Online Appendix to:

**Health and safety regulations and stock returns: evidence from the 1974 Swedish legislative lottery**

The robustness checks contained in this appendix aim to ensure that the findings on the impact of the lottery draw are not spurious. One potential concern is that the test statistics from the standard market model could yield an over-rejection of the null hypothesis of zero abnormal returns, due to the modest sample size of 104. In this setting, this would lead to the erroneous conclusion that shareholders react negatively to the strengthening of health and safety provision, when, in fact, the reaction is not statistically significant. To test this possibility, I first perform a placebo test. I compute the abnormal returns for each trading day from the beginning of the estimation period, 20 March 1973, to the end of the widest event window, 3 April 1974, and count the number of instances in which such returns are statistically significant at the 10%, 5%, and 1% levels according to the test in Section IV. To ensure that the normal returns are correctly calculated and fully include all the relevant information, I re-estimate the parameters of the one-factor market model on a daily basis by taking as the estimation window the one-year period that ends one week before each day. If the standard market model test is systematically biased toward an over-rejection of the null for a sample of this size, I would observe significant abnormal returns over more days than 10%, 5%, and 1% of the sample period. The results are reported in Table A1 and show, instead, that the percentage of significant abnormal returns is fairly in line with the expected values of 10%, 5%, and 1%.

The event study approach is designed to capture the impact of the lottery on the stock returns of the listed companies. A further concern is that there could be other events that occurred at roughly the same time. If this is the case, it leads to the question of what was the true cause of the changes observed in the equity market values. Accordingly, it is important to investigate the announcements around the event day to determine if there were any confounding events. I detail the main financial market–related events that occurred in March 1974 and the beginning of April 1974 in Table A2. I note only few news items relating to any of the sample firms during the longest event window (i.e., from 21 March to 3 April). To assess whether the main results could have been biased by these events, I re-compute in Table A3 the cumulative abnormal returns around the event day by excluding any sample firm that is mentioned in the news within each window. Thus, the sample for ($-$1, +1) and ($-$2, +2) excludes Volvo, Saab, Kopparfors, Åhlen & Holm, Boliden, and Svenska Tändsticks AB. The sample for ($-$3, +3) additionally excludes Electrolux, MoDo, Gränges, Atlas Copco, and SCA, and the sample for ($-$4, +4) and ($-$4, +5) additionally excludes Esselte. The re-estimated coefficients in Table A3 are similar in size and statistical significance to those in Table 3 of the main manuscript. This finding serves as evidence against any concern that the estimates on the full sample suffer from an outlier bias due to the presence of some firms in the media during the event window.

*Table A1. Placebo Test*

|  |  |  |
| --- | --- | --- |
|  | Days | % |
| Significant at the 10% level  | 27 | 10 |
| Significant at the 5% level | 16 | 6 |
| Significant at the 1% level | 4 | 2 |

This table reports the number and percentage of trading days from 20 March 1973, to 3 April 1974, whose abnormal returns, computed according to the market model described in Section IV, are statistically significant at the 10, 5, and 1% levels, respectively.

