**INTERNET APPENDIX**

for

“**Contracting Under Asymmetric Information:**

**Evidence from Lockup Agreements in Seasoned Equity Offerings**”

June 27, 2013

This internet appendix reports on and tabulates a large number of robustness tests for the results reported in the main body of the paper. There are ten sections in this appendix. Section I reports the scree plot for the information asymmetry factor reported in Table 3, along with three alternative specifications of the information asymmetry factor and their associated scree plots, using variables in addition to the eight primitive measures of information asymmetry that are emphasized in the paper (firm size, time since IPO, number of analysts, tangible assets ratio, number of prior stock offers, bid-ask spread, return volatility, and accounting quality). Section II reports estimates analogous to those reported in Tables 5 and 6 of the paper using each of the eight individual asymmetry information measures separately, plus several additional information asymmetry measures (tobin’s q, underpricing, industry-adjusted return volatility, and analysts’ disagreement). Section III reports estimates analogous to those reported in Tables 5 and 6 of the paper using all eight asymmetry information measures together instead of the single information asymmetry factor. Section IV reports estimates analogous to those reported in Tables 5 – 6 of the paper, using *Net selling frequency and Net selling value* measured over one year before the SEO filing date, rather than the six month period used in the paper. Section V reports estimates analogous to those reported in Tables 5 – 6 of the paper, when the sample is restricted to firms with lockup periods less than 180 days. Section VI reports estimates analogous to those reported in Table 8 of the paper, constructing instruments based on the identity of the issuing firm’s law firm, rather than the lead underwriter’s law firm used in the paper. Section VII reports estimates from the tests reported in Tables 8 of the paper, including market illiquidity as an added control variable. Section VIII reports estimates analogous to those reported in Tables 8 and 9 of the paper, including underwriter spread and SEO underpricing as additional control variables. Section IX reports estimates from Table 5 – 6 of the paper, by controlling for the endogenous determination of the offer method on lockup agreement use and duration. Section X reports estimates of the effect of ex ante lockup days on the choice of the offer method. Section XI reports estimates of Tables 5, 8, and 9 of the paper when we use the longest lockup periods for the 51 SEOs in our sample that have multiple lockup periods, instead of using the shortest lockup periods to measure the ex ante lockup period length.

**Internet Appendix Section I**

Figure A1 presents the scree plot of Table 3. Figures A2 – A5 are analogous to those reported in Table 3 using three alternative specifications of the information asymmetry factor and also presents a scree plot for each specification.

**Figure A1. Scree plot of Table 3.**

****

**Figure A2. Information asymmetry factor analysis adding additional information asymmetry variables including Tobin’s q, underpricing, industry-adjusted return volatility, and analyst’s disagreement.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Predicted correlation with info asymmetry | Factor 1 | Factor 2 | Factor 3 | KMO |
|  |  |  |  |  |  |
| Firm size | – | -0.8244 | 0.1283 | 0.0201 | 0.6654 |
| Time since IPO | – | -0.4860 | 0.1793 | 0.0707 | 0.8040 |
| No. of Analysts | – | -0.1855 | 0.1680 | 0.0600 | 0.4720 |
| Tangible assets | – | -0.2736 | -0.0433 | 0.2793 | 0.7334 |
| No. of prior stock offers | – | -0.4907 | 0.2087 | -0.0754 | 0.7937 |
| Bid-ask spread | + | 0.3684 | -0.2739 | 0.2953 | 0.5969 |
| Return volatility | + | 0.6463 | 0.3471 | 0.0631 | 0.6813 |
| Discretionary accruals | + | 0.3898 | -0.0055 | -0.0515 | 0.7581 |
| **Tobin's q** | **+** | **0.3045** | **0.2004** | **-0.2702** | **0.3254** |
| **Underpricing** | **+** | **0.1780** | **0.0452** | **-0.0288** | **0.3371** |
| **industry adjusted return volatility** | **+** | **0.2184** | **0.3900** | **0.2696** | **0.4533** |
| **Analysts’ disagreement** | **+** | **0.0287** | **-0.0777** | **-0.1464** | **0.2130** |
| KMO overall |  |  |  | 0.5864 |
|  |  |  |  |  |  |
| Eigenvalue | 2.1433 | 0.5181 | 0.1823 |  |
|  |  |  |  |  |  |



