Do Firms Strategically Internalize Disclosure Spillovers? Evidence from Cash-Financed M&As

Jinhwan Kim
Stanford University

Rodrigo S. Verdi
MIT Sloan School of Management

Benjamin P. Yost
Boston College

ONLINE APPENDIX
Table of Contents

1. Additional Tests Related to Table 3: Change in Acquirer Disclosure Tone during Negotiation
   Table A1. Robustness to Retaining Hostile Takeovers, Multiple Bidder Deals, and Tender Offers

2. Additional Tests Related to Table 4: Reversal of Acquirer Disclosure Tone
   Table A2. Reversal in Acquirer Disclosure Tone using Negotiation Period as Benchmark

3. Additional Tests Related to Table 5: Effect of Acquirer Disclosures on Target Premiums
   Table A3. Robustness to Retaining Hostile Takeovers, Multiple Bidder Deals, and Tender Offers
   Table A4. Effect of Acquirer Disclosures on Target Premiums: Alternative Acquisition Multiples
   Table A5. Effect of Acquirer Disclosures on Acquirer Returns

4. Additional Tests Related to Table 6: Validation of Returns Spillover Measure
   Table A6. Acquirer Earnings Announcements

5. Additional Tests Related to Table 7: Alternative Proxies for Information Spillovers
   Table A7. Table 7 Results with Positive and Negative Spillover Groups

6. Additional Tests Related to Table 8: Changes in Acquirer News Type During Negotiation
   Table A8. Table 8 Results with Positive and Negative Spillover Groups

7. Additional Tests Related to Table 9: Robustness to RavenPack Sample and Falsification Tests
   Table A9. Table 9 Results with Positive and Negative Spillover Groups

8. Additional Tests Related to Table 10: The Effect on Activism Campaigns and Deal Failures
   Table A10. Table 10 Results using an LDV Model
   Table A11. Table 10 Results with Positive and Negative Spillover Groups
Table A1
Changes in acquirer disclosure tone during negotiation: retaining hostile takeovers, multiple bidder deals, and tender offers

This table presents the results from examining the change in the tone of the acquiring firm’s press articles during merger negotiations, while retaining hostile takeovers, multiple bidder deals, and tender offers. The unit of analysis in each column is a firm-day. **Negotiation** is an indicator variable equal to one (zero) if the firm-day falls within the 45-trading-day window from $t=-60$ to $t=-16$ days (120-trading-day window from $t=-180$ to $t=-61$ days) relative to the acquisition’s public announcement date. All variables are defined in Appendix A. All specifications include firm-deal and year-quarter fixed effects. The $t$-statistics are reported below the coefficient estimates in parentheses and are calculated based on standard errors clustered by firm-deal and year-quarter. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed $t$-test.

| Dependent Variable                      | Pr. Sign | Factiva Tone-Sentiment | Factiva Tone-CAR | Factiva Tone-Index | Factiva Tone-Index |
|-----------------------------------------|----------|------------------------|------------------|--------------------|--------------------|
| Negotiation                             | -0.002   | -0.006                 | -0.004           | 0.000              |                    |
|                                         | (-0.21)  | (-0.43)                | (-0.30)          | (0.01)             |                    |
| Negotiation $\times$ Returns Spillover Rank | -0.020** | -0.032**               | -0.026***        |                    |                    |
|                                         | (-1.99)  | (-2.41)                | (-2.65)          |                    |                    |
| Negotiation $\times$ Positive Returns Spillover | -       |                        |                  | -0.016**           | (-2.06)            |
| Negotiation $\times$ Negative Returns Spillover | +       |                        |                  | 0.025*             | (1.68)             |
| Negotiation $\times$ Target BTM         | 0.003    | 0.019**                | 0.011            | 0.011              |                    |
|                                         | (0.24)   | (2.03)                 | (1.33)           | (1.30)             |                    |
| Negotiation $\times$ Target ROA         | -0.020   | -0.033                 | -0.026*          | -0.025**           |                    |
|                                         | (-0.78)  | (-1.11)                | (-1.92)          | (-1.96)            |                    |
| Negotiation $\times$ Target Firm Age    | 0.001    | -0.006                 | 0.003            | 0.002              |                    |
|                                         | (0.19)   | (-1.03)                | (-0.83)          | (-0.68)            |                    |
| Negotiation $\times$ Target Return      | 0.011    | 0.003                  | 0.007            | 0.007              |                    |
|                                         | (1.19)   | (0.30)                 | (1.24)           | (1.12)             |                    |
| Negotiation $\times$ Acquirer BTM       | -0.023   | -0.035**               | -0.029*          | -0.029*            |                    |
|                                         | (-1.13)  | (-2.29)                | (-1.88)          | (-1.93)            |                    |
| Negotiation $\times$Relative Size       | -0.058   | 0.003                  | -0.027           | -0.024             |                    |
|                                         | (-1.39)  | (0.07)                 | (-0.75)          | (-0.66)            |                    |
| Negotiation $\times$ Horizontal Merger  | -0.014   | -0.009                 | -0.011           | -0.010             |                    |
|                                         | (-1.00)  | (-0.77)                | (-0.75)          | (-0.66)            |                    |
| Negotiation $\times$ Vertical Merger    | 0.018    | 0.012                  | 0.015            | 0.017              |                    |
|                                         | (1.49)   | (0.76)                 | (1.26)           | (1.54)             |                    |

