0.0063)	(0.0066)	(0.0066)	(0.0070)	(0.0096)	(0.0068)	(0.0071)	(0.0074)	(0.0073)	(0.0101)	(0.0045)	(0.0046)	(0.0047)	(0.0047)	(0.0059)
CAR(0,5)	-0.0134*	-0.0127*	-0.0150**	-0.0106	-0.0235**	-0.0143*	-0.0122	-0.0157*	-0.0091	-0.0251**	-0.0142***	-0.0141***	-0.0157***	-0.0123**	-0.0165**
	(0.0071)	(0.0074)	(0.0074)	(0.0078)	(0.0104)	(0.0080)	(0.0083)	(0.0085)	(0.0084)	(0.0114)	(0.0049)	(0.0050)	(0.0050)	(0.0052)	(0.0064)
CAR(0,6)	-0.0177**	-0.0165**	-0.0193**	-0.0151*	-0.0230**	-0.0183**	-0.0159*	-0.0198**	-0.0138	-0.0228*	-0.0150**	-0.0150**	-0.0163***	-0.0140**	-0.0144**
	(0.0077)	(0.0079)	(0.0079)	(0.0083)	(0.0107)	(0.0090)	(0.0093)	(0.0093)	(0.0093)	(0.0117)	(0.0058)	(0.0059)	(0.0060)	(0.0060)	(0.0072)
CAR(0,7)	-0.0200**	-0.0189**	-0.0219***	-0.0176**	-0.0281***	-0.0203**	-0.0184**	-0.0222**	-0.0164*	-0.0267**	-0.0168***	-0.0170***	-0.0182***	-0.0162***	-0.0184**
	(0.0077)	(0.0079)	(0.0080)	(0.0083)	(0.0107)	(0.0091)	(0.0092)	(0.0093)	(0.0094)	(0.0122)	(0.0058)	(0.0059)	(0.0061)	(0.0061)	(0.0075)
CAR(0,8)	-0.0214**	-0.0199**	-0.0232**	-0.0193**	-0.0338***	-0.0195*	-0.0174	-0.0221*	-0.0146	-0.0328**	-0.0193***	-0.0194***	-0.0206***	-0.0187***	-0.0236***
	(0.0089)	(0.0091)	(0.0092)	(0.0093)	(0.0118)	(0.0109)	(0.0111)	(0.0111)	(0.0109)	(0.0145)	(0.0067)	(0.0067)	(0.0069)	(0.0068)	(0.0083)
CAR(0,9)	-0.0253***	-0.0248**	-0.0269***	-0.0219**	-0.0349***	-0.0227**	-0.0217*	-0.0250**	-0.0159	-0.0316*	-0.0214***	-0.0220***	-0.0225***	-0.0211***	-0.0206**
	(0.0094)	(0.0096)	(0.0097)	(0.0098)	(0.0127)	(0.0114)	(0.0116)	(0.0117)	(0.0117)	(0.0163)	(0.0072)	(0.0072)	(0.0074)	(0.0074)	(0.0090)
CAR(0,10)	-0.0227**	-0.0228**	-0.0235**	-0.0199*	-0.0324**	-0.0216*	-0.0217*	-0.0229*	-0.0160	-0.0310*	-0.0181**	-0.0193**	-0.0192**	-0.0189**	-0.0150
	(0.0097)	(0.0100)	(0.0101)	(0.0102)	(0.0131)	(0.0118)	(0.0120)	(0.0122)	(0.0122)	(0.0172)	(0.0076)	(0.0077)	(0.0078)	(0.0080)	(0.0097)
Size & Leverage	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Year FE		✓					✓					✓			
Headquarter FE			✓					✓					✓		
Event FE				✓					✓					✓	
Company FE					✓					✓					✓
Observations	3581	3580	3580	3580	3505	2597	2596	2596	2596	2514	3816	3815	3815	3815	3731
Clusters	126	125	126	125	125	102	101	102	101	102	138	137	138	136	138

Notes: Robust standard errors clustered at the event level are in parentheses: * $p<0.1$, ** $p<0.5$, *** $p<0.01$.

Table C.6. Robustness – Vicinity vs. Human Rights Spotlight

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
CAR(0,0)	-0.0018	0.0005	-0.0017	-0.0014	-0.0070	-0.0021	-0.0001	-0.0017	-0.0016	-0.0061
	(0.0034)	(0.0031)	(0.0038)	(0.0037)	(0.0065)	(0.0035)	(0.0034)	(0.0039)	(0.0039)	(0.0066)
CAR(0,1)	-0.0073	-0.0046	-0.0079	-0.0062	-0.0194	-0.0070	-0.0044	-0.0075	-0.0058	-0.0178
	(0.0057)	(0.0059)	(0.0064)	(0.0069)	(0.0130)	(0.0060)	(0.0061)	(0.0069)	(0.0071)	(0.0133)
CAR(0,2)	-0.0101	-0.0071	-0.0112	-0.0098	-0.0179	-0.0100	-0.0070	-0.0108	-0.0104	-0.0170
	(0.0065)	(0.0069)	(0.0074)	(0.0088)	(0.0131)	(0.0068)	(0.0071)	(0.0077)	(0.0089)	(0.0135)
CAR(0,3)	-0.0117	-0.0081	-0.0121	-0.0087	-0.0218	-0.0116	-0.0073	-0.0118	-0.0075	-0.0190
	(0.0073)	(0.0077)	(0.0084)	(0.0095)	(0.0138)	(0.0074)	(0.0079)	(0.0085)	(0.0096)	(0.0142)
CAR(0,4)	-0.0138*	-0.0096	-0.0147*	-0.0111	-0.0254*	-0.0142*	-0.0091	-0.0153*	-0.0102	-0.0219
	(0.0075)	(0.0080)	(0.0088)	(0.0096)	(0.0143)	(0.0075)	(0.0081)	(0.0088)	(0.0097)	(0.0145)
CAR(0,5)	-0.0157*	-0.0115	-0.0170*	-0.0113	-0.0282*	-0.0167*	-0.0111	-0.0187*	-0.0093	-0.0237
	(0.0083)	(0.0092)	(0.0098)	(0.0107)	(0.0162)	(0.0084)	(0.0092)	(0.0100)	(0.0107)	(0.0164)
CAR(0,6)	-0.0166*	-0.0118	-0.0190*	-0.0129	-0.0186	-0.0175*	-0.0115	-0.0211*	-0.0114	-0.0167
	(0.0090)	(0.0098)	(0.0103)	(0.0109)	(0.0164)	(0.0092)	(0.0098)	(0.0107)	(0.0108)	(0.0165)
CAR(0,7)	-0.0181**	-0.0139	-0.0204**	-0.0141	-0.0213	-0.0179*	-0.0121	-0.0210*	-0.0107	-0.0189
	(0.0088)	(0.0097)	(0.0102)	(0.0110)	(0.0162)	(0.0091)	(0.0100)	(0.0106)	(0.0110)	(0.0165)
CAR(0,8)	-0.0200**	-0.0151	-0.0226*	-0.0146	-0.0301*	-0.0200*	-0.0137	-0.0233*	-0.0112	-0.0264
	(0.0099)	(0.0107)	(0.0118)	(0.0118)	(0.0180)	(0.0102)	(0.0110)	(0.0121)	(0.0118)	(0.0182)
CAR(0,9)	-0.0241**	-0.0193*	-0.0229*	-0.0146	-0.0331*	-0.0241**	-0.0188	-0.0228*	-0.0125	-0.0283
	(0.0105)	(0.0110)	(0.0123)	(0.0118)	(0.0194)	(0.0107)	(0.0116)	(0.0125)	(0.0119)	(0.0197)
CAR(0,10)	-0.0237**	-0.0190	-0.0213	-0.0133	-0.0286	-0.0240**	-0.0187	-0.0207	-0.0083	-0.0232
	(0.0109)	(0.0116)	(0.0128)	(0.0123)	(0.0210)	(0.0112)	(0.0123)	(0.0131)	(0.0124)	(0.0213)
Size & Leverage	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3rd Degree Polynomials						✓	✓	✓	✓	✓
Year FE		✓					✓			
Headquarter FE			✓					✓		
Event FE				✓					✓	
Company FE					✓					✓
Observations	666	666	666	663	596	648	648	648	643	577
Clusters	88	88	88	85	86	88	88	88	83	84