**Figure A3. Information asymmetry factor analysis including an accelerated SEO indicator variable.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Predicted correlation with info asymmetry | Factor 1 | Factor 2 | Factor 3 | KMO |
|  |  |  |  |  |  |
| Firm size | – | 0.8077 | -0.0511 | -0.0930 | 0.7305 |
| Time since IPO | – | 0.4930 | -0.0311 | 0.2111 | 0.8328 |
| No. of Analysts | – | 0.1262 | 0.0587 | -0.0650 | 0.5048 |
| Tangible assets | – | 0.2846 | -0.2020 | 0.1994 | 0.7877 |
| No. of prior stock offers | – | 0.5518 | 0.1389 | 0.1773 | 0.8321 |
| **Accelerated SEO** | **–** | **0.4781** | **0.2270** | **0.0252** | **0.8359** |
| Bid-ask spread | + | -0.4526 | -0.3000 | 0/1476 | 0.7288 |
| Return volatility | + | -0.5347 | 0.2350 | 0.1044 | 0.7640 |
| Discretionary accruals | + | -0.4089 | 0.2024 | 0.1744 | 0.8017 |
| KMO overall |  |  |  | 0.7782 |
|  |  |  |  |  |  |
| Eigenvalue | 2.1680 | 0.3048 | 0.1923 |  |
|   |   |   |   |   |   |



**Figure A4. Information asymmetry factor analysis excluding tangible assets and bid-ask spread**.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Variable | Predicted correlation with info asymmetry | Factor 1 | Factor 2 | Factor 3 | KMO |
|  |  |  |  |  |  |
| Firm size | – | 0.7658 | -0.0410 | -0.0037 | 0.6735 |
| Time since IPO | – | 0.4968 | 0.2029 | 0.0051 | 0.7783 |
| No. of Analysts | – | 0.1820 | -0.0104 | 0.0672 | 0.6514 |
| No. of prior stock offers | – | 0.5127 | 0.2284 | -0.0005 | 0.7391 |
| Return volatility | + | -0.5667 | 0.1758 | 0.0093 | 0.7266 |
| Discretionary accruals | + | -0.4470 | 0.1940 | -0.0103 | 0.7694 |
| KMO overall |  |  |  | 0.7227 |
|  |  |  |  |  |  |
| Eigenvalue | 1.6174 | 0.1636 | 0.0047 |  |
|   |   |   |   |   |   |



**Internet Appendix Section II:**

Tables A1 – A2 report estimates analogous to those reported in Tables 5 and 6 of the paper using the eight individual asymmetry information measures (firm size, time since IPO, number of analysts, tangible assets ratio, number of prior stock offers, bid-ask spread, return volatility and accounting quality) used in the factor analysis, as well as several additional information asymmetry measures (tobin’s q, underpricing, industry-adjusted return volatility, and analysts’ disagreement). To conserve space, the other control variables in model (3) are not shown.