**Negotiation $\times$ Controls** Yes Yes Yes Yes
Firm-deal fixed effects Yes Yes Yes Yes
Year-quarter fixed effects Yes Yes Yes Yes
S.E. clustered by firm-deal and year-quarter Yes Yes Yes Yes
No. of observations 85,955 85,955 85,955 85,955
No. of acquisitions 541 541 541 541
Adj. R-squared 7.1% 3.7% 6.9% 6.9%
Table A2
Reversal in acquirer disclosure tone following deal completion using the negotiation period as the benchmark

This table presents the results from examining the change in the tone of the acquiring firm’s press articles in the post-completion period, relative to the negotiation period. The unit of analysis in each column is a firm-day. *Post-Completion* is an indicator variable equal to one (zero) if the firm-day falls within the 45-trading-day window from $t=+2$ to $t=+46$ days relative to the acquisition completion date (45-trading-day window from $t=-61$ to $t=-16$ days relative to the acquisition’s public announcement date). All variables are defined in Appendix A. All specifications include firm-deal and year-quarter fixed effects. The $t$-statistics are reported below the coefficient estimates in parentheses and are calculated based on standard errors clustered by firm-deal and year-quarter. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed $t$-test.

| Dependent Variable | Pr. Sign | Factiva Tone-Sentiment | Factiva Tone-CAR | Factiva Tone-Index | Factiva Tone-Index |
|--------------------|----------|------------------------|-----------------|-------------------|-------------------|
| Post-Completion     | 0.035    | -0.010                 | 0.013           | 0.006             |
|                     | (1.41)   | (-0.35)                | (0.56)          | (0.32)            |
| Post-Completion × Returns Spillover Rank | +       | 0.034*                 | 0.051***        | 0.043***          |
|                     | (1.89)   | (3.33)                 | (3.29)          |                   |
| Post-Completion × Positive Returns Spillover | +       |                      |                 | 0.023*            |
|                     |          |                        |                 | (1.88)            |
| Post-Completion × Negative Returns Spillover | -       |                      |                 | -0.047***         |
|                     |          |                        |                 | (-2.21)           |
| Post-Completion × Target BTM | 0.008  | 0.020                  | 0.014           | 0.015             |
|                     | (0.52)   | (1.24)                 | (1.15)          | (1.19)            |
| Post-Completion × Target ROA | 0.054  | 0.042                  | 0.048           | 0.041             |
|                     | (1.16)   | (0.71)                 | (1.07)          | (0.90)            |
| Post-Completion × Target Firm Age | 0.001  | 0.008                  | 0.004           | 0.004             |
|                     | (0.17)   | (0.84)                 | (0.46)          | (0.39)            |
| Post-Completion × Target Return | -0.002 | -0.029                 | -0.016          | -0.015            |
|                     | (-0.18)  | (-1.27)                | (-0.98)         | (-0.95)           |
| Post-Completion × Acquirer BTM | -0.013 | -0.027                 | -0.020          | -0.022            |
|                     | (-0.52)  | (-0.97)                | (-0.82)         | (-0.89)           |
| Post-Completion × Relative Size | 0.019  | 0.012                  | 0.015           | 0.014             |
|                     | (0.48)   | (0.16)                 | (0.28)          | (0.26)            |
| Post-Completion × Horizontal Merger | -0.022 | 0.002                  | -0.010          | -0.011            |
|                     | (-1.19)  | (0.11)                 | (-0.71)         | (-0.81)           |
| Post-Completion × Vertical Merger | -0.018 | -0.014                 | -0.016          | -0.014            |
|                     | (-0.81)  | (-0.42)                | (-0.56)         | (-0.50)           |

