# *Supplementary Appendix:*

# Are regime changes always bad economics? Evidence from daily financial data

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# A   Appendix

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*Public Protests*

The resignations studied in this paper are those in which leaders left office because of poor performance, public discontent and popular protests. It is therefore not unreasonable to expect the political actions preceding the resignations to have similarly large effects on financial markets.[46] To examine this, we explore all resignations that were driven by significant popular demonstrations, riots, non-violent civil resistance and other forms of public discontent (see Table A.1).[47]

**Table A.1: List of public protests preceding resignations**

| Country | Name | Start Date | End Date |
| --- | --- | --- | --- |
| Philippines | EDSA 1/Yellow Revolution | 2/22/1986 | 2/25/1986 |
| Bangladesh | Bangladeshi Spring of 1990 | 11/27/1990 | 12/7/1990 |
| Thailand | Black May | 5/17/1992 | 5/20/1992 |
| Indonesia | Indonesian Riots | 5/12/1998 | 5/21/1998 |
| Philippines | EDSA II | 1/17/2001 | 1/20/2001 |
| Argentina | Argentina Riots | 12/16/2001 | 12/20/2001 |
| Ukraine | Orange Revolution | 11/22/2004 | 1/23/2005 |
| Ecuador | Ecuadorian Protests | 4/13/2005 | 4/20/2005 |
| Nepal | Nepalese People's Revolution | 4/6/2006 | 4/24/2006 |
| Tunisia | Tunisian Revolution | 12/18/2010 | 1/14/2011 |
| Egypt | Egyptian Revolution | 1/25/2011 | 2/11/2001 |

A recent example of a popular uprising preceding a resignation is the 2011 Egyptian Revolution that resulted in the overthrow of President Hosni Mubarak's regime.[48] Clashes between security forces and protestors led to the deaths of hundreds of citizens and injuries to thousands more. The uprising began on January 25, 2011 when millions of protestors demanded the overthrow of the Egyptian leadership. Examples of public discontent included demonstrations, marches, riots, non-violent civil disobedience, and labor strikes.

The short-term impact of the Egyptian Revolution on the economy was disastrous. As

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[46]Indeed, corporate investors in the 2013 MIGA *World Investment and Political Risk* ranked civil disturbances as the fourth most concerning type of political risk.

[47]The set of resignations includes all those listed in either the Coup d'etat Events Handbook or the Archigos Version 4.1 data set with available financial data. In practice, this is the 2011 Egyptian Revolution and the list of resignations in Table 5.

[48]Abnormal returns for this event are not shown in Table 5 because the stock market was closed on the day of Mubarak's resignation.

shown in Figure A.9, abnormal returns on the Egyptian Stock Exchange Index (EGX 30) were around -7% on January 26th and -10% the day after. To prevent further decline during the uprising, the Egyptian Stock Exchange closed at the end of trading on January 27th. President Mubarak resigned on February 11, but the market remained closed until March 23, when CARs declined by another 9%, before rebounding slightly thereafter.
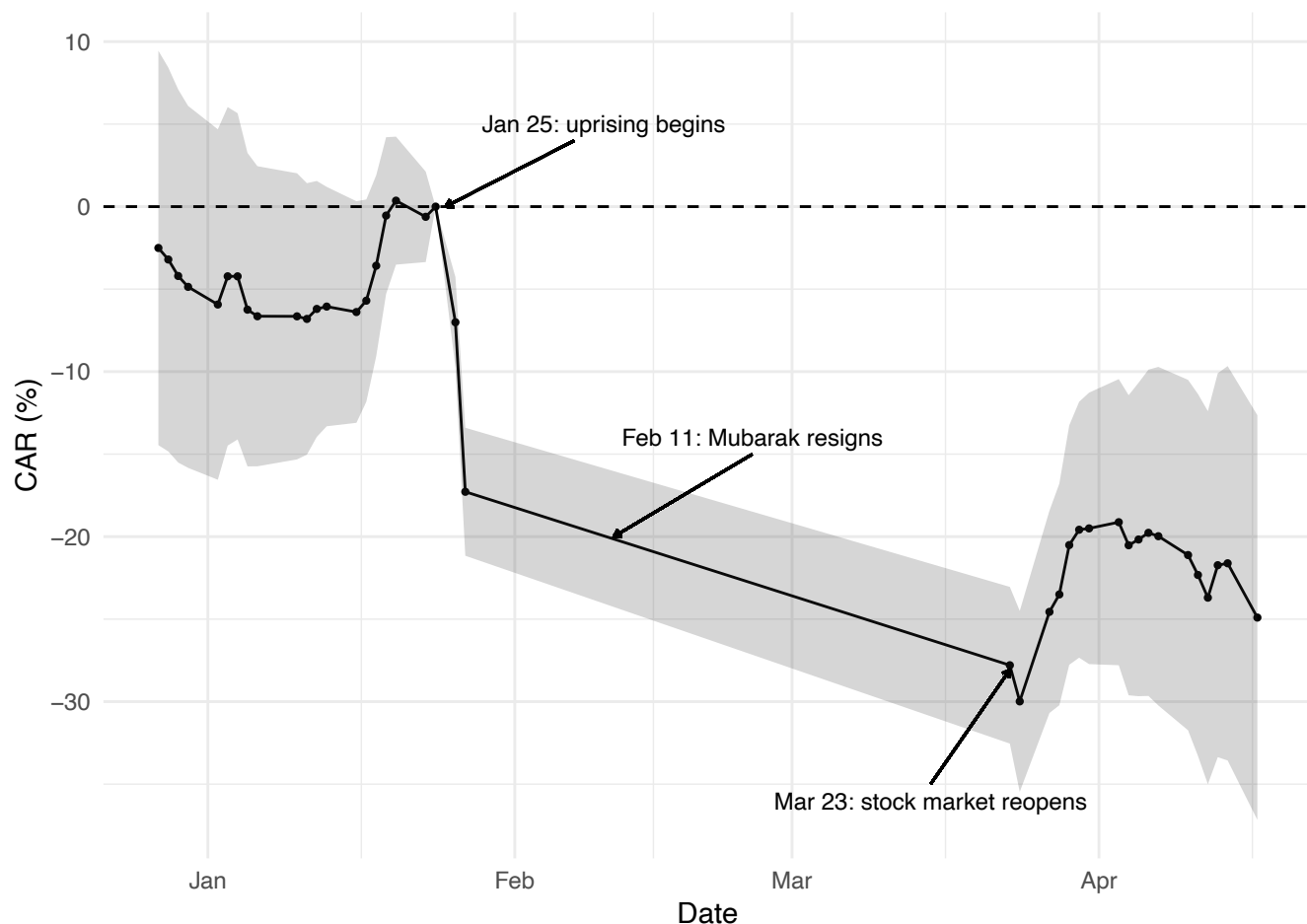


Figure A.1: Cumulative abnormal returns during the Egyptian revolution

An important question is whether other popular uprisings have had similar adverse economic consequences. To examine this, we explore all resignations that were driven by significant public protests.[49] Public protests include popular demonstrations, riots, non-violent civil resistance and other forms of public discontent. We find that both volatility and the

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[49]The set of resignations includes all those listed in either the Coup d'etat Events Handbook or the Archigos Version 4.1 data set with available financial data. In practice, this is the 2011 Egyptian Revolution and the list or resignations in Table 5.

absolute value of returns increase during times of protest. Similarly to coups, however, the direction of returns is dependent upon the nature of the protest in question.

The start and end dates in Table A.2 are the dates that protests began and leader's resigned respectively. Resignations caused by popular uprisings were identified by examining the descriptions in the Coup d'etat Events Handbook and Archigos Version 4.1. Additional Lexis Nexis searches were used to verify these descriptions.

In Table A.2, we examine whether public protests influence stock prices. The variable *Protest* is equal to 1 during the dates in which citizens participate in political activities demanding the resignation of the executive and 0 otherwise. Non-protest dates are the 250 days prior to the start dates and after the end dates listed in Table A.1.[50]

Column (1) suggests that public protests have no effect on stock returns. However, this occurs because some political movements increase stock prices while others decrease them. As shown in column (2), the absolute value of stock returns are approximately 1.5% higher during public protests. These estimates would be biased if protest dates are correlated with higher world or regional stock market indices. To address this potential confounder, column (3) controls for returns on the S&P/IFC Emerging Markets Investable Composite Stock Index. The coefficient on *Protest* barely changes and the absolute value of returns are still about 1.5% higher during public protests. Finally, column (4) shows that stock volatility is approximately 1 percentage point higher during political movements.[51]

We therefore find that both volatility and the absolute value of returns increase during times of protest. Similarly to coups, however, the direction of returns is dependent upon the nature of the protest in question.