**Table A1. Determinants of SEO Lockup Agreements**

This table presents the estimates from nine specifications of a rare event logit model using data from SEOs from 1996 through 2006. The (untransformed) dependent variable equals one when an issuer adopts a lockup agreement. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All regressions include a constant plus year and industry fixed effects. All tests use White heteroskedasticity robust standard errors with adjustment for SEO clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Full Sample | Conventional SEOs | Accelerated SEOs |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Firm size** | -0.204\*\*\* | -0.201\*\*\* | -0.286\*\*\* | -0.181\*\*\* | -0.175\*\*\* | -0.261\*\*\* | -0.079\*\* | -0.172\* | -0.596\*\*\* |
|  | [0.000] | [0.000] | [0.000] | [0.000] | [0.000] | [0.000] | [0.031] | [0.060] | [0.002] |
| Insider ownership % |  | 0.004 | 0.005 |  | 0.005 | 0.007 |  | -0.007 | -0.012\* |
|  |  | [0.379] | [0.310] |  | [0.362] | [0.252] |  | [0.350] | [0.070] |
| Net selling frequency |  | 0.111\*\* | 0.098\*\* |  | 0.109\*\* | 0.096\* |  | 0.152 | 0.158 |
|  |  | [0.016] | [0.048] |  | [0.019] | [0.053] |  | [0.341] | [0.334] |
| Net selling value |  | 0.001\* | 0.001 |  | 0.001\* | 0.001 |  | 0.043\*\* | 0.0031\*\* |
|  |  | [0.074] | [0.274] |  | [0.072] | [0.237] |  | [0.042] | [0.036] |
| Accelerated SEOs |  |  | -0.298\* |  |  |  |  |  |  |
|  |  |  | [0.090] |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  |  |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Time since IPO** | -0.008\*\* | -0.007\* | -0.007\* | -0.009\*\* | -0.008\* | -0.009\* | -0.009\*\* | -0.008 | -0.001\* |
|  | [0.013] | [0.075] | [0.096] | [0.018] | [0.087] | [0.085] | [0.019] | [0.347] | [0.094] |
| Insider ownership % |  | 0.006 | 0.005 |  | 0.006 | 0.006 |  | -0.006 | -0.006\* |
|  |  | [0.190] | [0.303] |  | [0.262] | [0.265] |  | [0.311] | [0.075] |
| Net selling frequency |  | 0.074\* | 0.096\*\* |  | 0.074\* | 0.092\* |  | 0.109 | 0.08 |
|  |  | [0.081] | [0.044] |  | [0.097] | [0.053] |  | [0.308] | [0.488] |
| Net selling value |  | -0.001 | 0.001 |  | -0.001 | 0.001 |  | 0.032 | 0.003\* |
|  |  | [0.169] | [0.432] |  | [0.159] | [0.403] |  | [0.636] | [0.095] |
| Accelerated SEOs |  |  | -0.620\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.001] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **No. of analysts** | -0.006\* | -0.015\* | -0.031\* | -0.010\* | -0.021\* | -0.032 | -0.031\* | -0.001 | -0.090\* |
|  | [0.075] | [0.090] | [0.090] | [0.052] | [0.086] | [0.108] | [0.047] | [0.977] | [0.-94] |
| Insider ownership % |  | 0.006 | 0.005 |  | 0.005 | 0.006 |  | -0.006 | -0.007\* |
|  |  | [0.180] | [0.286] |  | [0.266] | [0.257] |  | [0.292] | [0.091] |
| Net selling frequency |  | 0.075\* | 0.095\* |  | 0.074 | 0.091\* |  | 0.103 | 0.084\* |
|  |  | [0.081] | [0.051] |  | [0.102] | [0.062] |  | [0.339] | [0.092] |
| Net selling value |  | -0.000 | 0.001 |  | -0.001 | 0.001 |  | 0.053\* | 0.003\* |
|  |  | [0.169] | [0.498] |  | [0.163] | [0.474] |  | [0.098] | [0.097] |
| Accelerated SEOs |  |  | -0.663\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Tangible assets** | -0.026\* | -0.033\* | -0.026\* | -0.034\* | -0.154 | -0.125\* | -0.660\*\* | -1.150\*\*\* | -1.214\*\*\* |
|  | [0.081] | [0.099] | [0.056] | [0.072] | [0.259] | [0.084] | [0.016] | [0.002] | [0.003] |
| Insider ownership % |  | 0.007 | 0.005 |  | 0.006 | 0.006 |  | -0.005\*\* | -0.008\* |