*Table A2. News Relating to the Sample Firms and the Economy*

|  |  |
| --- | --- |
| Date | Event |
| 1 March | Shipping company Saléns acquires 25% of shares in retailer Åhlen & Holm. |
| 1 March | Husqvarna keeps dividends unchanged and Wirabo Bruk predicts unchanged results for 1974. |
| 1 March | ASEA reports a large increase in orders from abroad. |
| 1 March | SKF invests in a rationalization program. |
| 2 March | Swedish investors worried about the unexpected Labour victory in the United Kingdom. |
| 2 March | AGA and Marabou report increased profits. |
| 5 March | Large export orders from Libya expected after bilateral framework agreement. |
| 5 March | Kinnevik reports an increase in sales. |
| 6 March 6 | Skånska Banken’s investment in AB Vendex is approved. |
| 6 March 6 | China announces its intention to increase technology imports. |
| 7 March 7 | Nordiska Kompaniet announces an end to building new flagship stores. |
| 7 March 7 | Boras Invest increases dividends. |
| 7 March 7 | End of electricity rationing in Sweden. |
| 8 March 8 | Boliden expands in northern Sweden. |
| 8 March 8 | Sundsvalls Banken predicts improved performance. |
| 9 March 9 | The BM division of Volvo doubles profits. |
| 9 March 9 | Bahco increases dividends. |
| 9 March 9 | Demand for corporate credit lower than expected. |
| 11 March | End of heating fuel rationing in Sweden. |
| 12 March | Saab-Scania announces plans to expand production in Sweden. |
| 12 March | Fortia, Dagens Nyheter, and Kockums increase dividends and Sandvik, Nitro Nobel, IRO, and Svenska Cellulosa AB report better than expected profits. |
| 13 March | Volvo to start producing trucks in Poland. |
| 13 March | Unemployment fell in February. |
| 13 March | Iggesund announces a divided increase, and Garphytte Bruk and Alcro keep their dividends unchanged. |
| 13 March | Plans for a new nuclear powerplant announced. Parliament could decide on the plant in the fall. |
| 14 March | Pulp and paper companies predict sharply higher costs if proposed restrictions on the vehicle length of trucks are introduced. |
| 14 March | Banks report lower deposits for February. |
| 14 March | Sandvik increases profits. |
| 14 March | Balken increases dividends. |
| 14 March | Providentia reports strongly improved results. |
| 14 March | South Korea announces plans to become a grand ship-building nation. |
| 15 March | Gränges and Kopperbergs announce dividend increases. |
| 15 March | Sharp decline in U.K. trade. |
| 15 March | Handelsbanken ceases to give long-term prognoses on performance. |
| 16 March | Electrolux buys a company in the United States.  |
| 16 March | Plane crash in Teheran to have a big impact on insurer Skandia. |
| 16 March | Swedish steel producers made a long-term export agreement with the German Democratic Republic. |
| 17 March | Saab-Scania announces new expansions in Sweden. |
| 17 March | ASEA close to securing a giant order of electric train engines in the United States. |
| 18 March | LM Ericsson increases dividends. |
| 18 March | Ry AB reports an increase in profits. |
| 18 March | End of an oil embargo by several OPEC nations against the United States, Europe, and Japan. |
| 20 March | Bergvik increases dividends. |
| 20 March | Diligentias predict increased revenues. |
| 21 March | ESAB keeps dividends unchanged and Höganäs, Uddeholm, and PLM increase dividends. |
| 21 March | Sweden and the United States restore diplomatic relations at the ambassadorial level. |
| 22 March | Electrolux and MoDo increase dividends. |
| 23 March | Gränges and Volvo announce large investments in Sweden. |
| 23 March | Atlas Copco receives a gigantic order from North Korea. |
| 24 March | SCA predicts that its high debt level will pay off in the long term. |
| 25 March | Renewed volatility on currency markets. |
| 26 March | Both Volvo and Saab are looking to expand production in Sweden. |
| 27 March | Vehicle length restrictions on the length of trucks may not be introduced after all. |
| 27 March | Kopparfors and Åhlen & Holm both announce expansion plans. |
| 28 March | Outcome of the lottery the preceding day is widely reported. |
| 28 March | Boliden and Svenska Tändsticks AB announce increased dividends. |
| 30 March | Wild strike at Boliden following the report of high profits. |
| 31 March | Speculations regarding a snap election across the political spectrum. |
| 1 April | Prime Minister Palme announces that there will be no snap elections. |
| 2 April | Esselte sells a paper mill to a state-owned company.  |
| 2 April | Electrolux expands in Finland through acquisition. |
| 3 April | The central bank (*Riksbank*) increases restrictions on how much banks can lend in relation to deposits. |

Information on news events collected from the archives of the Swedish broadsheets *Dagens Nyheter* and *Svenska Dagbladet*.

*Table A3. Cumulative Abnormal Returns, Excluding Potentially Contaminated Companies*

|  |  |  |
| --- | --- | --- |
| Window | % | N |
| ($-$1, +1) 26 March, 28 March | $-$0.278\*\*\* | 98 |
|  | (0.104) |  |
| ($-$2, +2) 25 March, 29 March | $-$0.220\*\* | 98 |
|  | (0.104) |  |
| ($-$3, +3) 22 March, 1 April | $-$0.136 | 93 |
|  | (0.123) |  |
| ($-$4, +4) 21 March, 2 April | $-$0.284\*\* | 93 |
|  | (0.119) |  |
| ($-$4, +5) 21 March, 3 April | $-$0.258\*\* | 92 |
|  | (0.099) |  |

This table reports the abnormal returns and cumulative abnormal returns estimated according to the market model described in Section IV for the period around the event, from 22 March 1974, to 3 April 1974. The null hypothesis is zero abnormal returns. The event day, day 0, is the parliamentary lottery day, 27 March 1974. The sample for ($-$1, +1) and ($-$2, +2) excludes Volvo, Saab, Kopparfors, Åhlen & Holm, Boliden, and Svenska Tändsticks AB. The sample for ($-$3, +3) additionally excludes Electrolux, MoDo, Gränges, Atlas Copco, and SCA. The sample for ($-$4, +4) and ($-$4, +5) additionally excludes Esselte. Heteroscedasticity-consistent standard errors are reported in parentheses. The superscripts \*\* and \*\*\* indicate statistical significance at the 5 and 1% levels, respectively.