In addition, we independently plot the CARs during each period of protest preceding a resignation for each event.[52] This analysis also shows that volatility and the absolute value

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[50]The volatility estimates used as the dependent variable in column (4) are estimated on the 250 days prior to the start date, the protest dates, and the 250 days following the end date.

[51]Volatility estimation methodology is described in detail in Volatility.

[52]An expception is the 1998 Yellow Revolution in the Philippines, as markets remained closed from the start of the protest until after Marcos' resignation

of returns increase during times of protest, but also reveals that the resignations themselves typically constitute distinct events that are clearly distinguishable from the general period of protest.

Table A.2: **Effect of public protests on stock prices**

|  | Returns | Absolute Value of Returns | | Volatility |
|---|---|---|---|---|
|  | (1) | (2) | (3) | (4) |
| Protest | 0.261 | 1.485 | 1.313 | 0.891 |
|  | (0.700) | (0.412) | (0.387) | (0.346) |
| Emerging market index |  |  | 0.075 |  |
|  |  |  | (0.058) |  |
| Event fixed effect? | Yes | Yes | Yes | Yes |
| Observations | 3,537 | 3,537 | 2,676 | 3,537 |
| Events | 11 | 11 | 8 | 11 |

Notes: Standard errors clustered by event are in parentheses.
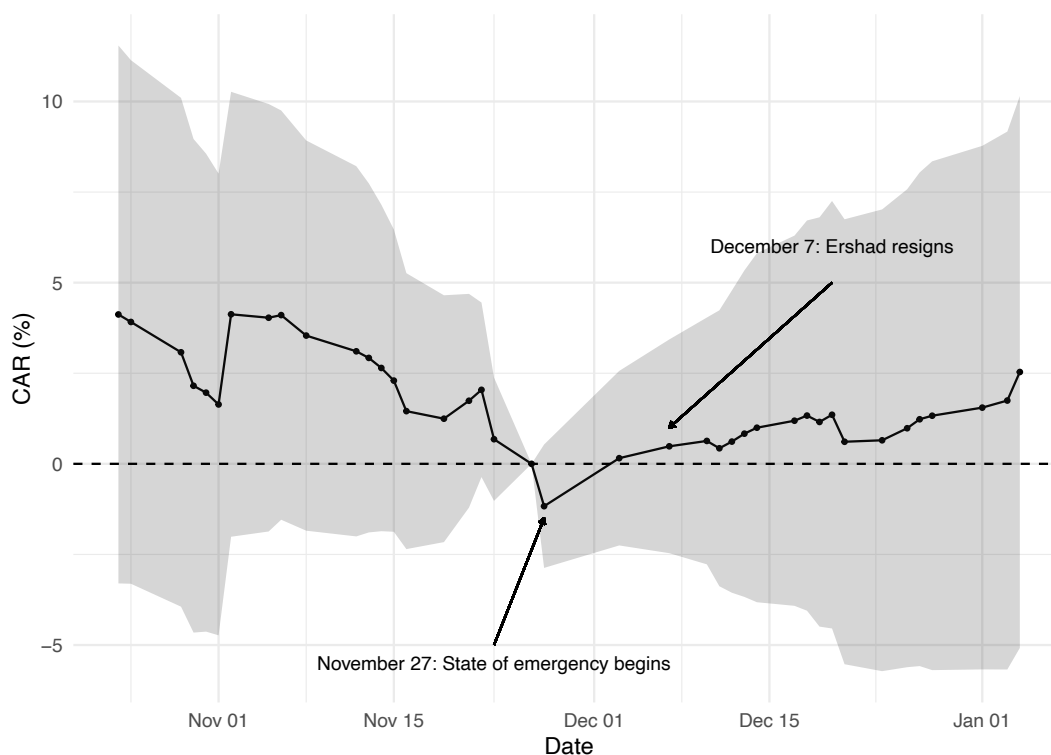


Figure A.2: **CARs during the 1990 Bangladesh uprising**
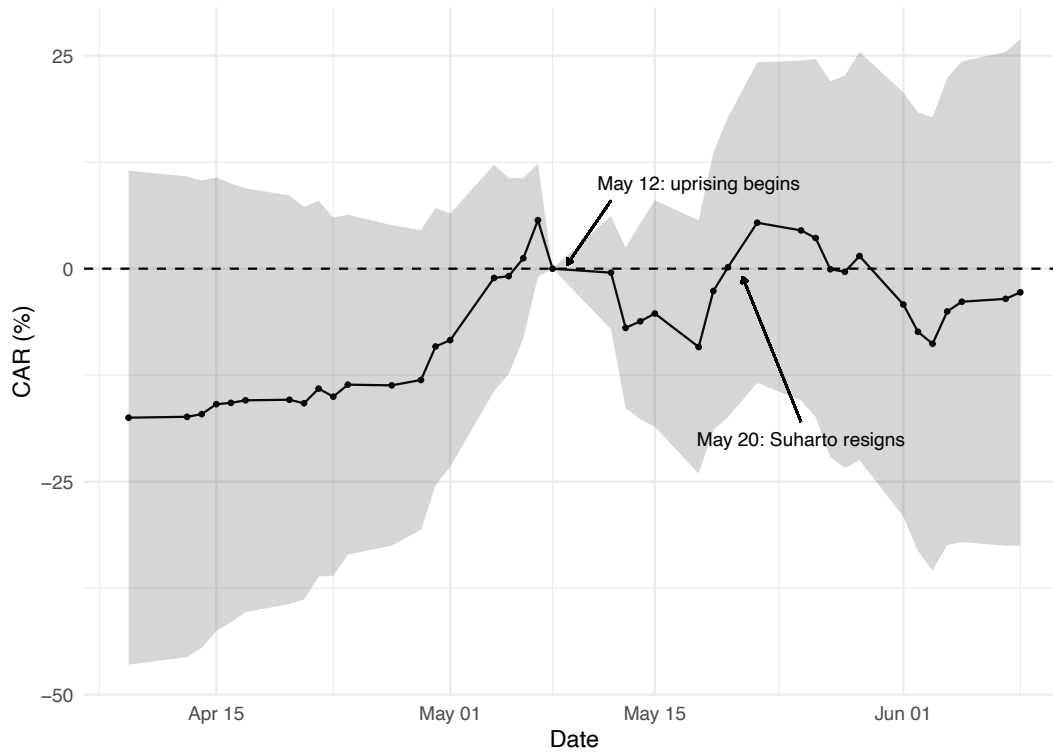
Figure A.3: CARs during the 1998 Indonesian revolution
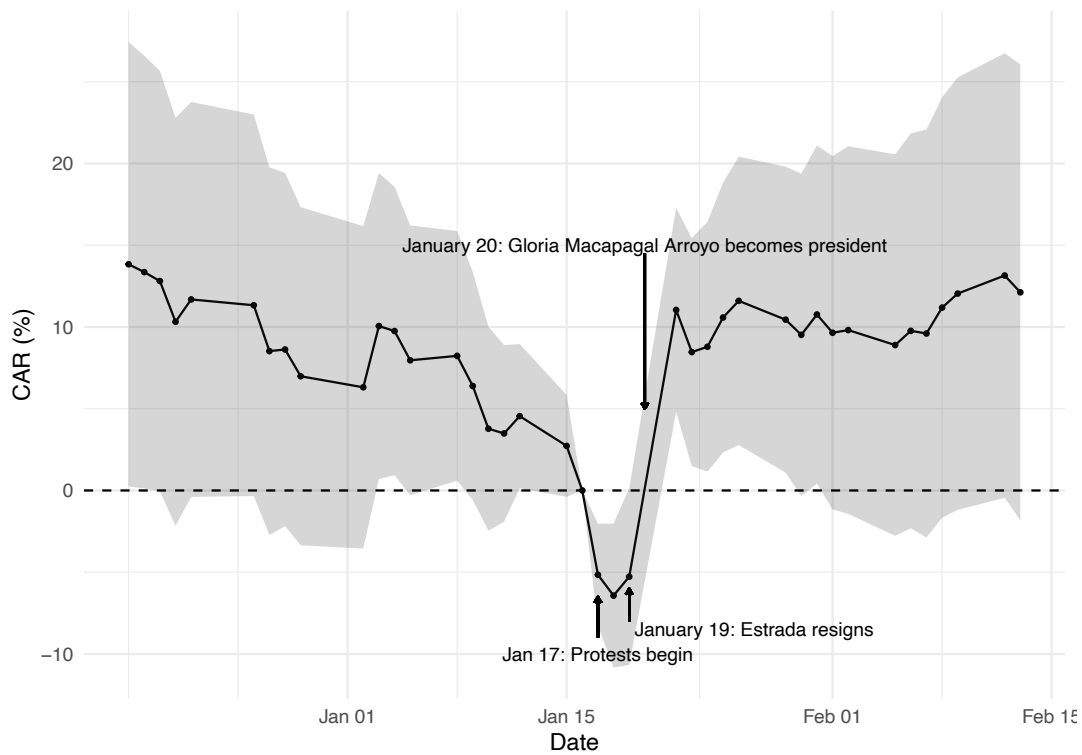