|  |  | [0.167] | [0.293] |  | [0.280] | [0.281] |  | [0.033] | [0.072] |
| Net selling frequency |  | 0.097\*\* | 0.097\*\* |  | 0.096\*\* | 0.093\* |  | 0.131 | 0.102 |
|  |  | [0.023] | [0.041] |  | [0.030] | [0.052] |  | [0.142] | [0.288] |
| Net selling value |  | -0.001 | 0.001 |  | -0.000 | 0.001 |  | 0.062\*\* | 0.003\* |
|  |  | [0.175] | [0.460] |  | [0.172] | [0.430] |  | [0.038] | [0.054] |
| Accelerated SEOs |  |  | -0.650\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **No. of prior stock offers** | -0.157\*\*\* | -0.115\*\*\* | -0.072\*\* | -0.191\*\*\* | -0.148\*\*\* | -0.119\*\*\* | -0.01 | -0.013 | -0.044 |
|  | [0.000] | [0.000] | [0.043] | [0.000] | [0.000] | [0.004] | [0.821] | [0.812] | [0.641] |
| Insider ownership % |  | 0.005 | 0.005 |  | 0.005 | 0.006 |  | -0.006 | -0.011 |
|  |  | [0.273] | [0.321] |  | [0.352] | [0.294] |  | [0.297] | [0.500] |
| Net selling frequency |  | 0.073\* | 0.093\*\* |  | 0.073\* | 0.088\* |  | 0.100 | 0.097 |
|  |  | [0.081] | [0.047] |  | [0.097] | [0.062] |  | [0.332] | [0.419] |
| Net selling value |  | -0.001 | 0.001 |  | -0.000 | 0.001 |  | 0.012 | 0.003\* |
|  |  | [0.172] | [0.347] |  | [0.161] | [0.278] |  | [0.599] | [0.064] |
| Accelerated SEOs |  |  | -0.608\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.001] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Bid-ask spreads** | 0.062\* | 0.028\* | 0.04 | 0.040\* | 0.013\* | 0.031\* | 0.014 | 0.022 | 0.035 |
|  | [0.067] | [0.055] | [0.431] | [0.052] | [0.060] | [0.071] | [0.912] | [0.882] | [0.836] |
| Insider ownership % |  | 0.005 | 0.005 |  | 0.005 | 0.006 |  | -0.006 | -0.008\*\* |
|  |  | [0.237] | [0.310] |  | [0.328] | [0.272] |  | [0.308] | [0.031] |
| Net selling frequency |  | 0.079\* | 0.098\*\* |  | 0.078\* | 0.094\* |  | 0.100 | 0.083 |
|  |  | [0.064] | [0.040] |  | [0.083] | [0.050] |  | [0.344] | [0.472] |
| Net selling value |  | -0.000 | 0.001 |  | -0.000 | 0.001 |  | -0.002 | 0.003\* |
|  |  | [0.178] | [0.417] |  | [0.164] | [0.400] |  | [0.615] | [0.069] |
| Accelerated SEOs |  |  | -0.646\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Return volatility** | 18.214\*\*\* | 12.781\*\*\* | 10.787\*\* | 17.640\*\*\* | 9.684\*\*\* | 8.606\* | 3.070\* | 16.167\* | 13.952\* |
|  | [0.000] | [0.000] | [0.016] | [0.000] | [0.007] | [0.072] | [0.062] | [0.052] | [0.095] |
| Insider ownership % |  | 0.006 | 0.005 |  | 0.005 | 0.006 |  | -0.008\* | -0.006\* |
|  |  | [0.226] | [0.293] |  | [0.305] | [0.258] |  | [0.090] | [0.084] |
| Net selling frequency |  | 0.067 | 0.091\* |  | 0.070 | 0.088\* |  | 0.080 | 0.063 |
|  |  | [0.135] | [0.055] |  | [0.137] | [0.064] |  | [0.362] | [0.551] |
| Net selling value |  | -0.000 | 0.001 |  | -0.000 | 0.001 |  | 0.009\*\* | 0.003\*\* |
|  |  | [0.286] | [0.390] |  | [0.385] | [0.365] |  | [0.049] | [0.032] |
| Accelerated SEOs |  |  | -0.612\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.001] |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Discretionary accruals** | 0.445\*\* | 0.450\* | 0.181\*\* | 0.274\*\* | 0.237\*\* | 0.121\*\* | 0.141\* | 5.502\* | 0.979\* |
|  | [0.020] | [0.052] | [0.053] | [0.039] | [0.037] | [0.033] | [0.054] | [0.051] | [0.085] |
| Insider ownership % |  | 0.002 | 0.002 |  | -0.001 | -0.001 |  | -0.006\* | -0.003\*\* |
|  |  | [0.970] | [0.947] |  | [0.863] | [0.912] |  | [0.060] | [0.020] |
| Net selling frequency |  | 0.120\*\* | 0.142\*\* |  | 0.126\*\* | 0.142\*\* |  | -0.074 | -0.329 |