Firm-deal fixed effects Yes Yes Yes Yes
Year-quarter fixed effects Yes Yes Yes Yes
S.E. clustered by firm-deal and year-quarter Yes Yes Yes Yes
No. of observations 33,244 33,244 33,244 33,244
No. of acquisitions 381 381 381 381
Adj. R-squared 7.6% 4.7% 7.4% 7.4%
Table A3
The effect of acquirer disclosures on target premiums: retaining hostile takeovers, multiple bidder deals, and tender offers

This table presents the results from examining the target firm’s run-up and premium, while retaining hostile takeovers, multiple bidder deals, and tender offers. The unit of analysis in each column is a completed acquisition. All variables are defined in Appendix A. The t-statistics are reported below the coefficient estimates in parentheses and are calculated based on standard errors clustered by year-quarter. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed t-test.

| Dependent Variable | Pr. Sign | Target Runup (-60,-16) | Target Premium (-60,-2) |
|--------------------|----------|------------------------|------------------------|
|                    |          | (-6.581)* (-1.75)      | (-7.326)** (-2.42)     |
| Returns Spillover  | -        | -2.547 (-1.27)         | -0.922 (0.15)          |
| Positive Returns Spillover | -        | -5.449** (-2.57)       | 0.922                  |
| Negative Returns Spillover | -        |                       |                        |
| Target BTM         | 1.659    | 1.777                  | 7.733                  |
|                    | (1.12)   | (1.19)                 | (1.32)                 |
| Target ROA         | -1.146   | -1.340                 | -19.761                |
|                    | (-0.12)  | (-0.14)                | (-0.73)                |
| Target Firm Age    | 0.154    | 0.002                  | 0.922                  |
|                    | (0.12)   | (0.00)                 | (0.49)                 |
| Target Return      | 1.371    | 1.469                  | 1.689                  |
|                    | (0.55)   | (0.59)                 | (0.41)                 |
| Acquirer BTM       | -6.490   | -6.091                 | -14.256                |
|                    | (-1.62)  | (-1.46)                | (-1.49)                |
| Relative Size      | 12.305   | 10.491                 | 27.951**               |
|                    | (1.30)   | (1.15)                 | (2.37)                 |
| Horizontal Merger  | 1.950    | 1.759                  | 4.434                  |
|                    | (0.77)   | (0.70)                 | (1.10)                 |
| Vertical Merger    | 3.063    | 3.072                  | 5.984**                |
|                    | (1.29)   | (1.31)                 | (2.48)                 |
| Controls           | Yes      | Yes                    | Yes                    |
| Year-quarter fixed effects | Yes     | Yes                    | Yes                    |
| Industry fixed effects (NAICS 2-digit) | Yes      | Yes                    | Yes                    |
| S.E. clustered by year-quarter | Yes      | Yes                    | Yes                    |
| No. of observations | 541      | 541                    | 541                    |
| Adj. R-squared     | 9.1%     | 8.9%                   | 15.9%                  |


The effect of acquirer disclosures on target premiums: alternative acquisition multiples

This table presents the results of the target premium tests in Table 5 after replacing Target Premium\(_{-60,+2}\) with two alternative proxies for deal value. The first alternative proxy, Deal Value over Target Book Assets is computed using the total deal value in dollars as provided by SDC divided by the firm’s total book value of assets at the fiscal year-end prior to the start of the pre-negotiation period. The second alternative proxy, Deal Value over Target Book Equity is computed using the total deal value in dollars as provided by SDC divided by the firm’s total book value of equity at the fiscal year-end prior to the start of the pre-negotiation period. All other variables are defined in Appendix A. The t-statistics are reported below the coefficient estimates in parentheses and are calculated based on standard errors clustered by year-quarter. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed t-test.