Figure A.4: CARs during the Philippines Second People Power Revolution
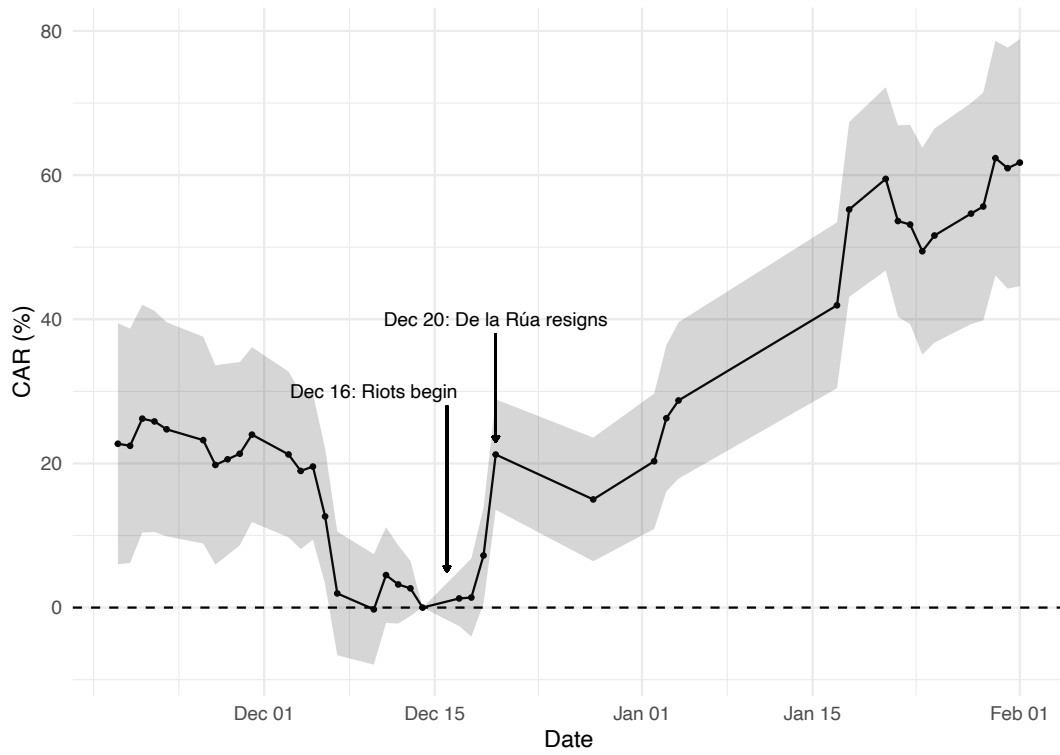
**Figure A.5: CARs during the 2001 Argentine crisis**
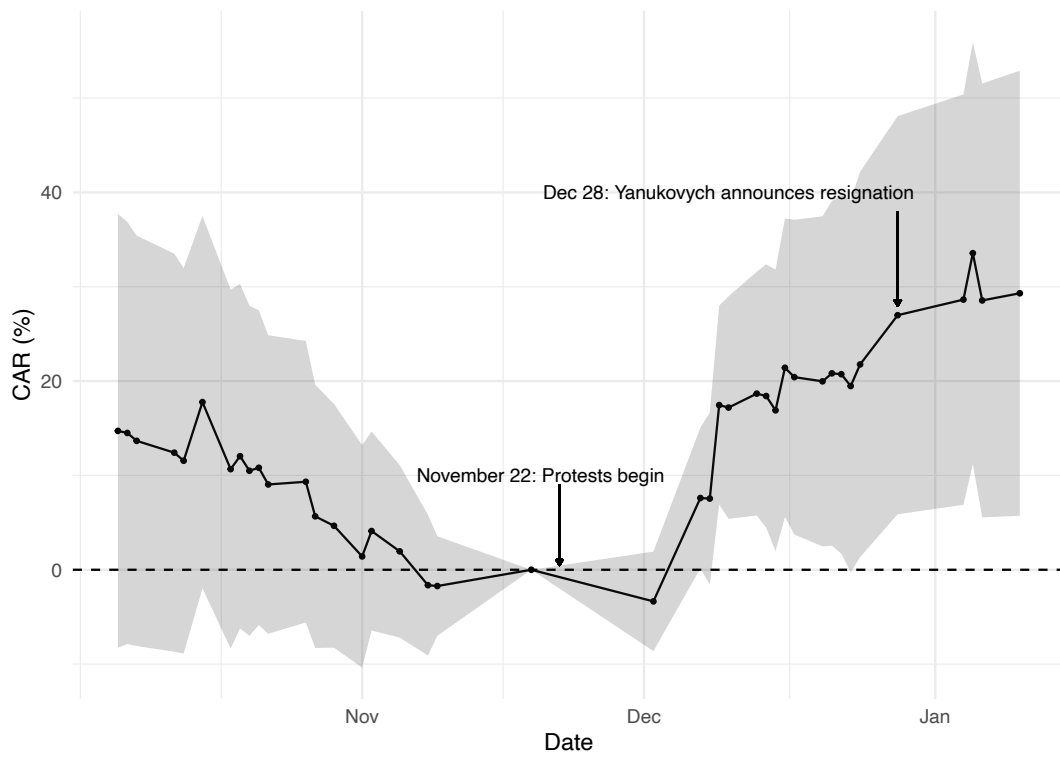


**Figure A.6: CARs during the 2004 Orange Revolution**
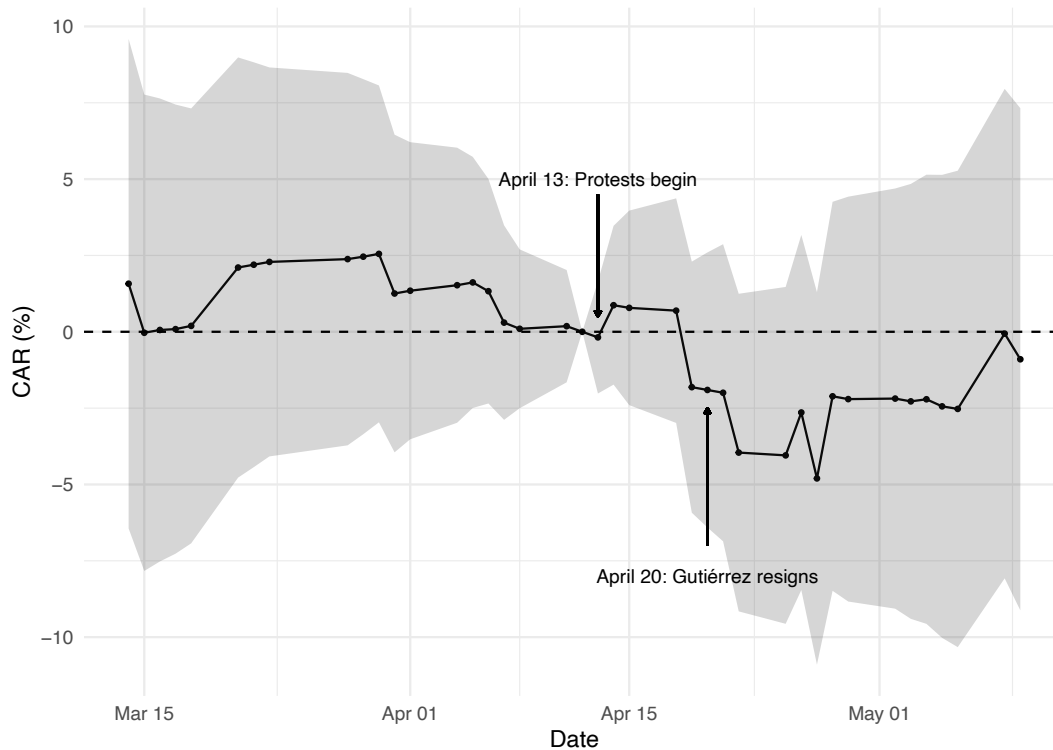
**Figure A.7: CARs during the Ecuadorian Revolution of 2005**
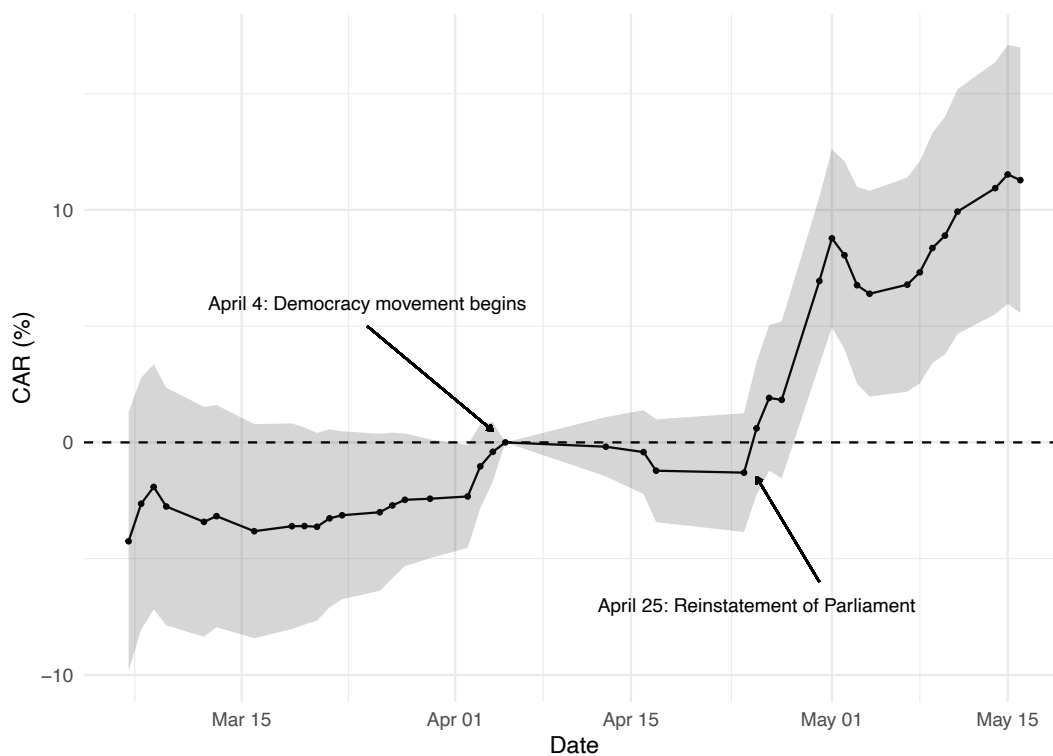