|  |  | [0.029] | [0.025] |  | [0.027] | [0.026] |  | [0.623] | [0.418] |
| Net selling value |  | -0.000\*\* | -0.001 |  | -0.001\* | 0.001\* |  | 0.010 | 0.060\*\* |
|  |  | [0.030] | [0.100] |  | [0.058] | [0.057] |  | [0.709] | [0.042] |
| Accelerated SEOs |  |  | -0.623\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.006] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Tobin's q** | 0.062\*\*\* | 0.067\*\*\* | 0.039\* | 0.047\*\* | 0.049\*\* | 0.031 | 0.094 | 0.315\*\* | 0.487\*\*\* |
|  | [0.001] | [0.004] | [0.084] | [0.015] | [0.025] | [0.156] | [0.134] | [0.028] | [0.006] |
| Insider ownership % |  | -0.008 | -0.006 |  | 0.007 | 0.007 |  | -0.005 | -0.003 |
|  |  | [0.103] | [0.232] |  | [0.185] | [0.218] |  | [0.528] | [0.713] |
| Net selling frequency |  | 0.095\*\* | 0.095\*\* |  | 0.094\*\* | 0.092\* |  | 0.066 | 0.028 |
|  |  | [0.029] | [0.042] |  | [0.034] | [0.051] |  | [0.541] | [0.830] |
| Net selling value |  | -0.000 | 0.001 |  | -0.000 | 0.001 |  | 0.000 | 0.001 |
|  |  | [0.122] | [0.465] |  | [0.125] | [0.430] |  | [0.620] | [0.525] |
|  |  |  | -0.639\*\*\* |  |  |  |  |  |  |
| Accelerated SEOs |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Industry adjusted** | 6.953\*\* | 9.732\*\* | 9.603\*\* | 17.379\*\* | 1.600\* | 1.565\* | 64.851\* | 7.664\*\*\* | 11.316\*\* |
| **return volatility** | [0.019] | [0.027] | [0.022] | [0.045] | [0.056] | [0.083] | [0.060] | [0.007] | [0.029] |
| Insider ownership % |  | 0.006 | 0.005 |  | 0.005 | 0.006 |  | -0.006 | -0.002 |
|  |  | [0.196] | [0.298] |  | [0.292] | [0.270] |  | [0.301] | [0.810] |
| Net selling frequency |  | 0.075\* | 0.095\*\* |  | 0.076\* | 0.092\* |  | 0.102 | 0.068 |
|  |  | [0.084] | [0.046] |  | [0.094] | [0.054] |  | [0.392] | [0.632] |
| Net selling value |  | -0.000 | 0.001 |  | -0.000 | 0.001 |  | -0.001 | 0.001 |
|  |  | [0.166] | [0.467] |  | [0.155] | [0.440] |  | [0.567] | [0.801] |
| Accelerated SEOs |  |  | -0.650\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Underpricing** | 0.583 | 7.325 | 18.335 | 0.813\*\* | 8.702 | 1.42 | 0.07 | 82.531\* | 85.375 |
|  | [0.115] | [0.709] | [0.409] | [0.038] | [0.688] | [0.952] | [0.923] | [0.065] | [0.133] |
| Insider ownership % |  | 0.006 | 0.005 |  | 0.005 | 0.006 |  | -0.005 | -0.004 |
|  |  | [0.229] | [0.337] |  | [0.298] | [0.268] |  | [0.372] | [0.677] |
| Net selling frequency |  | 0.077\* | 0.099\*\* |  | 0.076\* | 0.094\* |  | 0.074 | 0.057 |
|  |  | [0.077] | [0.038] |  | [0.097] | [0.051] |  | [0.431] | [0.618] |
| Net selling value |  | -0.000 | 0.001 |  | -0.000 | 0.001 |  | -0.000 | 0.001 |
|  |  | [0.349] | [0.431] |  | [0.456] | [0.428] |  | [0.419] | [0.951] |
| Accelerated SEOs |  |  | -0.656\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Analysts disagreement** | 0.136 | 0.228 | 0.236 | 0.344 | 0.368 | 0.331 | 0.129 | -0.012 | 0.33 |
|  | [0.676] | [0.591] | [0.569] | [0.499] | [0.563] | [0.577] | [0.659] | [0.963] | [0.900] |
| Insider ownership % |  | 0.013\* | 0.012\* |  | 0.012\* | 0.012\* |  | 0.002 | 0.019 |
|  |  | [0.054] | [0.068] |  | [0.088] | [0.086] |  | [0.842] | [0.651] |
| Net selling frequency |  | 0.039 | 0.026 |  | 0.035 | 0.019 |  | 0.030 | 0.274 |
|  |  | [0.413] | [0.607] |  | [0.495] | [0.728] |  | [0.500] | [0.172] |
| Net selling value |  | -0.001 | 0.001 |  | -0.000 | 0.001 |  | -0.000 | 0.001 |
|  |  | [0.544] | [0.510] |  | [0.526] | [0.460] |  | [0.367] | [0.879] |
| Accelerated SEOs |  |  | -0.641\*\* |  |  |  |  |  |  |
|  |  |  | [0.013] |  |  |  |  |  |  |