| Dependent Variable | Deal Value over Target Book Assets | Deal Value over Target Book Equity |
|--------------------|----------------------------------|----------------------------------|
| Returns Spillover | Pr. Sign | -0.544** | -0.788 |
| Rank | | (-2.41) | (-1.48) |
| Target BTM | | -1.534*** | -3.825*** |
| | | (-5.44) | (-4.45) |
| Target ROA | | -0.487 | -1.447*** |
| | | (-0.40) | (-2.85) |
| Target Firm Age | | -0.228 | -0.129 |
| | | (-1.03) | (-0.50) |
| Target Return | | 0.402** | 2.257*** |
| | | (2.13) | (2.64) |
| Acquirer BTM | | -0.684 | -0.009 |
| | | (-1.35) | (-0.01) |
| Relative Size | | -1.532** | -7.879** |
| | | (-2.12) | (-2.01) |
| Horizontal Merger | | 0.062 | -0.457 |
| | | (0.48) | (-1.08) |
| Vertical Merger | | 0.445*** | -0.365 |
| | | (6.24) | (-0.35) |

Year-quarter fixed effects | Yes | Yes |
Industry fixed effects (NAICS 2-digit) | Yes | Yes |
S.E. clustered by year-quarter | Yes | Yes |
No. of observations | 381 | 381 |
No. of acquisitions | 381 | 381 |
Adj. R-squared | 34.8% | 14.0% |
This table presents the results from examining the acquirer firm’s run-up and announcement return, conditional on the nature of the information spillover between the acquirer and target firms. The unit of analysis in each column is a completed acquisition. *Acquirer Runup*<sub>(-60,-16)</sub> is the acquirer firm’s cumulative daily abnormal returns beginning with the negotiation period until 16 days prior to the public acquisition announcement date (t=-60 to t=-16 days relative to the announcement date). *Acquirer Announce CAR*<sub>(-1,+1)</sub> is the acquirer firm’s 3-day cumulative abnormal return around the public announcement of the deal. Abnormal returns are computed by adjusting for the value-weighted index. All other variables are defined in Appendix A. The t-statistics are reported below the coefficient estimates in parentheses and are calculated based on standard errors clustered by year-quarter. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed t-test.

| Dependent Variable                  | Pr. Sign | Acquirer Runup<sub>(-60,-16)</sub> | Acquirer Announce CAR<sub>(-1,+1)</sub> |
|-------------------------------------|----------|------------------------------------|--------------------------------------|
| Returns Spillover Rank              | -,-,+    | -0.475 (0.58)                      | 0.024** (2.06)                      |
| Target BTM                          |          | 1.299 (1.06)                       | 0.020* (1.95)                       |
| Target ROA                          |          | -1.676 (-0.77)                     | 0.029 (0.89)                        |
| Target Firm Age                     |          | 1.192 (1.57)                       | -0.012*** (-4.91)                   |
| Target Return                       |          | 1.501* (1.66)                      | 0.009 (0.94)                        |
| Acquirer BTM                        |          | -4.299 (-1.48)                     | -0.027 (-1.13)                      |
| Relative Size                       |          | 13.058*** (3.43)                   | 0.170*** (2.83)                     |
| Horizontal Merger                   |          | 0.921 (0.65)                       | 0.007 (0.41)                        |
| Vertical Merger                     |          | 0.969 (0.60)                       | -0.010 (-0.58)                      |

Year-quarter fixed effects: Yes
Industry fixed effects (NAICS 2-digit): Yes
S.E. clustered by year-quarter: Yes
No. of observations: 381
No. of acquisitions: 381
Adj. R-squared: 9.2%
Table A6
Validation of returns spillover measure: Target return responses to acquirer earnings announcements

This table presents the results from the target’s return responses to the acquirer’s historical earnings surprises in the 12 quarters prior to the start of the pre-negotiation period. The unit of analysis is the acquirer’s quarterly earnings announcement. If analysts’ forecasts are available for the acquirer in I/B/E/S, then *Acquirer EA Surprise* is measured as the difference between actual EPS for the quarter and the most recent median EPS forecast before an earnings announcement, scaled by the acquirer’s share price from four quarters prior. If analysts’ forecasts are unavailable for the acquirer, then *Acquirer EA Surprise* is measured as the difference between current EPS for the quarter and the prior year’s EPS for the same quarter, scaled by the acquirer’s share price from four quarters prior. All variables are defined in Appendix A. All specifications include year-quarter fixed effects. The *t*-statistics are reported below the coefficient estimates in parentheses and are calculated based on standard errors clustered by firm-deal and year-quarter. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed *t*-test.