Notes: 3rd degree polynomials refers to specifications that include third degree polynomials of size, leverage, and profitability. Robust standard errors clustered at the event level are in parentheses: * $p<0.1$, ** $p<0.5$, *** $p<0.01$.

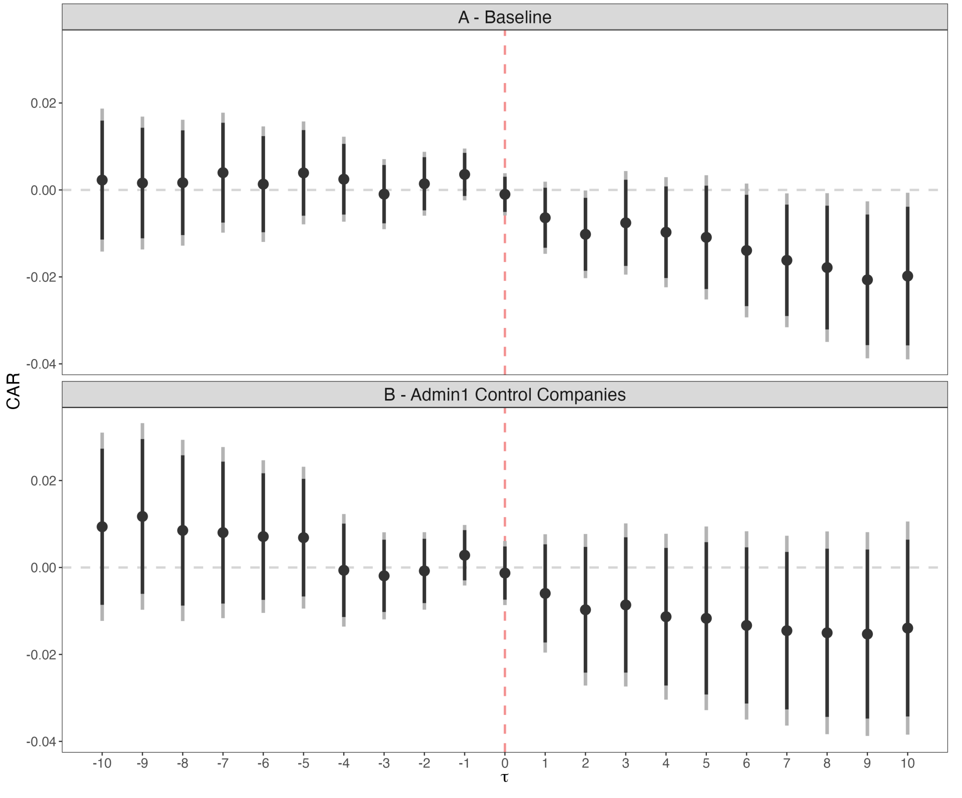


FIGURE C.10. Robustness – Vicinity vs. Human Rights Spotlight. The black dots correspond to the coefficient estimates for being tied to an assassination in our event-fixed effect specification. Panel A presents the baseline sample estimates, while Panel B presents the results when restricting the control group to companies active in the Admin1 region of the assassination event; 90% and 95% confidence intervals using robust standard errors clustered at the event level are depicted in black and gray, respectively.

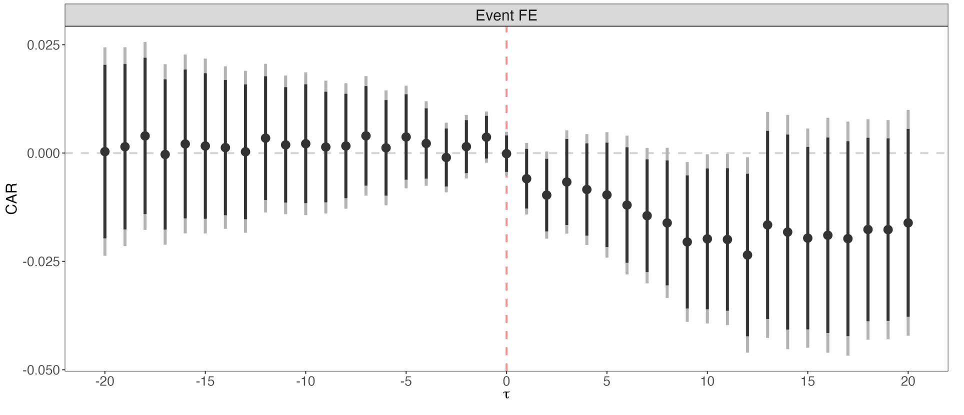


FIGURE C.11. Robustness – Wide Event Window +/- 20. The coefficients when regressing the cumulative abnormal returns (CARs) on an indicator for being tied to an assassination event is represented by black dots for our event-fixed effects specification. Each dot corresponds to a separate regression coefficient estimate. The horizontal axis represents the trading days before and after the event on $\tau = 0$. CARs are aggregated backward before the event date and forward starting with the event date (e.g., -5 refers to the CAR between -1 and -5 while 5 refers to the CAR between 0 and 5); 90% and 95% confidence intervals using robust standard errors clustered at the event level are depicted in black and gray respectively.