**Table A2. Determinants of the Lockup Period**

This table presents the estimates from nine specifications of a tobit model using data from SEOs from 1996 through 2006. The dependent variable equals the ex ante lockup period in calendar days. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All regressions include a constant plus year and industry fixed effects. All tests use White heteroskedasticity robust standard errors with adjustment for SEO clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Full Sample | Conventional SEOs | Accelerated SEOs |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Firm size** | -7.610\*\*\* | -7.345\*\*\* | -7.720\*\*\* | -7.000\*\*\* | -6.965\*\*\* | -7.754\*\*\* | -1.634\* | -2.271\*\*\* | -5.924\*\*\* |
|  | [0.000] | [0.000] | [0.000] | [0.000] | [0.000] | [0.000] | [0.051] | [0.010] | [0.000] |
| Insider ownership % |  | 0.187\* | 0.138 |  | 0.217\* | 0.159 |  | -0.023 | -0.052 |
|  |  | [0.077] | [0.193] |  | [0.090] | [0.224] |  | [0.867] | [0.695] |
| Net selling frequency |  | 0.186 | 0.079 |  | 0.037 | 0.309 |  | 1.600 | 2.05 |
|  |  | [0.818] | [0.922] |  | [0.968] | [0.736] |  | [0.299] | [0.173] |
| Net selling value |  | -0.003 | 0.002 |  | -0.001 | 0.002 |  | 0.014 | 0.015\* |
|  |  | [0.940] | [0.746] |  | [0.939] | [0.756] |  | [0.114] | [0.067] |
| Accelerated SEOs |  |  | -16.617\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Time since IPO** | -0.336\*\*\* | -0.221\*\* | -0.060\* | -0.479\*\*\* | -0.338\*\* | -0.263\* | -0.338\*\*\* | -0.271\*\*\* | -0.107\* |
|  | [0.000] | [0.028] | [0.072] | [0.000] | [0.021] | [0.084] | [0.000] | [0.002] | [0.067] |
| Insider ownership % |  | 0.305\*\*\* | 0.129 |  | 0.282\*\* | 0.135 |  | 0.069 | 0.001 |
|  |  | [0.004] | [0.229] |  | [0.027] | [0.306] |  | [0.591] | [0.996] |
| Net selling frequency |  | 0.220 | 0.274 |  | 0.210 | 0.501 |  | 1.400 | 1.725 |
|  |  | [0.447] | [0.736] |  | [0.504] | [0.589] |  | [0.351] | [0.261] |
| Net selling value |  | 0.002 | 0.002 |  | 0.001 | 0.001 |  | 0.013 | 0.013 |
|  |  | [0.878] | [0.993] |  | [0.888] | [0.992] |  | [0.127] | [0.123] |
| Accelerated SEOs |  |  | -22.836\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **No. of analysts** | -0.101\* | -0.050 | -0.141 | -0.065\* | -0.257 | -0.285 | -0.309 | -0.345 | -0.112 |
|  | [0.082] | [0.920] | [0.778] | [0.090] | [0.678] | [0.645] | [0.588] | [0.553] | [0.852] |
| Insider ownership % |  | 0.304\*\*\* | 0.128 |  | 0.271\*\* | 0.126 |  | 0.066 | 0 |
|  |  | [0.003] | [0.234] |  | [0.031] | [0.339] |  | [0.614] | [0.999] |
| Net selling frequency |  | 0.220\*\* | 0.261\*\* |  | 0.210 | 0.428 |  | 1.609 | 1.803 |
|  |  | [0.048] | [0.048] |  | [0.505] | [0.645] |  | [0.288] | [0.241] |
| Net selling value |  | 0.003 | 0.004 |  | 0.001 | 0.001 |  | 0.014 | 0.014 |
|  |  | [0.882] | [0.993] |  | [0.891] | [0.989] |  | [0.110] | [0.112] |
| Accelerated SEOs |  |  | -23.109\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Tangible assets** | -3.556\*\* | -4.811 | -0.278\* | -5.658 | -8.353\*\* | -6.374 | -8.422\*\*\* | -9.953\*\*\* | -10.669\*\*\* |
|  | [0.029] | [0.126] | [0.093] | [0.110] | [0.041] | [0.128] | [0.006] | [0.002] | [0.001] |
| Insider ownership % |  | 0.284\*\*\* | 0.127 |  | 0.258\*\* | 0.117 |  | 0.007 | -0.018 |
|  |  | [0.008] | [0.237] |  | [0.047] | [0.376] |  | [0.958] | [0.895] |
| Net selling frequency |  | 0.054\*\* | 0.267\*\* |  | 0.023 | 0.485 |  | 1.186 | 1.701 |
|  |  | [0.048] | [0.042] |  | [0.980] | [0.601] |  | [0.439] | [0.262] |
| Net selling value |  | 0.004 | 0.005 |  | 0.001 | 0.001 |  | 0.012 | 0.012 |
|  |  | [0.875] | [0.993] |  | [0.879] | [0.985] |  | [0.146] | [0.152] |
| Accelerated SEOs |  |  | -23.095\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **No. of prior stock offers** | -8.351\*\*\* | -6.133\*\*\* | -3.482\*\*\* | -10.888\*\*\* | -7.790\*\*\* | -5.748\*\*\* | -1.716\*\*\* | -2.069\*\*\* | -1.799\*\* |
|  | [0.000] | [0.000] | [0.000] | [0.000] | [0.000] | [0.000] | [0.004] | [0.001] | [0.011] |
| Insider ownership % |  | 0.254\*\* | 0.131 |  | 0.253\*\* | 0.137 |  | 0.043 | -0.006 |
|  |  | [0.013] | [0.221] |  | [0.042] | [0.295] |  | [0.736] | [0.966] |
| Net selling frequency |  | 0.185\*\* | 0.251\* |  | 0.180 | 0.418 |  | -1.469 | -1.754 |
|  |  | [0.017] | [0.056] |  | [0.562] | [0.650] |  | [0.327] | [0.250] |
| Net selling value |  | 0.005 | 0.002 |  | 0.001 | 0.001 |  | 0.012 | 0.013 |
|  |  | [0.918] | [0.952] |  | [0.929] | [0.937] |  | [0.143] | [0.120] |
| Accelerated SEOs |  |  | -19.434\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Bid-ask spreads** | 11.071\*\*\* | 10.921\*\*\* | 7.622\*\*\* | 10.210\*\*\* | 10.637\*\*\* | 6.892\*\*\* | 0.339 | 0.317 | 4.378 |
|  | [0.000] | [0.000] | [0.000] | [0.000] | [0.000] | [0.000] | [0.912] | [0.918] | [0.283] |
| Insider ownership % |  | 0.179\* | 0.102 |  | 0.132 | 0.107 |  | 0.061 | -0.007 |
|  |  | [0.093] | [0.342] |  | [0.312] | [0.413] |  | [0.642] | [0.957] |
| Net selling frequency |  | 0.123 | 0.341 |  | 0.110 | 0.469 |  | 1.669 | 1.7 |