| Dependent Variable | Pr. Sign | Target CAR_{(-1,+1)} |
|--------------------|----------|----------------------|
| *Acquirer EA Surprise* | 0.005** | -0.000** |
|  | (2.03) | (-2.35) |
| *Acquirer EA Surprise* × Returns Spillover Rank | 0.019** | |
|  | (2.11) | |
| *Acquirer EA Surprise* × Positive Returns Spillover Rank | + | 0.011** |
|  |  | (2.32) |
| *Acquirer EA Surprise* × Negative Returns Spillover Rank | - | -0.014*** |
|  |  | (-3.18) |
| *Acquirer CAR_{(-1,+1)}* | 0.066*** | 0.066*** |
|  | (2.90) | (4.40) |
| *Target BTM* | -0.004*** | -0.004*** |
|  | (-4.14) | (-2.60) |
| *Target ROA* | 0.033** | 0.033 |
|  | (1.98) | (1.60) |
| *Target Firm Age* | 0.002 | 0.002 |
|  | (0.60) | (0.63) |
| *Target Return* | -0.002 | -0.002 |
|  | (-1.19) | (-1.23) |
| *Acquirer BTM* | 0.004 | 0.003 |
|  | (0.84) | (1.05) |
| *Relative Size* | -0.017 | -0.017 |
|  | (-1.28) | (-1.50) |
| *Acquirer Analyst Coverage* | -0.000 | -0.000 |
|  | (-0.51) | (-0.69) |
| *Target Analyst Coverage* | -0.000 | -0.000 |
|  | (-1.04) | (-1.23) |

- Firm-deal fixed effects: Yes
- Year-quarter fixed effects: Yes
- S.E. clustered by firm-deal and year-quarter: Yes
- No. of observations: 4,320, 4,320
- No. of acquisitions: 360, 360
- Adj. R-squared: 17.9%, 17.9%
Table A7
Alternative proxies for information spillovers with positive and negative spillover groups

This table presents the results from repeating the analyses in Tables 3 and 5 using three alternative proxies for information spillovers between the acquirer and target firms, while including the positive and negative spillover group classifications created using each proxy. Panel A shows the results from examining the change in the tone of the acquiring firm’s disclosures during merger negotiations. Panel B shows the results from examining the target firm’s run-up and premium. In Panel A the unit of analysis is a firm-day, the specifications include firm-deal and year-quarter fixed effects, and the \( t \)-statistics reported below the coefficient estimates in parentheses are calculated based on standard errors clustered by firm-deal and year-quarter. In Panel B the unit of analysis is a completed acquisition, and the \( t \)-statistics reported below the coefficient estimates in parentheses are calculated based on standard errors clustered by year-quarter. All variables are defined in Appendix A. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed \( t \)-test.

### Panel A: Acquirer disclosure tone during negotiation

| Spillover Proxy                      | Pr. Sign | PR Spillover | Earnings Spillover | EA Spillover |
|--------------------------------------|----------|--------------|--------------------|--------------|
| **Negotiation**                      |          |              |                    |              |
|                                      | 0.002    | -0.001       | -0.005             |              |
|                                      | (0.15)   | (-0.11)      | (-0.43)            |              |
| **Negotiation \times Positive Spillover** | -        | -0.028**     | -0.014**           | -0.034**     |
|                                      | (-2.71)  | (-2.29)      | (-2.47)            |              |
| **Negotiation \times Negative Spillover** | +        | 0.006        | 0.033***           | 0.031**      |
|                                      | (0.72)   | (3.29)       | (2.59)             |              |
| **Negotiation \times Controls**      | Yes      | Yes          | Yes                | Yes          |
| **Firm-deal fixed effects**           | Yes      | Yes          | Yes                | Yes          |
| **Year-quarter fixed effects**        | Yes      | Yes          | Yes                | Yes          |
| **S.E. clustered by firm-deal and year-quarter** | Yes | Yes | Yes | Yes | |
| **No. of observations**               | 60,528   | 57,191       | 57,191             |              |
| **No. of acquisitions**               | 381      | 360          | 360                |              |
| **Adj. R-squared**                    | 3.8%     | 3.5%         | 3.5%               |              |