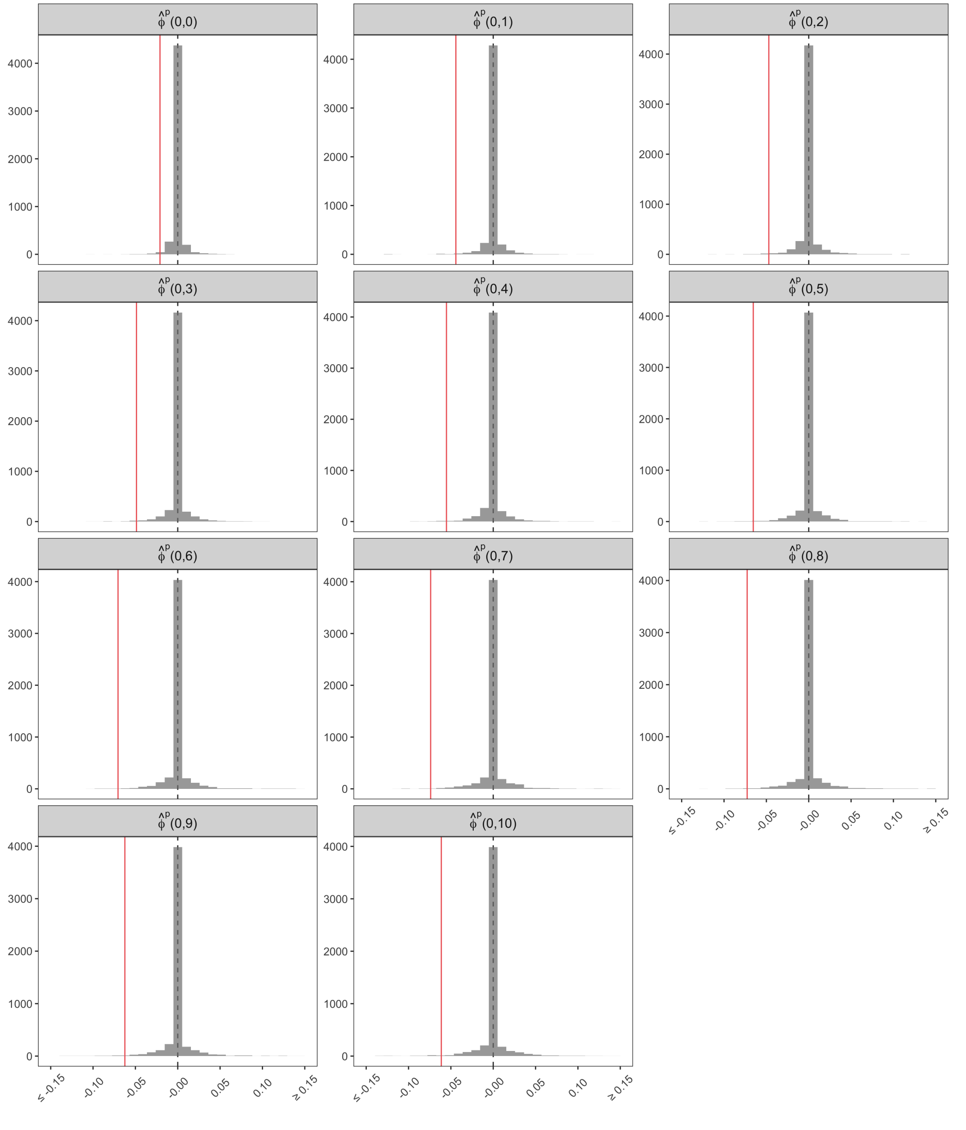


FIGURE C.12. The distribution of $\hat{\varphi}^p$ from $P = 5,000$ *placebo* treatment effect replications (with $p = 1, \ldots, 5000$) is presented separately for each aggregation period. For more details on the synthetic matching method, please see Section A.2.

C.3. Mechanisms: The Media

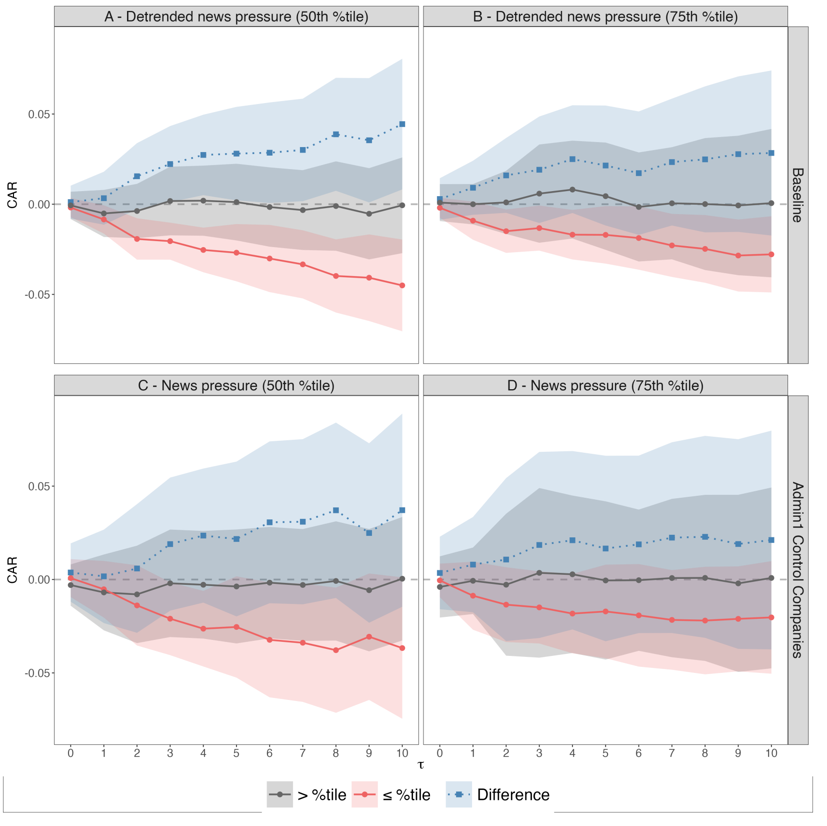


FIGURE C.13. Additional Robustness Checks. Red and black solid lines as well as dots denote the heterogeneous marginal treatment effects of assassination events on cumulative abnormal returns (CARs). The estimated (absolute) difference in treatment effects is represented by the dotted line with squares. The horizontal axis represents the trading days relative to the event day $\tau = 0$. In each panel, the treatment indicator D in our baseline specification in Equation 5 is interacted with a different binary indicator for a high level of news pressure on the event day: *(i)* above median Eisensee and Strömberg (2007) news pressure day (Panel A and C) and *(ii)* above the 75th percentile Eisensee and Strömberg (2007) news pressure day (Panel B and D). Panels A and B are estimated on the baseline sample using a "detrended" news pressure index; Panels C and D are estimated on the Admin1 control company sample using the standard news pressure index; 95% confidence intervals using robust standard errors clustered at the event level are displayed.

C.3.1. Additional Robustness Checks. In this paragraph, we show that our benchmark results in Section 5.1 are robust to a battery of additional sensitivity checks. Panels A and B (Appendix Figure C.13) show that the results above are virtually unchanged if we de-trend the daily news pressure index of Eisensee and Strömberg (2007) before applying the sample splits to account for the observed integration of media markets over time.[12] Furthermore, the estimates (Panels C and D) are qualitatively similar if the control group set is restricted to companies active in the Admin1 region of the assassination event; however, the smaller sample size reduces the power and precision of these estimates.