|  |  | [0.669] | [0.672] |  | [0.724] | [0.611] |  | [0.273] | [0.269] |
| Net selling value |  | 0.002 | 0.001 |  | 0.001 | 0.001 |  | 0.013 | 0.013 |
|  |  | [0.647] | [0.863] |  | [0.688] | [0.902] |  | [0.126] | [0.113] |
| Accelerated SEOs |  |  | -22.096\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Return volatility** | 636.535\*\*\* | 395.074\*\*\* | 389.296\*\*\* | 515.692\*\*\* | 225.891\*\* | 313.512\*\* | 338.817\*\*\* | 442.448\*\*\* | 600.290\*\*\* |
|  | [0.000] | [0.000] | [0.000] | [0.000] | [0.029] | [0.014] | [0.002] | [0.000] | [0.000] |
| Insider ownership % |  | 0.262\*\* | 0.129 |  | 0.241\* | 0.133 |  | 0.017 | -0.034 |
|  |  | [0.013] | [0.225] |  | [0.064] | [0.308] |  | [0.897] | [0.795] |
| Net selling frequency |  | 0.244\*\* | 0.223\* |  | 0.219 | 0.401 |  | 1.723 | 1.653 |
|  |  | [0.032] | [0.082] |  | [0.483] | [0.662] |  | [0.252] | [0.276] |
| Net selling value |  | -0.001 | 0.001 |  | -0.001 | 0.001 |  | 0.012 | 0.013 |
|  |  | [0.847] | [0.975] |  | [0.862] | [0.974] |  | [0.138] | [0.108] |
| Accelerated SEOs |  |  | -21.699\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Discretionary accruals** | 36.161\*\*\* | 36.775\*\*\* | 31.907\*\*\* | 33.423\*\*\* | 34.780\*\*\* | 30.282\*\*\* | 16.968\*\* | 16.021\*\* | 11.136\*\* |
|  | [0.000] | [0.000] | [0.000] | [0.000] | [0.000] | [0.003] | [0.029] | [0.034] | [0.048] |
| Insider ownership % |  | 0.090 | -0.023 |  | 0.109 | -0.016 |  | -0.158 | -0.193 |
|  |  | [0.530] | [0.870] |  | [0.529] | [0.924] |  | [0.343] | [0.247] |
| Net selling frequency |  | 0.615\* | 1.036\*\* |  | 0.599 | 1.317 |  | -1.332 | -2.222 |
|  |  | [0.078] | [0.028] |  | [0.628] | [0.264] |  | [0.510] | [0.268] |
| Net selling value |  | -0.001 | -0.001 |  | -0.000 | -0.001 |  | 0.003 | 0.014 |
|  |  | [0.954] | [0.807] |  | [0.971] | [0.806] |  | [0.886] | [0.478] |
| Accelerated SEOs |  |  | -18.320\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Tobin's q** | 0.527\*\* | 0.805\*\*\* | 0.788 | 0.389 | 0.573\* | 0.732 | 0.339 | 2.121\*\*\* | 1.741\* |
|  | [0.032] | [0.008] | [0.122] | [0.177] | [0.088] | [0.209] | [0.296] | [0.009] | [0.085] |
| Insider ownership % |  | 0.298\*\*\* | 0.134 |  | 0.280\*\* | 0.134 |  | -0.016 | -0.016 |
|  |  | [0.006] | [0.214] |  | [0.031] | [0.311] |  | [0.903] | [0.904] |
| Net selling frequency |  | 0.119 | 0.241 |  | 0.080 | 0.418 |  | 1.634 | -1.874 |
|  |  | [0.886] | [0.767] |  | [0.932] | [0.652] |  | [0.289] | [0.221] |
| Net selling value |  | 0.003 | 0.003 |  | 0.001 | 0.001 |  | 0.013 | 0.014 |
|  |  | [0.915] | [0.970] |  | [0.930] | [0.968] |  | [0.120] | [0.111] |
| Accelerated SEOs |  |  | -22.998\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Industry adjusted** | 417.993\*\* | 66.649\*\*\* | 62.517\*\*\* | 101.458 | 55.664\*\*\* | 63.567\*\*\* | 3,073.646\*\*\* | 166.666\*\*\* | 145.147\*\*\* |
| **return volatility** | [0.045] | [0.000] | [0.000] | [0.877] | [0.001] | [0.000] | [0.000] | [0.000] | [0.000] |
| Insider ownership % |  | 0.283\*\*\* | 0.121 |  | 0.252\* | 0.119 |  | 0.032 | -0.016 |
|  |  | [0.008] | [0.258] |  | [0.056] | [0.366] |  | [0.804] | [0.905] |
| Net selling frequency |  | 0.267 | 0.261 |  | 0.250 | 0.43 |  | -1.568 | -1.597 |
|  |  | [0.357] | [0.748] |  | [0.429] | [0.641] |  | [0.294] | [0.292] |
| Net selling value |  | 0.002 | 0.002 |  | 0.001 | 0.001 |  | 0.013 | 0.013 |
|  |  | [0.978] | [0.953] |  | [0.977] | [0.952] |  | [0.134] | [0.127] |
| Accelerated SEOs |  |  | -22.702\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Underpricing** | 44.463\*\*\* | 469.679\*\* | 984.276 | 47.445\*\*\* | 777.928 | 378.808 | 27.661 | 639.120\*\*\* | 178.042\*\*\* |
|  | [0.000] | [0.024] | [0.130] | [0.000] | [0.313] | [0.623] | [0.176] | [0.000] | [0.001] |
| Insider ownership % |  | 0.267\*\* | 0.122 |  | 0.231\* | 0.122 |  | 0.093 | 0.022 |
|  |  | [0.013] | [0.257] |  | [0.079] | [0.356] |  | [0.475] | [0.868] |
| Net selling frequency |  | 0.197 | 0.299 |  | 0.187 | 0.451 |  | -1.682 | -1.799 |
|  |  | [0.494] | [0.713] |  | [0.552] | [0.627] |  | [0.263] | [0.236] |
| Net selling value |  | -0.001 | 0.001 |  | -0.001 | 0.001 |  | 0.011 | 0.012 |
|  |  | [0.858] | [0.979] |  | [0.870] | [0.982] |  | [0.181] | [0.165] |
| Accelerated SEOs |  |  | -23.009\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| **Analysts disagreement** | 1.600 | 0.625 | 3.145 | 6.311 | 3.112 | 3.395 | -2.646 | -2.703 | -9.382 |
|  | [0.873] | [0.954] | [0.775] | [0.637] | [0.847] | [0.838] | [0.771] | [0.465] | [0.325] |
| Insider ownership % |  | 0.298\*\* | 0.143 |  | 0.237 | 0.113 |  | 0.035 | 0.068 |
|  |  | [0.029] | [0.329] |  | [0.161] | [0.533] |  | [0.876] | [0.683] |
| Net selling frequency |  | 1.297\* | 0.079 |  | -1.159 | 0.587 |  | 0.023 | 0.043 |
|  |  | [0.095] | [0.960] |  | [0.543] | [0.774] |  | [0.897] | [0.445] |
| Net selling value |  | 0.001 | 0.001 |  | 0.001 | 0.001 |  | -0.053 | 0.063 |
|  |  | [0.330] | [0.635] |  | [0.405] | [0.662] |  | [0.761] | [0.897] |
| Accelerated SEOs |  |  | -23.503\*\*\* |  |  |  |  |  |  |
|  |  |  | [0.000] |  |  |  |  |  |  |