### Panel B: Effect of acquirer disclosures on target premiums

| Spillover Proxy                      | Pr. Sign | PR Spillover | Earnings Spillover | EA Spillover |
|--------------------------------------|----------|--------------|--------------------|--------------|
| **Positive Spillover**               | -        | -6.241*      | -8.947**           | -1.979       |
|                                      | (-1.92)  | (-2.42)      | (-0.54)            |              |
| **Negative Spillover**               | -        | -4.703       | -8.357**           | -7.557***    |
|                                      | (-1.14)  | (-2.09)      | (-2.84)            |              |
| **Controls**                         | Yes      | Yes          | Yes                | Yes          |
| **Year-quarter fixed effects**        | Yes      | Yes          | Yes                | Yes          |
| **Industry fixed effects (NAICS 2-digit)** | Yes | Yes | Yes | Yes | |
| **S.E. clustered by year-quarter**   | Yes      | Yes          | Yes                | Yes          |
| **No. of observations**               | 381      | 360          | 360                |              |
| **No. of acquisitions**               | 381      | 360          | 360                |              |
| **Adj. R-squared**                    | 16.5%    | 25.8%        | 20.4%              |              |
Table A8
Changes in acquirer news type during negotiation with positive and negative spillover groups

This table presents the results from examining changes in the types of news disclosed by the acquirer during merger
negotiations, including changes in both the extensive and intensive margins of disclosure, as well as the use of macro-
oriented words in the disclosures, while including the positive and negative spillover group classifications. In the first
(second) column, \textit{Factiva Tone-CAR} is equal to one if the disclosing firm’s three-day cumulative abnormal return
around a disclosure is positive (negative), and zero otherwise. In the third column, \textit{Acquirer CAR} is the disclosing
firm’s three-day cumulative abnormal return around a disclosure. In the fourth column, \textit{Macro Content} is equal to one
(minus one) if the number of macro-oriented words in the firm’s disclosures on that day is above (below) the sample
average. The unit of analysis in each column is a firm-day. The sample in the first two columns includes all trading
days during the pre-negotiation and negotiation periods (regardless of whether there is a disclosure). The sample in
the third and fourth columns include only trading days during the pre-negotiation and negotiation periods on which
the acquirer firm makes a disclosure. \textit{Negotiation} is an indicator variable equal to one (zero) if the firm-day falls within
the 45-trading-day window from $t=-60$ to $t=-16$ days (120-trading-day window from $t=-180$ to $t=-61$ days) relative
to the acquisition’s public announcement date. All variables are defined in Appendix A. All specifications include
firm-deal and year-quarter fixed effects. The $t$-statistics are reported below the coefficient estimates in parentheses
and are calculated based on standard errors clustered by firm-deal and year-quarter. *, **, *** indicate statistical
significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed $t$-test.

| Type of News | Extensive Margin | Intensive Margin | Macro News |
|--------------|------------------|------------------|------------|
|              | \textit{Factiva Tone-CAR} | \textit{Acquirer CAR}_{(-1,+1)} | \textit{Macro Content} |
| News Day Classification | Pr. Sign | Good News Days | Bad News Days | All News Days | All News Days | All News Days | All News Days |
| Negotiation | -0.003 | -0.002 | 0.119 | -0.026 | (-0.29) | (0.77) | (-0.84) |
| \textit{Negotiation} \times \textit{Positive Returns Spillover} | -0.019** | 0.002 | -0.199* | 0.017 | (-2.15) | (1.78) | (1.02) |
| \textit{Negotiation} \times \textit{Negative Returns Spillover} | 0.024* | -0.024*** | 0.469** | -0.108** | (1.80) | (-4.11) | (-2.77) |
| Negotiation \times \textit{Target BTM} | -0.006 | -0.011** | 0.450* | 0.011 | (-0.72) | (1.80) | (0.35) |
| Negotiation \times \textit{Target ROA} | -0.036 | -0.001 | -0.037 | -0.177* | (-1.08) | (-0.10) | (-1.89) |
| Negotiation \times \textit{Target Firm Age} | -0.001 | 0.005*** | -0.059 | -0.011 | (-0.15) | (2.69) | (-0.73) |
| Negotiation \times \textit{Target Return} | -0.007 | -0.007 | 0.224 | 0.015 | (-0.55) | (1.22) | (0.66) |
| Negotiation \times \textit{Acquirer BTM} | -0.011 | 0.010 | -0.195 | 0.142 | (-0.70) | (0.61) | (1.53) |
| Negotiation \times \textit{Relative Size} | 0.007 | -0.034** | 1.154 | -0.040 | (0.09) | (-2.10) | (-0.23) |
| Negotiation \times \textit{Horizontal Merger} | -0.002 | 0.003 | 0.049 | -0.008 | (-0.41) | (0.60) | (-0.26) |
| Negotiation \times \textit{Vertical Merger} | -0.014 | -0.010 | -0.063 | 0.019 | (-1.27) | (-1.29) | (0.50) |