**Figure A.8: CARs during the 2006 Nepalese Democracy Movement**

Figure A.9: CARs during the 2011 Tunisian Revolution

*Additional robustness tests*

**Volatility**



**Figure A.10: Mean of volatility estimates from exponential GARCH models**

Figure A.11: Mean of volatility estimates from threshold GARCH models


Figure A.12: Mean of volatility estimates from FIGARCH models
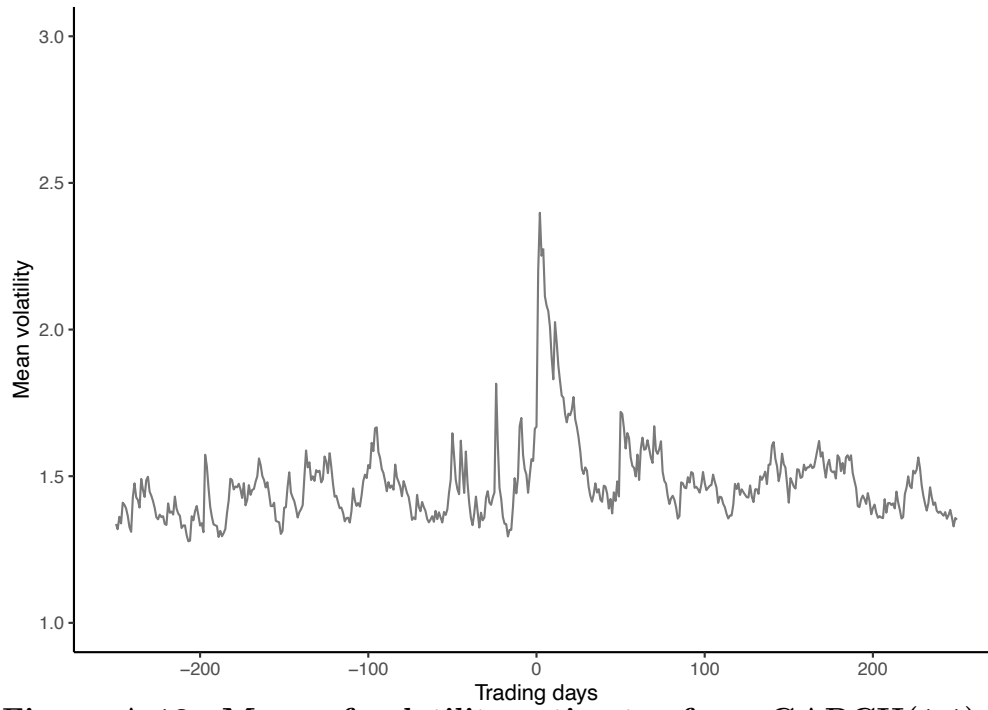
Figure A.13: Mean of volatility estimates from GARCH(1,1) models with adjustment for structural breaks