In Table C.7 we run a time-series model at the daily level for our sample period, where we regress assassination events on the news pressure of the day. The intuition behind this test is that the reporting of assassination is not affected by the level of high news pressure. This is confirmed by the estimation results using different sets of time-fixed effects.

Table C.7. Daily News pressure and Assassination Event Timing

	OLS	Probit			
	(1)	(2)	(3)	(4)	(5)
News Pressure	0.00110 (0.00071)	0.00107 (0.00065)	0.00083 (0.00068)	0.00086 (0.00068)	0.00028 (0.00069)
Year FE			✓	✓	✓
Month FE				✓	✓
DoW FE					✓
Observations	7519	7519	7161	7161	7161

DoW FE denotes day of the week fixed effects. Marginal effects for Probit and LPM specifications are reported. Robust standard errors clustered at the event level are in parentheses: * p<0.1, ** p<0.5, *** p<0.01.

C.3.2. Alternative Monitoring Institutions. Here, we turn to a related question: does more transparency surrounding the extractive industry impact asset prices? We show that membership in a major civil society program to increase monitoring of the mining industry—the global Extractive Industries Transparency Initiative (EITI)—also impacts market responses to assassination events. Among other things, EITI commits member countries to fully disclose taxes and payments made by mining companies to their governments; for further details, see Section 6. Data on "join" and leave" dates of member countries comes from the EITI API version v2. Appendix Figure C.14 Panel A shows that, like media, civil society transparency may amplify the publicity effect of assassination events. Assassination events that occurred in a country that was an EITI member at the time have a relatively stronger negative effect on the associated mining company's market value than events that happened in non-EITI member countries.

12. Eisensee and Strömberg (2007) note that media market integration increases the availability of breaking news stories; this is seen in the slight upward trend in the daily news pressure for the 1968–2003 period.

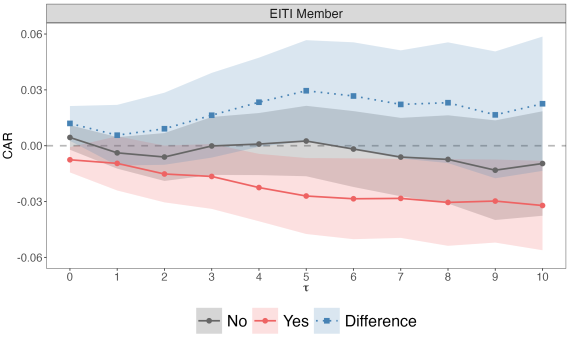


FIGURE C.14. The Impact of Oversight. Red, respectively black solid lines and dots denote the heterogeneous marginal treatment effect of assassination events on cumulative abnormal returns (CAR). The estimated (absolute) difference in treatment effects is represented by the dotted line and squares. The horizontal axis label denotes the trading days relative to the event day $\tau = 0$. We interact the treatment indicator D in our baseline specification 5 with a binary indicator for EITI membership of the event country.

C.4. Mechanisms: Institutional Investors

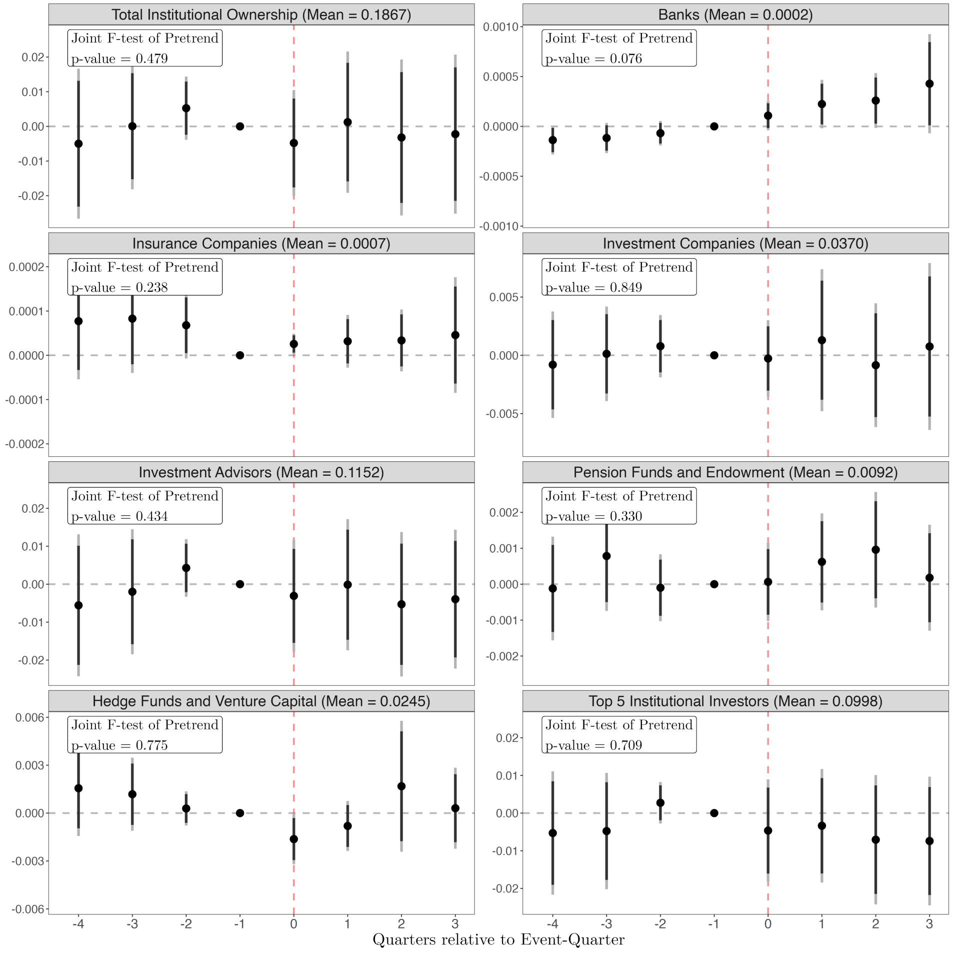


FIGURE C.15. Robustness – Time-varying Firm Characteristics. The effect of assassination events on institutional investors' holding positions is presented. The set of time-varying firm characteristics comprises size, leverage profitability, tangibility, and Tobin's Q, all lagged by one year. The control group comprises corporations active in the mining sector. The dependent variable mean is presented in parentheses in the column header; 90% and 95% confidence intervals using robust standard errors clustered at the company level are displayed in black and gray, respectively.

C.5. Mechanisms: Corporate Social Responsibility Scores

Investment managers and institutional funds may rely on external environmental, social, and governance (ESG) indicators as a source of information about human rights violations by a company. We consider if this key indicator for institutional investors itself reacts to the human rights violations in our study.