Firm-deal fixed effects | Yes | Yes | Yes | Yes |
Year-quarter fixed effects | Yes | Yes | Yes | Yes |
S.E. clustered by firm-deal and year-quarter | Yes | Yes | Yes | Yes |
No. of observations | 60,528 | 60,528 | 18,348 | 18,348 |
No. of acquisitions | 381 | 381 | 381 | 381 |
Adj. R-squared | 13.8% | 10.3% | 4.9% | 26.8% |
Table A9
Robustness to RavenPack PR sample and two falsification tests with positive and negative spillover groups

This table presents the results of a robustness test examining the change in acquirer disclosure tone using RavenPack press releases (column 1) as well as the results of two falsification tests examining the change in target disclosure tone (column 2) and the change in acquirer disclosure tone in stock-for-stock deals (column 3), while including the positive and negative spillover group classifications. The firm-initiated press articles used in this table are identified by RavenPack as distributed through the following press release wires: Press Newswire, Business Wire, Marketwire, and GlobeNewswire. The samples used in this table include deals for which the start of the pre-negotiation period occurs on or after January 1st, 2004. The unit of analysis in each column is a firm-day. Negotiation is an indicator variable equal to one (zero) if the firm-day falls within the 45-trading-day window from \( t=-60 \) to \( t=-16 \) days (120-trading-day window from \( t=-180 \) to \( t=-61 \) days) relative to the acquisition’s public announcement date. All variables are defined in Appendix A. All specifications include firm-deal and year-quarter fixed effects. The \( t \)-statistics are reported below the coefficient estimates in parentheses and are calculated based on standard errors clustered by firm-deal and year-quarter. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed \( t \)-test.

| Dependent Variable | Disclosing Firm | Acquirer | RP Tone-Index |
|--------------------|-----------------|----------|--------------|
| Negotiation        | Pr. Sign        | Acquirer | Target       | Acquirer |
|                    |                 | Cash Deals | Cash Deals | Stock Deals |
| Negotiation        | 0,+,+           | 0.001 (0.08) | 0.008*** (2.97) | 0.005* (1.95) |
| Negotiation \times Positive Returns Spillover | -0,0 | -0.010* (-1.76) | -0.003 (-0.56) | 0.000 (0.03) |
| Negotiation \times Negative Returns Spillover | +,0,0 | 0.014** (2.41) | -0.005 (-0.76) | -0.003 (-0.48) |
| Negotiation \times Target BTM | 0.002 (0.62) | 0.001 (0.48) | 0.005 (-1.28) |
| Negotiation \times Target ROA | 0.002 (0.09) | 0.029*** (3.47) | 0.005 (0.26) |
| Negotiation \times Target Firm Age | 0.001 (0.20) | -0.002*** (-2.07) | -0.006 (-0.60) |
| Negotiation \times Target Return | -0.000 (-0.05) | 0.000 (0.10) | -0.006 (-0.60) |
| Negotiation \times Acquirer BTM | -0.007 (-0.87) | 0.004 (0.54) | -0.002 (-0.27) |
| Negotiation \times Relative Size | 0.016 (0.92) | 0.019 (1.50) | -0.012 (-0.82) |
| Negotiation \times Horizontal Merger | 0.009 (1.49) | -0.001 (-0.23) | -0.003 (-0.77) |
| Negotiation \times Vertical Merger | -0.006 (-0.84) | -0.001 (-0.23) | 0.009 (0.82) |

- Firm-deal fixed effects: Yes
- Year-quarter fixed effects: Yes
- S.E. clustered by firm-deal and year-quarter: Yes
- No. of observations: 43,236
- No. of acquisitions: 272
- Adj. R-squared: 2.1%
Table A10
The effect of information spillovers on activism campaigns and deal failures: LDV model