**Abnormal returns for events with insignificant 7-day pre-trends only**

**Table A.3: Abnormal returns following coups**

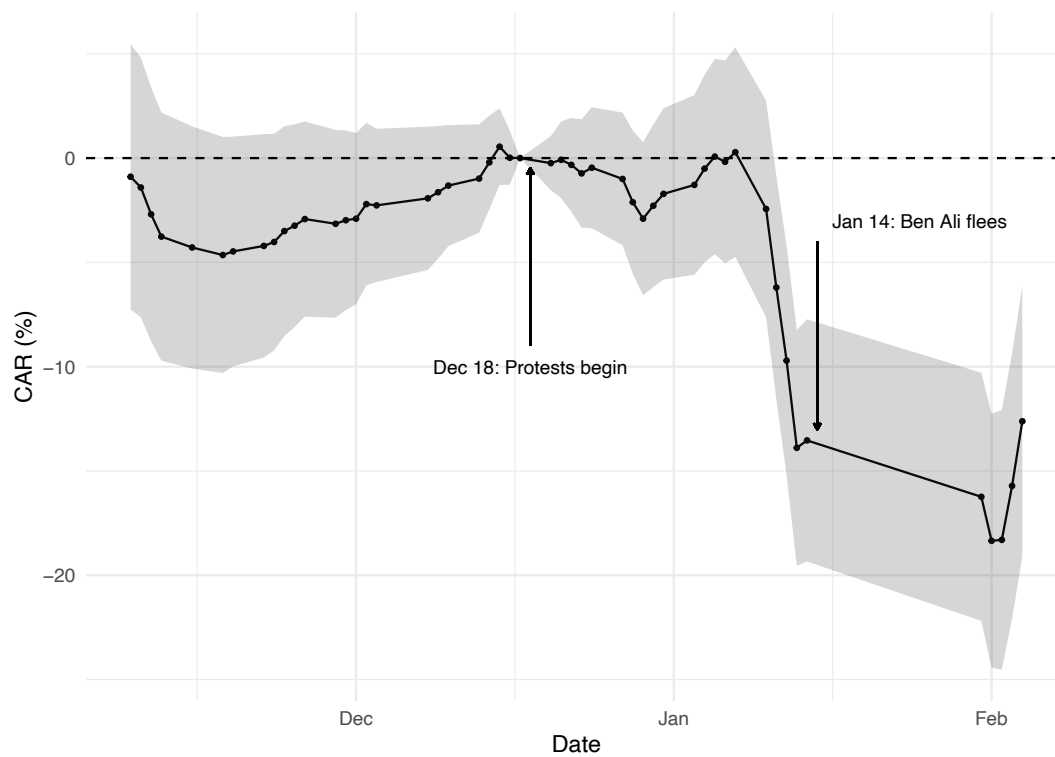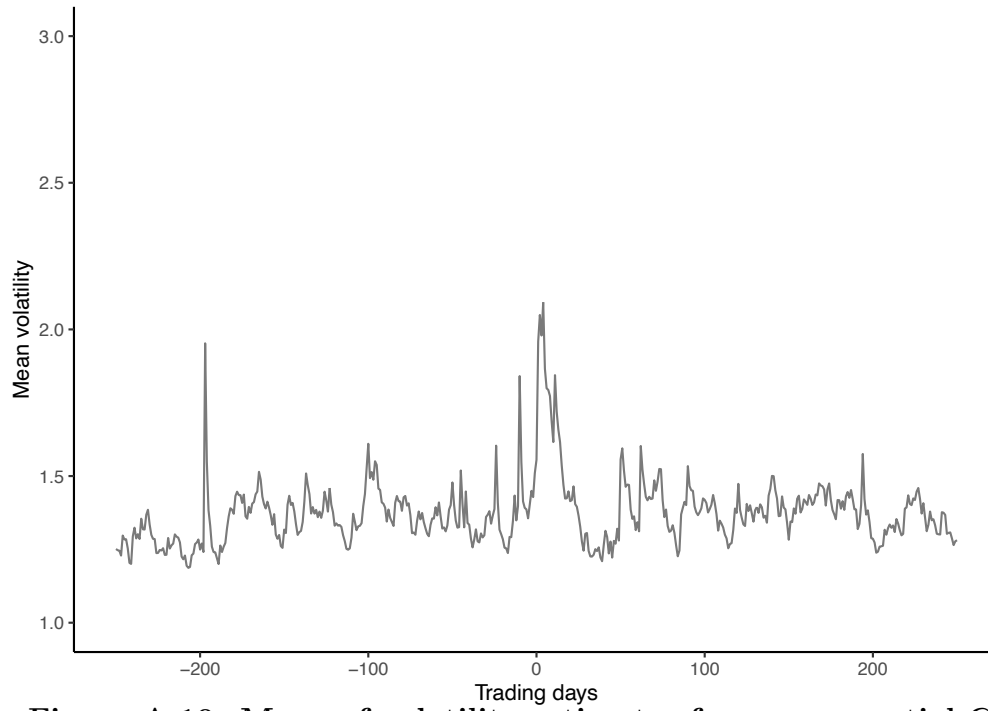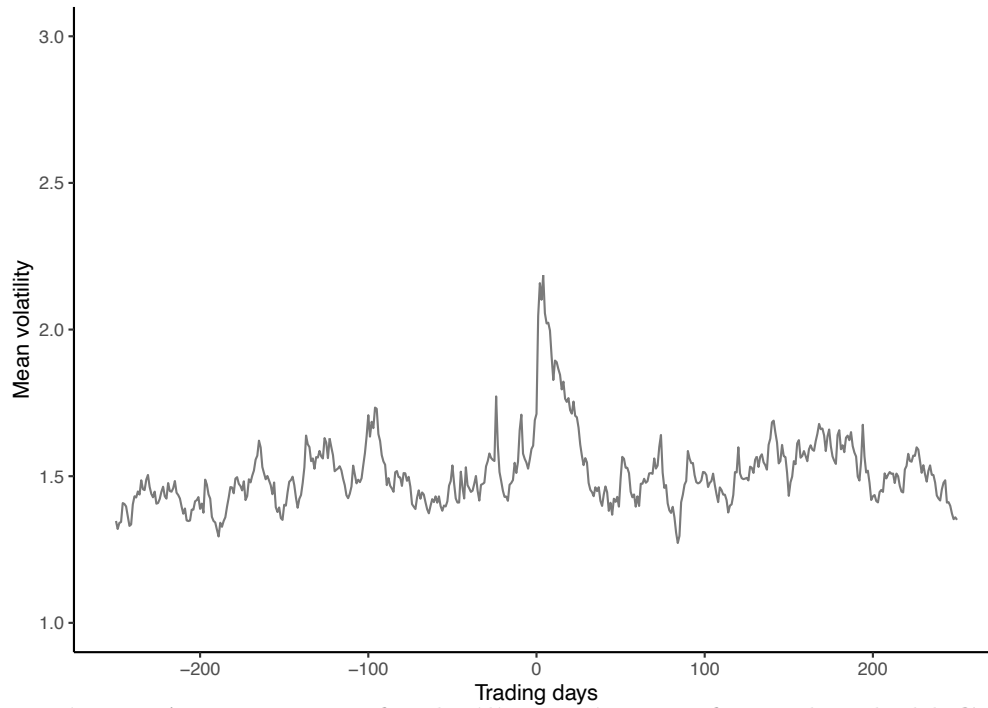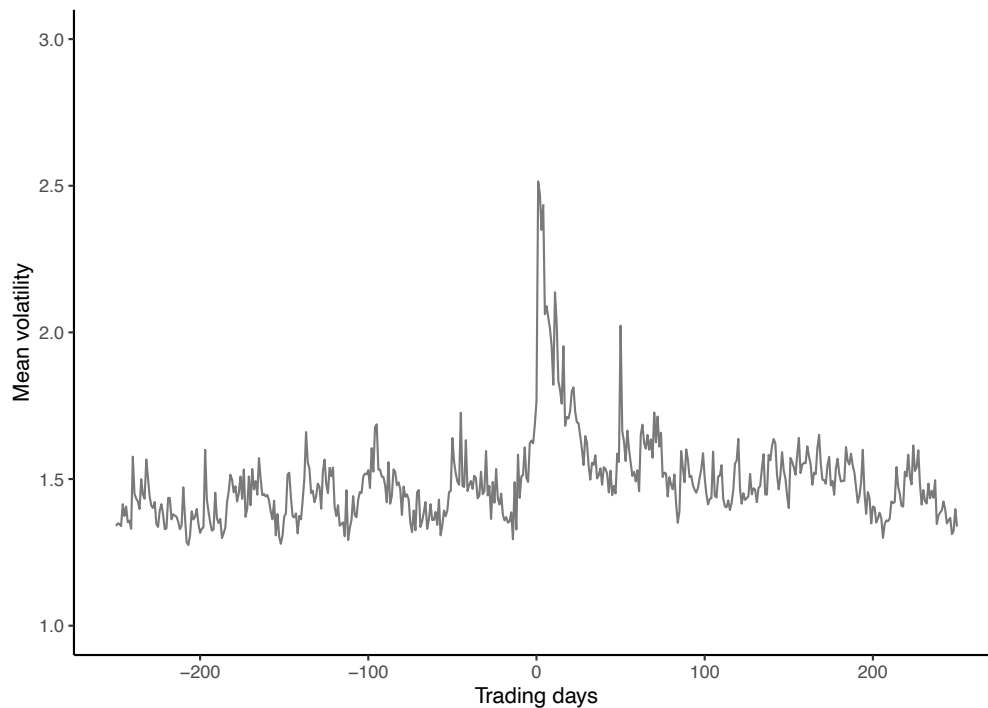| Country | Event Date | Post-Event CAR | | | Pre-Event CAR | | Days to rebound |
|---|---|---|---|---|---|---|---|
| | | (0,0) | (0,6) | (0,19) | (-1,-7) | (-1,-20) | |
| Argentina | 06/08/1970 | −1.919 | −0.530 | −2.011 | 0.247 | 4.728 | 204 |
| | | (0.949) | (2.510) | (4.243) | (2.510) | (4.243) | |
| Argentina | 03/22/1971 | 0.925 | 14.294 | 24.218 | 0.131 | 0.274 | |
| | | (1.216) | (3.218) | (5.439) | (3.218) | (5.439) | |
| Bangladesh | 01/11/2007 | −0.320 | 10.351 | 14.883 | −0.896 | 2.250 | 2 |
| | | (1.166) | (3.086) | (5.217) | (3.086) | (5.217) | |
| Egypt | 07/03/2013 | −0.346 | 5.169 | 7.144 | 6.776 | −4.869 | 2 |
| | | (1.515) | (4.009) | (6.776) | (4.009) | (6.776) | |
| Nepal | 10/04/2002 | 0.090 | 1.563 | 5.567 | −1.014 | −0.493 | 2 |
| | | (1.206) | (3.190) | (5.392) | (3.190) | (5.392) | |
| Pakistan | 10/14/1999 | −7.737 | −9.431 | −7.130 | 4.151 | 4.900 | 36 |
| | | (1.943) | (5.141) | (8.690) | (5.141) | (8.690) | |
| Peru | 04/06/1992 | −6.819 | −5.814 | −25.027 | −2.075 | −10.519 | 5 |
| | | (2.210) | (5.848) | (9.885) | (5.848) | (9.885) | |
| South Korea | 12/12/1979 | −1.784 | −3.474 | −24.465 | −1.678 | −6.187 | 418 |
| | | (1.152) | (3.047) | (5.150) | (3.047) | (5.150) | |
| Thailand | 10/06/1976 | −0.541 | 0.837 | 0.731 | 0.001 | 0.713 | 3 |
| | | (0.639) | (1.691) | (2.859) | (1.691) | (2.859) | |
| Thailand | 02/25/1991 | −7.326 | 2.860 | 14.162 | 6.326 | 26.262 | 7 |
| | | (2.884) | (7.631) | (12.899) | (7.631) | (12.899) | |
| Thailand | 09/19/2006 | −0.481 | −2.640 | 0.111 | 1.848 | 0.131 | 17 |
| | | (1.094) | (2.894) | (4.892) | (2.894) | (4.892) | |
| Thailand | 05/23/2014 | −0.571 | 2.800 | 4.591 | 2.350 | −0.424 | 5 |
| | | (1.201) | (3.177) | (5.370) | (3.177) | (5.370) | |
| **Mean** | | −2.236 | 1.332 | 1.064 | 1.347 | 1.397 | 63 |
| | | (0.448) | (1.184) | (2.001) | (1.184) | (2.001) | |

Notes: Standard errors are in parentheses. "Days to rebound" is the number of trading days following a negative stock return for the national stock index to return to pre-event level (it is calculated if the price decreases on the event day, not if the event day abnormal return is negative). Returns are inflation adjusted.