Data. We do so using data on firms' environmental and social (E&S) performance from the Thomson Reuters ASSET4 ESG database. Their information on relevant E&S actions of large, publicly traded companies is obtained from stock exchange filings, CSR and annual reports, and non-government organization websites. Annual ESG scores are available for the period 2002-2019 and cover a total of 104 event-years for 46 public mining firms.

Empirical Framework. Since, by construction, human rights violations affect a company's ESG score only in the event year, our baseline tests examine the relation between assassination events and E&S performance using the following specification Dyck et al. (c., for instance, 2019):

$$\log\left(\text{Score}_{it}\right) = \alpha + \delta D_i + \boldsymbol{X}'_{it-1}\varphi + \gamma_i + \lambda_t + \varepsilon_{it}, \tag{C.1}$$

where $\log(\text{Score}_{it})$ is the log (plus one) of the E&S scores of company i in year t, D^{τ}_{it} is a dummy equaling 1 if company i was associated with (at least) one assassination event in year t, $\boldsymbol{X}_{it}$ is a set of firm-level controls in year $t-1$ (size, asset tangibility, leverage, Tobin's q, and profitability), and γ_i and λ_t are year- and company-fixed effects, respectively.[13]

Results. We report the results in Table C.8. Columns 1 and 2 show that the assassination event has no impact on either the overall ESG performance score or the ESG score when controversies are specifically discarded (ESGC score), as provided by Thomson Reuters. In Columns 3 and 4, we focus on the ESG categories that should be most impacted by the events in our data: human rights and community scores. For each category, we find no significant impact of our events on the scores. While Thomson Reuters uses rank-based scores relative to all other companies for these categories, Dyck et al. (2019) rely on indicator-based scores.[14] Columns 5 and 6 present the results when applying their scoring method. The effects are still indistinguishable from zero, although both point estimates now exhibit a negative sign. The results are qualitatively unchanged when we account for the potential impact of institutional investors on ESG scores (Dyck et al. 2019), by including the total institutional ownership share at the end of year t-1 as an additional control variable (Table C.9) or when we estimate a lagged dependent variable model (Table C.10).

Our results mirror the survey responses of institutional investors in Business and Human Rights Clinic (2018) regarding the human rights information

13. Following Dyck et al. (2019), we use logs of E&S scores to obtain better distributional properties and to reduce the impact of outliers. Our results are qualitatively unchanged when using raw scores instead.

14. Details on the calculation of the category scores in the manner of Dyck et al. (2019) are presented in Appendix Section B.3.

provided by external ESG indicators. The responses reveal a concern in the industry that ESG indicators often fail to cover large companies operating in emerging markets. Responsible investment managers often have to directly liaise with NGOs to receive information about human rights violations. One investment manager interviewed even stated that civil society accounts of companies' activities are a "fundamental component of his organization's tools for ensuring that they invest responsibly" (Business and Human Rights Clinic 2018, p. 10).

Table C.8. The Effect of Assassinations on ESG Scores

	Asset4 z-Score				Dyck et al. (2019)	
	ESG	ESGC	Human Rights	Community	Human Rights	Community
Assassination	0.0061 (0.0300)	-0.0143 (0.0396)	-0.0496 (0.0813)	0.1136 (0.0780)	-0.0143 (0.0278)	-0.0078 (0.0189)
Company Fundamentals	✓	✓	✓	✓	✓	✓
Institutional Ownsership						
Lagged Dependent Variable						
Company FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
Observations	53805	53805	23864	53541	53313	44895

Notes: Rank based Asset4 z-Scores provided by Thomson Reuter are presented in columns 1 to 4. Columns 5 and 6 present indicator based scores following the procedure outlined in Dyck et al. (2019) and detailed in Section B.3 in the Appendix. Robust standard errors clustered at the company level are in parentheses: *p<0.1, ** p<0.05, *** p<0.01.

Table C.9. Robustness — Controlling for Institutional Ownsership

	Asset4 z-Score				Dyck et al. (2019)	
	ESG	ESGC	Human Rights	Community	Human Rights	Community
Assassination	-0.0081 (0.0320)	-0.0314 (0.0418)	-0.0328 (0.0907)	0.0861 (0.0938)	-0.0154 (0.0292)	-0.0182 (0.0188)
Company Fundamentals	✓	✓	✓	✓	✓	✓
Institutional Ownsership	✓	✓	✓	✓	✓	✓
Lagged Dependent Variable						
Company FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
Observations	41912	41912	17953	41667	41665	35843

Notes: Rank based Asset4 z-Scores provided by Thomson Reuter are presented in columns 1 to 4. Columns 5 and 6 present indicator based scores following the procedure outlined in Dyck et al. (2019) and detailed in Section B.3 in the Appendix. Robust standard errors clustered at the company level are in parentheses: *p<0.1, ** p<0.05, *** p<0.01.

Table C.10. Robustness – Lagged Dependent Variable

	Asset4 z-Score				Dyck et al. (2019)	
	ESG	ESGC	Human Rights	Community	Human Rights	Community
Assassination	-0.0155 (0.0235)	-0.0288 (0.0362)	-0.0650 (0.0611)	0.0347 (0.0461)	-0.0300 (0.0223)	-0.0229 (0.0186)
Company Fundamentals	✓	✓	✓	✓	✓	✓
Institutional Ownsership						
Lagged Dependent Variable	✓	✓	✓	✓	✓	✓
Company FE	✓	✓	✓	✓	✓	✓
Year FE	✓	✓	✓	✓	✓	✓
Observations	47126	47126	19149	46744	46682	36883

Notes: Rank based Asset4 z-Scores provided by Thomson Reuter are presented in columns 1 to 4. Columns 5 and 6 present indicator based scores following the procedure outlined in Dyck et al. (2019) and detailed in Section B.3 in the Appendix. Robust standard errors clustered at the company level are in parentheses: *p<0.1, ** p<0.05, *** p<0.01.