This table presents the results from estimating a probit model to examine the likelihood that target shareholders initiate an activism campaign opposing an announced merger (columns 1 and 2), and the likelihood of an announced deal failing to reach completion (columns 3 and 4). The unit of analysis in each column is an announced acquisition. All variables are defined in Appendix A. The $t$-statistics are reported below the coefficient estimates in parentheses and are calculated based on standard errors clustered by year-quarter. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed $t$-test.

| Dependent Variable          | Pr. Sign | Activism Campaign | Failed Deal |
|-----------------------------|----------|--------------------|-------------|
| $|Returns Spillover$ | +        | 0.534*             | 0.484**     |
| | Rank | | (1.78)             | (2.57)      |
| Target BTM                  | -0.065   | -0.351*            |             |
|                             | (-0.19)  | (-1.86)            |             |
| Target ROA                  | -2.216***| -0.567             |             |
|                             | (-5.75)  | (-1.59)            |             |
| Target Firm Age             | 0.236*   | 0.058              |             |
|                             | (1.83)   | (0.70)             |             |
| Target Return               | 0.447    | -0.407***          |             |
|                             | (1.18)   | (-2.71)            |             |
| Acquirer BTM                | -1.217** | -0.229             |             |
|                             | (-2.01)  | (-0.96)            |             |
| Relative Size               | 1.816**  | 2.415***           |             |
|                             | (2.25)   | (4.14)             |             |
| Horizontal Merger           | 0.265    | -0.214             |             |
|                             | (0.84)   | (-1.00)            |             |
| Vertical Merger             | 0.444    | -0.313             |             |
|                             | (1.51)   | (-1.28)            |             |

Year-quarter fixed effects | Yes | Yes
Industry fixed effects (NAICS 2-digit) | Yes | Yes
S.E. clustered by year-quarter | Yes | Yes
No. of observations | 482 | 482
No. of acquisitions | 482 | 482
Pseudo R-squared | 25.1% | 15.9%
Table A11
The effect of information spillovers on activism campaigns and deal failures with positive and negative spillover groups

This table presents the results from estimating an OLS regression to examine the likelihood that target shareholders initiate an activism campaign opposing an announced merger (column 1), and the likelihood of an announced deal failing to reach completion (column 2), while including the positive and negative spillover group classifications. The unit of analysis in each column is an announced acquisition. All variables are defined in Appendix A. The t-statistics are reported below the coefficient estimates in parentheses and are calculated based on standard errors clustered by year-quarter. *, **, *** indicate statistical significance at the 10%, 5%, and 1% levels, respectively, using a two-tailed t-test.

| Dependent Variable                  | Pr. Sign | Activism Campaign | Failed Deal |
|-------------------------------------|----------|-------------------|-------------|
| Positive Returns Spillover          | +        | 0.051***          | 0.093**     |
|                                     |          | (3.07)            | (2.14)      |
| Negative Returns Spillover          | +        | 0.061             | 0.019       |
|                                     |          | (1.52)            | (0.64)      |
| Target BTM                          | -0.006   | -0.073            | -1.64       |
|                                     | (-0.41)  |                   |             |
| Target ROA                          | -0.106***| -0.179            | -1.49       |
|                                     | (-2.72)  |                   |             |
| Target Firm Age                     | 0.016**  | 0.018             |             |
|                                     | (2.06)   |                   |             |
| Target Return                       | 0.013    | -0.097***         |             |
|                                     | (0.60)   |                   |             |
| Acquirer BTM                        | -0.080** | -0.079            | -1.04       |
|                                     | (-2.23)  |                   |             |
| Relative Size                       | 0.103    | 0.676***          |             |
|                                     | (1.11)   |                   |             |
| Horizontal Merger                   | 0.009    | -0.058            |             |
|                                     | (0.50)   |                   | (-0.84)     |
| Vertical Merger                     | 0.025    | -0.077            |             |
|                                     | (1.51)   |                   | (-0.91)     |
| Year-quarter fixed effects          | Yes      |                   | Yes         |
| Industry fixed effects (NAICS 2-digit) | Yes    |                   | Yes         |
| S.E. clustered by year-quarter      | Yes      |                   | Yes         |
| No. of observations                | 482      |                   | 482         |
| No. of acquisitions                | 482      |                   | 482         |
| Adj. R-squared                     | 5.5%     |                   | 11.4%       |