## Table A.4: Abnormal returns following assassinations

| Country | Event Date | Post-Event CAR | | | Pre-Event CAR | | Days to rebound |
|---------|-----------|---------|---------|---------|---------|---------|---------|
| | | (0,0) | (0,6) | (0,19) | (-1,-7) | (-1,-20) | |
| Israel | 11/05/1995 | −3.460 | −3.177 | 0.743 | −0.857 | −10.316 | 12 |
| | | (1.473) | (3.897) | (6.587) | (3.897) | (6.587) | |
| Nepal | 06/12/2001 | −0.513 | 2.965 | 15.516 | 5.956 | 1.791 | 20 |
| | | (3.513) | (9.295) | (15.711) | (9.295) | (15.711) | |
| South Korea | 10/26/1979 | −0.364 | −9.376 | 1.186 | 0.690 | −0.368 | 14 |
| | | (1.058) | (2.800) | (4.734) | (2.800) | (4.734) | |
| Sri Lanka | 05/03/1993 | −3.231 | −0.983 | 3.515 | −0.541 | −1.360 | 7 |
| | | (0.767) | (2.030) | (3.432) | (2.030) | (3.432) | |
| Sweden | 03/03/1986 | 0.698 | 5.038 | 10.908 | −3.754 | 0.955 | |
| | | (0.927) | (2.452) | (4.145) | (2.452) | (4.145) | |
| United States | 09/07/1901 | −4.522 | −3.055 | −8.920 | −0.733 | 3.456 | 963 |
| | | (1.283) | (3.394) | (5.738) | (3.394) | (5.738) | |
| **Mean** | | −1.899 | −1.431 | 3.825 | 0.127 | −0.974 | 203 |
| | | (0.721) | (1.908) | (3.225) | (1.908) | (3.225) | |

Notes: Standard errors are in parentheses. "Days to rebound" is the number of trading days following a negative stock return for the national stock index to return to pre-event level (it is calculated if the price decreases on the event day, not if the event day abnormal return is negative). Returns are inflation adjusted.

## Table A.5: Abnormal returns following resignations

| Country | Event Date | Post-Event CAR | | | Pre-Event CAR | | Days to |
|---|---|---|---|---|---|---|---|
| | | (0,0) | (0,6) | (0,19) | (-1,-7) | (-1,-20) | rebound |
| Bangladesh | 12/07/1990 | 0.323 | 1.002 | 2.171 | 1.880 | 3.654 | |
| | | (0.871) | (2.305) | (3.896) | (2.305) | (3.896) | |
| Ecuador | 04/20/2005 | −0.084 | −0.249 | −0.595 | −1.305 | 0.710 | |
| | | (0.945) | (2.499) | (4.225) | (2.499) | (4.225) | |
| Indonesia | 05/20/1998 | 2.817 | 4.296 | 4.543 | −2.695 | −17.868 | |
| | | (3.392) | (8.974) | (15.168) | (8.974) | (15.168) | |
| Lithuania | 04/06/2004 | −0.575 | −3.319 | −11.704 | 2.182 | 5.426 | 159 |
| | | (1.137) | (3.007) | (5.083) | (3.007) | (5.083) | |
| Nepal | 04/25/2006 | 1.915 | 8.132 | 9.937 | −1.951 | −4.205 | |
| | | (0.665) | (1.760) | (2.975) | (1.760) | (2.975) | |
| Pakistan | 04/19/1993 | −3.265 | −0.432 | 2.771 | −0.312 | −0.485 | 15 |
| | | (1.108) | (2.930) | (4.953) | (2.930) | (4.953) | |
| Pakistan | 11/06/1996 | 5.084 | 1.229 | −0.441 | 4.182 | 7.597 | |
| | | (1.416) | (3.746) | (6.331) | (3.746) | (6.331) | |
| Philippines | 02/26/1986 | 12.938 | 21.473 | 23.086 | −1.847 | −6.884 | |
| | | (0.477) | (1.263) | (2.134) | (1.263) | (2.134) | |
| Philippines | 01/19/2001 | 1.150 | 16.837 | 18.469 | −5.382 | 3.581 | |
| | | (1.591) | (4.209) | (7.115) | (4.209) | (7.115) | |
| Thailand | 05/25/1992 | 3.248 | −6.574 | 3.789 | −5.085 | −10.841 | |
| | | (1.433) | (3.793) | (6.411) | (3.793) | (6.411) | |
| Turkey | 06/30/1997 | 2.010 | −2.861 | −7.629 | 12.876 | 4.532 | |
| | | (3.015) | (7.976) | (13.481) | (7.976) | (13.481) | |
| Ukraine | 12/28/2004 | 5.118 | 12.837 | 18.445 | 4.170 | 32.085 | |
| | | (2.797) | (7.401) | (12.511) | (7.401) | (12.511) | |
| **Mean** | | 2.557 | 4.364 | 5.237 | 0.560 | 1.442 | 87 |
| | | (0.526) | (1.392) | (2.353) | (1.392) | (2.353) | |

Notes: Standard errors are in parentheses. "Days to rebound" is the number of trading days following a negative stock return for the national stock index to return to pre-event level (it is calculated if the price decreases on the event day, not if the event day abnormal return is negative). Returns are inflation adjusted.

**Abnormal returns for failed coups**

## Table A.6: Abnormal returns following failed coups

| Country | Event Date | Post-Event CAR | | | Pre-Event CAR | | Days to |
|---|---|---|---|---|---|---|---|
| | | (0,0) | (0,6) | (0,19) | (-1,-7) | (-1,-20) | rebound |
| Argentina | 10/11/1971 | 1.338 | −0.856 | 2.940 | −3.264 | −14.747 | |
| | | (1.680) | (4.446) | (7.515) | (4.446) | (7.515) | |
| Argentina | 12/19/1975 | 0.924 | 1.402 | 14.276 | 5.685 | −3.607 | |
| | | (4.145) | (10.966) | (18.535) | (10.966) | (18.535) | |
| Bangladesh | 05/20/1996 | 1.128 | 0.497 | 8.563 | 6.460 | 11.479 | |
| | | (0.853) | (2.258) | (3.816) | (2.258) | (3.816) | |
| Ecuador | 01/21/2000 | 0.341 | 2.309 | 6.146 | 2.272 | 3.899 | |
| | | (2.313) | (6.119) | (10.344) | (6.119) | (10.344) | |
| Paraguay | 04/22/1996 | −0.203 | −2.700 | −3.674 | 0.454 | 18.218 | 42 |
| | | (0.624) | (1.652) | (2.792) | (1.652) | (2.792) | |
| Paraguay | 05/19/2000 | 0.066 | 1.022 | 2.482 | 0.464 | 0.870 | |
| | | (0.626) | (1.656) | (2.799) | (1.656) | (2.799) | |
| Peru | 11/13/1992 | −0.120 | 14.284 | 24.952 | −1.281 | 11.293 | 3 |
| | | (2.752) | (7.281) | (12.307) | (7.281) | (12.307) | |
| Peru | 10/30/2000 | 0.213 | 0.044 | −0.496 | 0.239 | −4.339 | |
| | | (1.097) | (2.903) | (4.906) | (2.903) | (4.906) | |
| Philippines | 07/07/1986 | −3.470 | 11.894 | 0.034 | 10.826 | 17.907 | 2 |
| | | (1.587) | (4.198) | (7.095) | (4.198) | (7.095) | |
| Philippines | 01/27/1987 | 5.634 | 10.651 | 0.545 | −7.358 | −1.492 | |
| | | (2.214) | (5.858) | (9.902) | (5.858) | (9.902) | |
| Philippines | 04/18/1987 | −0.174 | 1.540 | −0.724 | 1.924 | 7.054 | |
| | | (2.501) | (6.617) | (11.184) | (6.617) | (11.184) | |
| Philippines | 08/27/1987 | 4.179 | −21.536 | −44.069 | −14.846 | −12.858 | |
| | | (2.739) | (7.245) | (12.247) | (7.245) | (12.247) | |
| Philippines | 12/11/1989 | −11.089 | −31.340 | −21.375 | −5.954 | −1.390 | 526 |
| | | (1.531) | (4.049) | (6.845) | (4.049) | (6.845) | |
| Philippines | 10/04/1990 | −5.978 | 0.614 | 14.891 | −10.494 | −25.502 | 3 |
| | | (2.010) | (5.319) | (8.991) | (5.319) | (8.991) | |
| Philippines | 07/28/2003 | −2.169 | −5.807 | −2.766 | 0.775 | 2.860 | 31 |
| | | (1.129) | (2.986) | (5.048) | (2.986) | (5.048) | |
| Philippines | 11/29/2007 | 1.100 | 2.605 | −1.040 | −3.489 | −8.759 | |
| | | (1.795) | (4.750) | (8.029) | (4.750) | (8.029) | |
| Spain | 02/24/1981 | −0.221 | −2.653 | −0.572 | 1.537 | 8.807 | 2 |
| | | (0.562) | (1.488) | (2.515) | (1.488) | (2.515) | |
| Thailand | 03/28/1977 | 0.575 | 5.012 | 12.596 | 2.515 | 0.478 | |
| | | (0.487) | (1.287) | (2.176) | (1.287) | (2.176) | |
| Thailand | 04/01/1981 | −1.395 | −1.039 | −2.102 | −0.346 | −0.928 | 5 |
| | | (0.706) | (1.868) | (3.157) | (1.868) | (3.157) | |
| Thailand | 09/09/1985 | −0.674 | −1.651 | −3.922 | −0.628 | −5.200 | 242 |
| | | (0.515) | (1.361) | (2.301) | (1.361) | (2.301) | |
| Turkey | 07/18/2016 | −7.326 | −11.535 | −4.985 | 6.216 | 8.195 | 130 |
| | | (1.368) | (3.619) | (6.117) | (3.619) | (6.117) | |
| Venezuela | 02/04/1992 | 0.000 | −9.832 | −9.717 | 5.852 | 16.198 | |
| | | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |
| Venezuela | 11/27/1992 | 0.367 | −0.438 | 2.725 | 4.543 | −1.219 | |
| | | (2.422) | (6.408) | (10.831) | (6.408) | (10.831) | |
| Venezuela | 04/12/2002 | 10.032 | −0.808 | 0.948 | −0.089 | −0.081 | |
| | | (1.397) | (3.696) | (6.248) | (3.696) | (6.248) | |
| **Mean** | | −0.288 | −1.597 | −0.181 | 0.084 | 1.131 | 98 |
| | | (0.370) | (0.978) | (1.653) | (0.978) | (1.653) | |