C.6. Mechanisms: Supply Chain

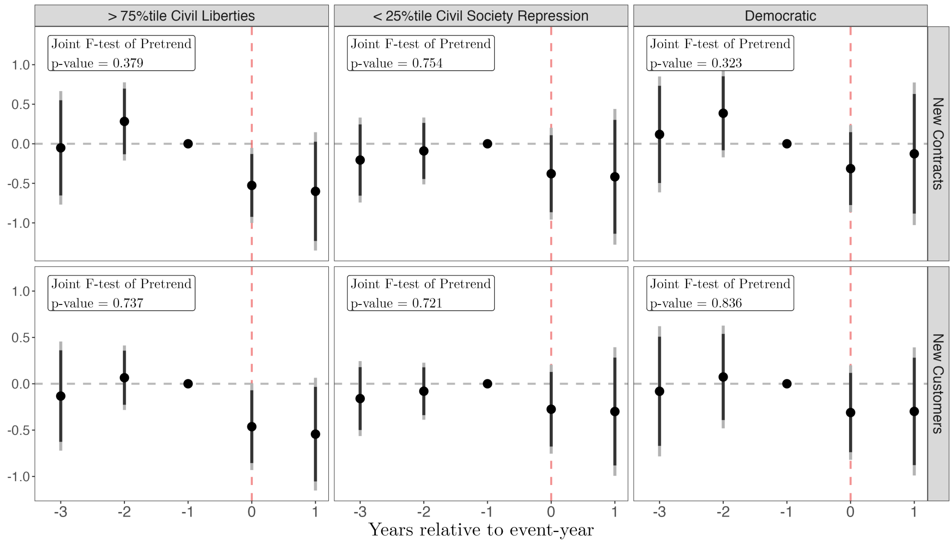


Figure C.16. Robustness – Alternative Indicators. The effect of assassination events on supply chain contracting is presented. Row headers specify dependent variables. Column headers refer to the "type" of contracts/customers considered in the respective specification. The horizontal axis represents the years before and after the event year, $\tau = 0$. The control group comprises corporations active in the mining sector; 90% and 95% confidence intervals using robust standard errors clustered at the company level are displayed in black and gray, respectively.

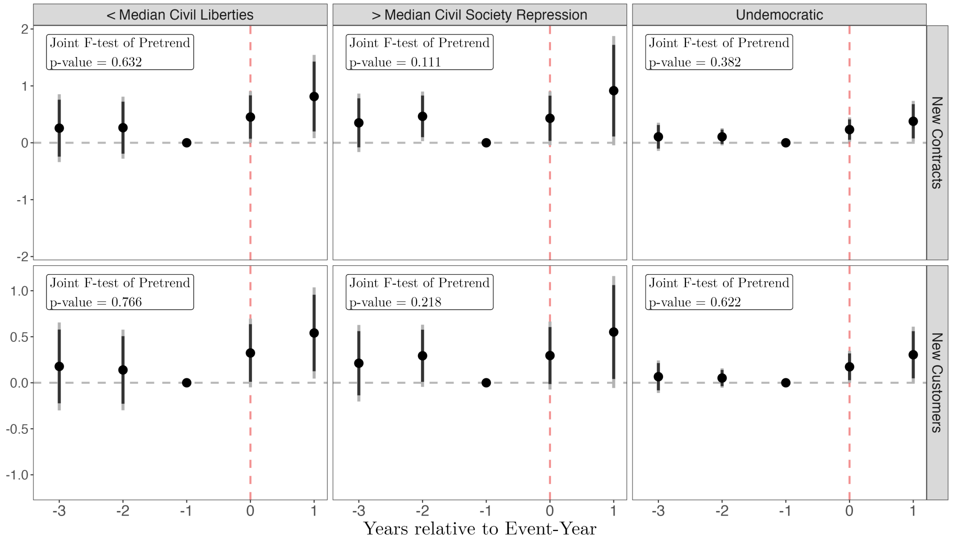


FIGURE C.17. Robustness – Authoritarian Regimes. The effect of assassination events on supply chain contracting is presented. Row headers specify dependent variables. Column headers refer to the "type" of contracts/customers considered in the respective specifications. The horizontal axis represents the years before and after the event year, $\tau = 0$. The control group comprises corporations active in the mining sector; 90% and 95% confidence intervals using robust standard errors clustered at the company level are displayed in black and gray, respectively.

C.7. Mechanisms: Direct Legal and Financial Costs

C.7.1. Anecdotal Evidence. Court cases intended to hold multinational mining companies legally accountable for human rights violations abroad are a relatively recent development. However, it is too early to identify this as an international trend, as there are significant obstacles remaining. Below, we discuss human rights legislation in key headquarters regions and countries for the mining corporations included in our sample.

- **Asia** The landmark 2020 decision by the Thai Appeal Court to allow a case against Mitr Phol, Asia's largest sugar producer paved the way for Asia's first transboundary class action on human rights abuses (*Forum Asia*, 31 July 2020).
- **Australia** Australia established the Australian National Contact Point (ANCP) in 2002 to promote the UN Human Rights Guidelines and handle specific complaints. However, an independent review commissioned by the Australian Treasury in 2017 found that the ANCP was underperforming and ranked among the weakest-performing NCPs globally. While reforms since the review have improved its efficiency, the ANCP only accepted a its first complaint in 2020/21 regarding potential human rights violations by Rio Tinto at its Panguna mine in Papua New Guinea (Booth and Wilde-Ramsing 2021).
- **Canada** In 2019, Canadian mining company Tahoe Resources Inc. admitted to "infringing the human rights" of protesters after security guards opened fire on April 27, 2013, to disperse a protest (*The Conversation*, 15 August 2019). This was a landmark case; the Canadian Supreme Court had previously declined to hear similar cases (*The Guardian*, 28 February 2020).
- **United Kingdom** In 2019, the UK Supreme Court ruled that Vedanta Resources could potentially be held liable for the actions of its Zambian subsidiary, KCM, because claimants faced "serious obstacles" in seeking justice within their domestic jurisdictions (*Morrison & Foerster*, 8 June 2020). However, between 2012 and 2022, only 17 civil cases (and no criminal cases) were brought against UK companies for human rights violations abroad. Of these, only six were settled and eight remained ongoing Percival et al. (2022). The remainder was dismissed such as the case against UK-based African Mine Ltd. for alleged excessive force by Sierra Leonean police at its Tonkolili iron ore mine (*Morrison & Foerster*, 8 June 2020).
- **United States** Ruggie (2018, p. 320) documented that "for nearly two decades, the US Alien Tort Statute(ATS) was also an exception, providing a means for foreign plaintiffs to bring suit in federal courts for egregious human rights abuses committed abroad. A California district court first agreed to extend it to corporations in 1997 (Joseph, 2004). More than 150 such cases were subsequently brought. The net result? The only case

to go to a jury trial was won by the corporation. Two were settled for modest sums (the ATS is a civil statute, resulting in payment for damages if successful). The rest were dismissed on various procedural grounds."