# Table A.7: Abnormal returns following failed and successful coups

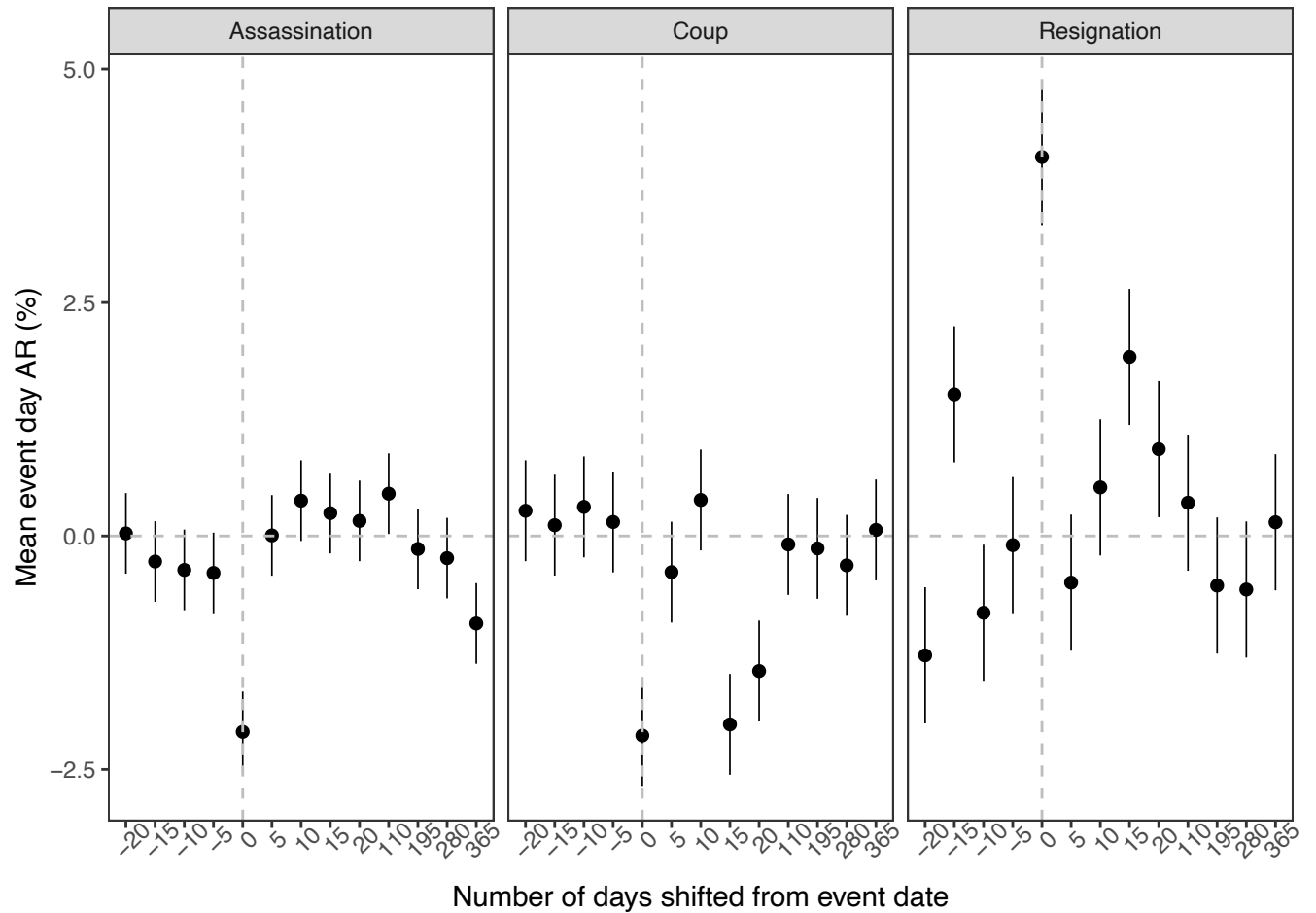| Country | Event Date | Post-Event CAR | | | Pre-Event CAR | | Days to rebound |
|---|---|---|---|---|---|---|---|
| | | (0,0) | (0,6) | (0,19) | (-1,-7) | (-1,-20) | |
| Argentina | 10/11/1971 | 1.338 | −0.856 | 2.940 | −3.264 | −14.747 | |
| | | (1.680) | (4.446) | (7.515) | (4.446) | (7.515) | |
| Argentina | 12/19/1975 | 0.924 | 1.402 | 14.276 | 5.685 | −3.607 | |
| | | (4.145) | (10.966) | (18.535) | (10.966) | (18.535) | |
| Bangladesh | 05/20/1996 | 1.128 | 0.497 | 8.563 | 6.460 | 11.479 | |
| | | (0.853) | (2.258) | (3.816) | (2.258) | (3.816) | |
| Ecuador | 01/21/2000 | 0.341 | 2.309 | 6.146 | 2.272 | 3.899 | |
| | | (2.313) | (6.119) | (10.344) | (6.119) | (10.344) | |
| Paraguay | 04/22/1996 | −0.203 | −2.700 | −3.674 | 0.454 | 18.218 | 42 |
| | | (0.624) | (1.652) | (2.792) | (1.652) | (2.792) | |
| Paraguay | 05/19/2000 | 0.066 | 1.022 | 2.482 | 0.464 | 0.870 | |
| | | (0.626) | (1.656) | (2.799) | (1.656) | (2.799) | |
| Peru | 11/13/1992 | −0.120 | 14.284 | 24.952 | −1.281 | 11.293 | 3 |
| | | (2.752) | (7.281) | (12.307) | (7.281) | (12.307) | |
| Peru | 10/30/2000 | 0.213 | 0.044 | −0.496 | 0.239 | −4.339 | |
| | | (1.097) | (2.903) | (4.906) | (2.903) | (4.906) | |
| Philippines | 07/07/1986 | −3.470 | 11.894 | 0.034 | 10.826 | 17.907 | 2 |
| | | (1.587) | (4.198) | (7.095) | (4.198) | (7.095) | |
| Philippines | 01/27/1987 | 5.634 | 10.651 | 0.545 | −7.358 | −1.492 | |
| | | (2.214) | (5.858) | (9.902) | (5.858) | (9.902) | |
| Philippines | 04/18/1987 | −0.174 | 1.540 | −0.724 | 1.924 | 7.054 | |
| | | (2.501) | (6.617) | (11.184) | (6.617) | (11.184) | |
| Philippines | 08/27/1987 | 4.179 | −21.536 | −44.069 | −14.846 | −12.858 | |
| | | (2.739) | (7.245) | (12.247) | (7.245) | (12.247) | |
| Philippines | 12/11/1989 | −11.089 | −31.340 | −21.375 | −5.954 | −1.390 | 526 |
| | | (1.531) | (4.049) | (6.845) | (4.049) | (6.845) | |
| Philippines | 10/04/1990 | −5.978 | 0.614 | 14.891 | −10.494 | −25.502 | 3 |
| | | (2.010) | (5.319) | (8.991) | (5.319) | (8.991) | |
| Philippines | 07/28/2003 | −2.169 | −5.807 | −2.766 | 0.775 | 2.860 | 31 |
| | | (1.129) | (2.986) | (5.048) | (2.986) | (5.048) | |
| Philippines | 11/29/2007 | 1.100 | 2.605 | −1.040 | −3.489 | −8.759 | |
| | | (1.795) | (4.750) | (8.029) | (4.750) | (8.029) | |
| Spain | 02/24/1981 | −0.221 | −2.653 | −0.572 | 1.537 | 8.807 | 2 |
| | | (0.562) | (1.488) | (2.515) | (1.488) | (2.515) | |
| Thailand | 03/28/1977 | 0.575 | 5.012 | 12.596 | 2.515 | 0.478 | |
| | | (0.487) | (1.287) | (2.176) | (1.287) | (2.176) | |
| Thailand | 04/01/1981 | −1.395 | −1.039 | −2.102 | −0.346 | −0.928 | 5 |
| | | (0.706) | (1.868) | (3.157) | (1.868) | (3.157) | |
| Thailand | 09/09/1985 | −0.674 | −1.651 | −3.922 | −0.628 | −5.200 | 242 |
| | | (0.515) | (1.361) | (2.301) | (1.361) | (2.301) | |
| Turkey | 07/18/2016 | −7.326 | −11.535 | −4.985 | 6.216 | 8.195 | 130 |
| | | (1.368) | (3.619) | (6.117) | (3.619) | (6.117) | |
| Venezuela | 02/04/1992 | 0.000 | −9.832 | −9.717 | 5.852 | 16.198 | |
| | | (0.000) | (0.000) | (0.000) | (0.000) | (0.000) | |
| Venezuela | 11/27/1992 | 0.367 | −0.438 | 2.725 | 4.543 | −1.219 | |
| | | (2.422) | (6.408) | (10.831) | (6.408) | (10.831) | |
| Venezuela | 04/12/2002 | 10.032 | −0.808 | 0.948 | −0.089 | −0.081 | |
| | | (1.397) | (3.696) | (6.248) | (3.696) | (6.248) | |
| Argentina | 06/08/1970 | −1.919 | −0.530 | −2.011 | 0.247 | 4.728 | 204 |
| | | (0.949) | (2.510) | (4.243) | (2.510) | (4.243) | |
| Argentina | 03/22/1971 | 0.925 | 14.294 | 24.218 | 0.131 | 0.274 | |
| | | (1.216) | (3.218) | (5.439) | (3.218) | (5.439) | |
| Thailand | 10/06/1976 | −0.541 | 0.837 | 0.731 | 0.001 | 0.713 | 3 |
| | | (0.639) | (1.691) | (2.859) | (1.691) | (2.859) | |
| Thailand | 10/20/1977 | −0.951 | 4.096 | 7.290 | 9.961 | 10.198 | 2 |
| | | (1.232) | (3.260) | (5.510) | (3.260) | (5.510) | |
| South Korea | 12/12/1979 | −1.784 | −3.474 | −24.465 | −1.678 | −6.187 | 418 |
| | | (1.152) | (3.047) | (5.150) | (3.047) | (5.150) | |
| Thailand | 02/25/1991 | −7.326 | 2.860 | 14.162 | 6.326 | 26.262 | 7 |
| | | (2.884) | (7.631) | (12.899) | (7.631) | (12.899) | |
| Peru | 04/06/1992 | −6.819 | −5.814 | −25.027 | −2.075 | −10.519 | 5 |
| | | (2.210) | (5.848) | (9.885) | (5.848) | (9.885) | |
| Pakistan | 10/14/1999 | −7.737 | −9.431 | −7.130 | 4.151 | 4.900 | 36 |
| | | (1.943) | (5.141) | (8.690) | (5.141) | (8.690) | |
| Nepal | 10/04/2002 | 0.090 | 1.563 | 5.567 | −1.014 | −0.493 | 2 |
| | | (1.206) | (3.190) | (5.392) | (3.190) | (5.392) | |
| Thailand | 09/19/2006 | −0.481 | −2.640 | 0.111 | 1.848 | 0.131 | 17 |
| | | (1.094) | (2.894) | (4.892) | (2.894) | (4.892) | |
| Bangladesh | 01/11/2007 | −0.320 | 10.351 | 14.883 | −0.896 | 2.250 | 2 |
| | | (1.166) | (3.086) | (5.217) | (3.086) | (5.217) | |
| Egypt | 07/03/2013 | −0.346 | 5.169 | 7.144 | 6.776 | −4.869 | 2 |
| | | (1.515) | (4.009) | (6.776) | (4.009) | (6.776) | |
| Thailand | 05/23/2014 | −0.571 | 2.800 | 4.591 | 2.350 | −0.424 | 5 |
| | | (1.201) | (3.177) | (5.370) | (3.177) | (5.370) | |
| **Mean** | | −0.938 | −0.493 | 0.425 | 0.761 | 1.462 | 76 |
| | | (0.282) | (0.747) | (1.262) | (0.747) | (1.262) | |