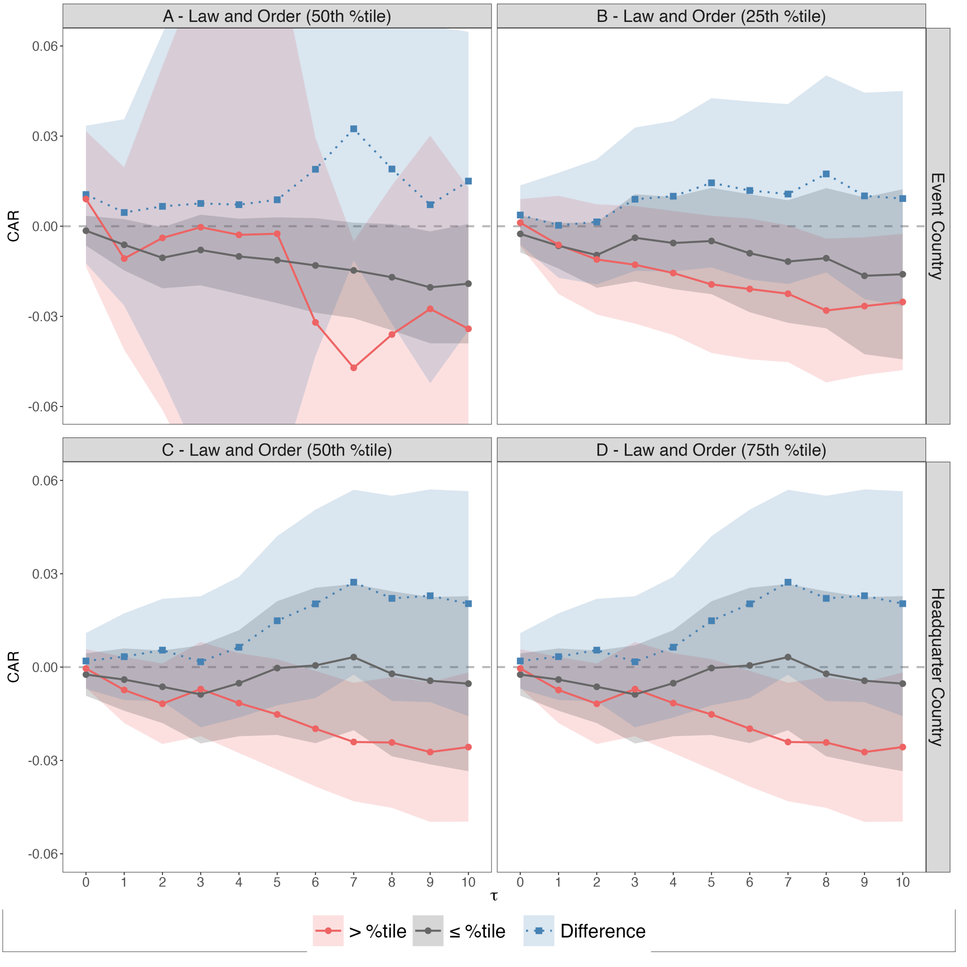


FIGURE C.18. Influence of Legal Institutions in Event and Headquarter Countries. Red and black solid lines as well as dots denote the heterogeneous marginal treatment effects of assassination events on cumulative abnormal returns (CAR). The estimated (absolute) difference in treatment effects is represented by the dotted line with squares. The horizontal axis label denotes the trading days relative to the event day $\tau = 0$. We interact the treatment indicator D in our baseline specification 5 with a binary indicator for the following: (a) above-median ICRG Law and Order score in the event country; (b) above-median ICRG Law and Order score in the corporation's headquarters (HQ) country; (c) below the 25th percentile ICRG Law and Order score in the event country; (d) above the 75th percentile ICRG Law and Order score in the HQ country; 95% confidence intervals using robust standard errors clustered at the event level are displayed.

C.8. Mechanisms: Local Opposition to Mining Projects

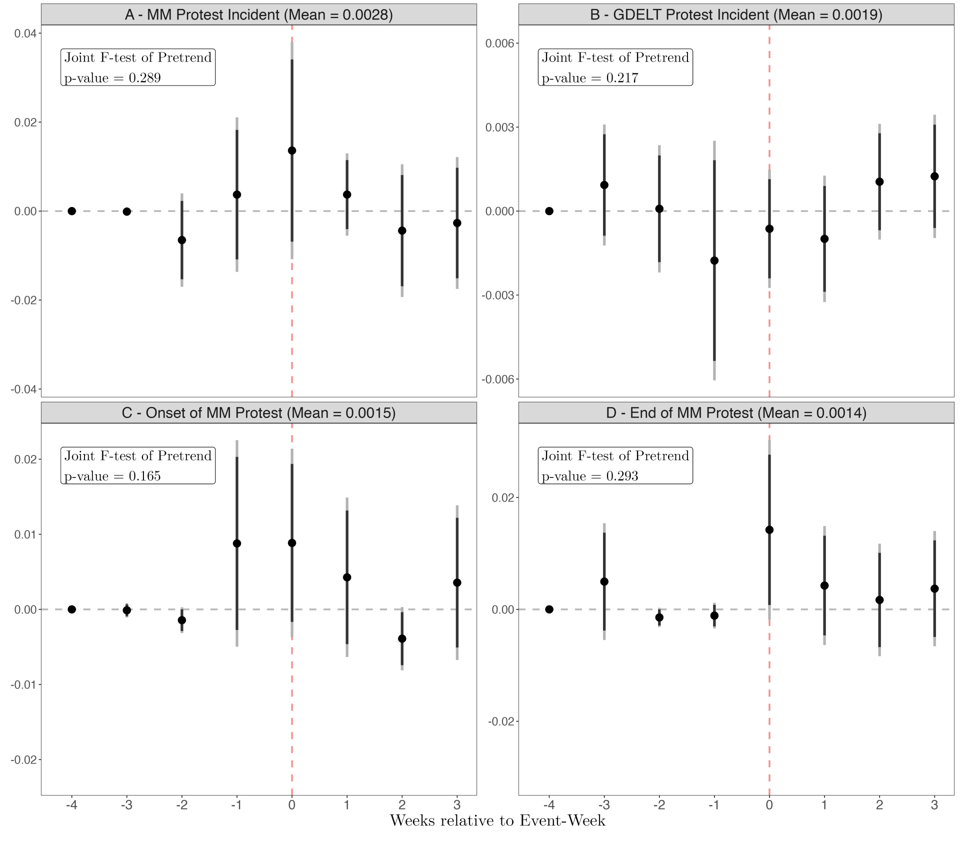


Figure C.19. The Effect of Assassination Events on Protests. Panel A presents the effect of assassinations on the incidence probability of protest in the Admin1 region of the event for two databases: *(i)* Mass Mobilization Data Project (MM) and *(ii)* GDELT. Panel B uses information from MM on protest start and end dates and depicts the effect of assassinations on the probability of conflict onset or ending. The horizontal axis label denotes the weeks before and after the event on $\tau = 0$; 90% and 95% confidence intervals using robust standard errors clustered at the Admin1 level are depicted in black and gray, respectively.

C.9. Persistence: Assassinations and the Political Economy of Local Rents

Table C.11. EITI Tax Revenue Data

Country	# Years	Obs.	Mean	SD	Min	Max	# Events
Colombia	5	45	11.1	11.0	0.0143532	33.77667	5
Ghana	13	138	9.4	11.7	0.0020964	49.26675	0
Guatemala	2	23	8.7	27.8	0.0006380	99.00978	3
Honduras	3	15	20.0	20.2	0.6181142	51.55908	0
Mozambique	7	213	3.3	11.4	0.0000925	93.11438	0
Papua New Guinea	5	40	12.5	18.2	0.0035263	62.90951	1
Peru	13	331	3.9	8.0	0.0000934	78.63809	28
Philippines	5	144	3.5	6.6	0.0000033	43.79049	7
Sierra Leone	11	132	8.3	10.3	0.0570093	46.70731	1

Notes: "# Events" denotes the number of assassination events in a year that could be matched to an EITI tax record of either a private or publicly-traded mining company.