**Time-shifted placebo test**



Figure A.14: **Time-shifted placebo sensitivity analysis of mean event day abnormal return by type of regime change**
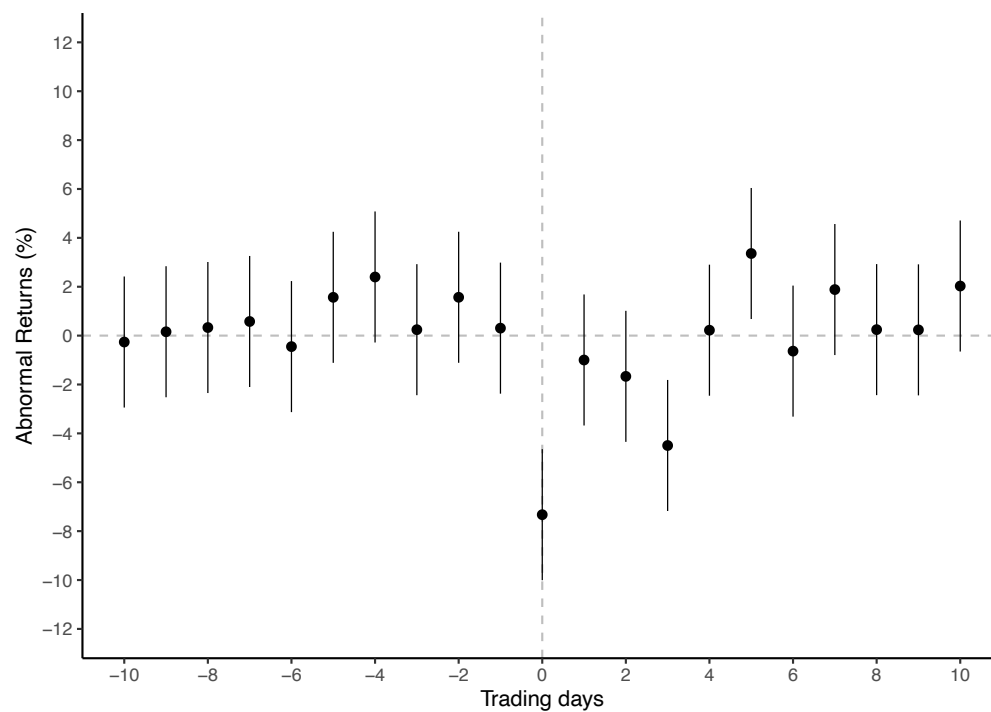
**Figure A.15: Abnormal returns surrounding the 2016 Turkish coup attempt**

*Synthetic Control Portfolio*

Let $\boldsymbol{R}_k$ be the vector of returns for the event country in the estimation window, $\boldsymbol{R}_{-k}$ be the vector of returns for all other countries in the estimation window, $\boldsymbol{X}_1 = (\boldsymbol{R}_k, \text{Var}(\boldsymbol{R}_k))$, $\boldsymbol{X}_0 = (\boldsymbol{R}_{-k}, \text{Var}(\boldsymbol{R}_{-k}))$, and $\boldsymbol{W}_{-k}$ be a $((N-1) \times 1)$ vector of weights where $N$ is the number of countries listed in Table 1. Then $\boldsymbol{W}^*$ is chosen to minimize $(\boldsymbol{X}_1 - \boldsymbol{X}_0 \boldsymbol{W})' \boldsymbol{V} (\boldsymbol{X}_1 - \boldsymbol{X}_0 \boldsymbol{W})$ subject to $w_i \geq 0$ $(i = 1, 2, \ldots, N-1)$ and $\sum_i^{N-1} w_i = 1$, and the vector $\boldsymbol{V}$ is chosen so that stock returns for the control portfolio during the estimation window are are close as possible to the event country.[53]

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[53]See Abadie and Gardeazabal (2003) for further details.

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