Table C.12. Robustness — Probit Estimates

	Dep. Var.: Assassination			
	(1)	(2)	(3)	(4)
Tax Share	0.104**	0.206**	0.228**	0.411**
	(0.045)	(0.083)	(0.107)	(0.175)
Country FE		✓	✓	
Year FE			✓	
Country × Year FE				✓
Observations	1081	715	640	416

Notes: *Assassination* equals 1 if a mining firm was associated with an assassination event in a given year, and 0 otherwise. The *Tax Share* is defined as the amount of taxes and royalties paid by a corporation to a country's government divided by the total goverment revenue the mining industry. *Marginal effects* are reported. Robust standard errors clustered at the company-country level are in parentheses: * p<0.1, ** p<0.05, *** p<0.01.

TABLE C.13. Robustness — Change in Tax Revenue Shares

	Dep. Var.: Δ Tax Share			
	(1)	(2)	(3)	(4)
Assassination	0.012 (0.031)	0.011 (0.033)	0.012 (0.032)	0.013 (0.033)
Country FE		✓	✓	
Year FE			✓	
Country × Year FE				✓
Observations	784	784	784	784

Notes: *Assassination* equals 1 if a mining firm was associated with an assassination event in a given year, and 0 otherwise. The *Tax Share* is defined as the amount of taxes and royalties paid by a corporation to a country's government divided by the total goverment revenue the mining industry. Δ *Tax Share* is the first difference of the *Tax Share*. Robust standard errors clustered at the company-country level are in parentheses: * p<0.1, ** p<0.05, *** p<0.01.

References

Acemoglu, Daron, Simon Johnson, Amir Kermani, James Kwak, and Todd Mitton (2016). "The value of connections in turbulent times: Evidence from the United States." *Journal of Financial Economics*, 121(2), 368–391.

Boehmer, Ekkehart, Jim Masumeci, and Annette B Poulsen (1991). "Event-study methodology under conditions of event-induced variance." *Journal of Financial Economics*, 30(2), 253–272.

Booth, K. and J. Wilde-Ramsing (2021). "Holding governments accountable for their duty to protect human rights: The Australian National Contact Point and the road to functional equivalence." Nova Centre on Business, Human Rights and the Environment Blog, 12th October 2021, URL https://www.humanrights.unsw.edu.au/research/commentary/holding-governments-accountable-human-rights-ncp.

Business and Human Rights Clinic (2018). "Pension funds and human rights: A study of human rights considerations of pension funds." Tech. rep., New York City, NY.

Clark, David and Regan, Patrick (2016). "Mass Mobillization Data project protests against governments, all countries, 1990-2020." https://dataverse.harvard.edu/dataverse/MMdata https://doi.org/10.7910/DVN/HTTWYL, Binghamton University.

Doyle, Cathal and Andrew Whitmore (2014). *Indigenous peoples and the extractive sector: Towards a rights respecting engagement*. Baguio: Tebtebba, PIPLinks and Middlesex University.

Dyck, Alexander, Karl V Lins, Lukas Roth, and Hannes F Wagner (2019). "Do institutional investors drive corporate social responsibility? International evidence." *Journal of Financial Economics*, 131(3), 693–714.

Efron, Bradley and Robert Tibshirani (1994). *An introduction to the bootstrap*. Monographs on statistics and applied probability ; 57, Chapman Hall/CRC, Boca Raton, Florida.

Eisensee, Thomas and David Strömberg (2007). "News droughts, news floods, and U. S. disaster relief." *Quarterly Journal of Economics*, 122(2), 693–728.

Goldfarb, Donald and Ashok Idnani (1982). *Dual and primal-dual methods for solving strictly convex quadratic programs*. In J. P. Hennart (ed.), Numerical Analysis, Springer-Verlag, Berlin, pages 226-239.

Goldfarb, Donald and Ashok Idnani (1983). "A numerically stable dual method for solving strictly convex quadratic programs." *Mathematical Programming*, 27(1), 1–33.

Hamm, Brigitte, Anne Schax, and Christian Scheper (2013). "Human rights impact assessment of the Tampakan copper-gold project." *Mindanao, Philippines, Aachen/Luzern: Bischöfliches Hilfswerk MISEREOR eV & Fastenopfer.*

Higham, Nicholas J. (1988). "Computing a nearest symmetric positive semidefinite matrix." *Linear Algebra and its Applications*, 103, 103–118.

Holden, William N and R Daniel Jacobson (2012). *Mining and natural hazard vulnerability in the Philippines: Digging to development or digging to disaster?* Anthem Press.

Imai, Shin, Leah Gardner, and Sarah Weinberger (2017). "The 'Canada Brand': Violence and Canadian mining companies in Latin America." *Osgoode Legal Studies Research Paper*, (17).

Keith, Katherine A, Abram Handler, Michael Pinkham, Cara Magliozzi, Joshua McDuffie, and Brendan O'Connor (2017). "Identifying civilians killed by police with distantly supervised entity-event extraction." *arXiv preprint arXiv:1707.07086.*

Kolari, James W and Seppo Pynnönen (2010). "Event study testing with cross-sectional correlation of abnormal returns." *Review of Financial Studies*, 23(11), 3996–4025.

Kolari, James W and Seppo Pynnönen (2011). "Nonparametric rank tests for event studies." *Journal of Empirical Finance*, 18(5), 953–971.

Liu, Licheng, Ye Wang, and Yiqing Xu (2024). "A practical guide to counterfactual estimators for causal inference with time-series cross-sectional data." *American Journal of Political Science*, 68(1), 160–176.

MacKinlay, A Craig (1997). "Event studies in economics and finance." *Journal of Economic Literature*, 35(1), 13–39.

Percival, Y., R. Chambers, L. Boughey, and Downer K. (2022). "People Centered Trade - Foreign Investment, Human Rights and the Climate in the UK: Asymmetric Legal Protection." Transform Trade, Charity No. 1048752, URL https://www.transform-trade.org/pct-report.

Ruggie, John Gerard (2018). "Multinationals as global institution: Power, authority and relative autonomy." *Regulation & Governance*, 12(3), 317–333.

Schrodt, Philip A, Deborah J Gerner, and Omür Yilmaz (2009). *Conflict and mediation event observations (CAMEO): An event data framework for a post Cold War world*. Routledge, New York.

Spohr, Maximilian (2016). *Human rights risks in mining: A baseline study*. MPFPR, Bundesanstalt für Geowissenschaften und Rohstoffe (BGR).

Xu, Yiqing (2017). "Generalized synthetic control method: Causal inference with Interactive Fixed Effects Models." *Political Analysis*, 25(1), 57–76.