**Internet Appendix Section III:**

Tables A3 – A4 report estimates from the tests reported in Tables 5 – 6 of the paper, using all eight asymmetry information measures separately (firm size, time since IPO, number of analysts, ratio of tangible assets, number of prior stock offers, bid-ask spreads, return volatility, and accounting quality) used in the analysis instead of the single information asymmetry factor. To conserve space, the other control variables are not shown.

**Table A3. Determinants of SEO Lockup Agreements**

Estimates are for the nine specifications of a rare event logit model using data from SEOs from 1996 through 2006. The (untransformed) dependent variable equals one when an issuer adopts a lockup agreement. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All tests use White heteroskedasticity robust standard errors with adjustment for clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |
| --- | --- | --- | --- |
|   | Full Sample | Conventional SEOs | Accelerated SEOs |
| VARIABLES | (1) | (2) | (3) |
| Firm size | -0.521\*\*\* | -0.519\*\*\* | -0.563\*\*\* |
|  | [0.000] | [0.000] | [0.003] |
| Time since IPO | -0.005 | -0.006 | -0.004 |
|  | [0.452] | [0.433] | [0.739] |
| No. of analysts | -0.032 | -0.028 | -0.034 |
|  | [0.198] | [0.282] | [0.558] |
| Tangible assets | -0.021 | -0.195 | -0.712\* |
|  | [0.907] | [0.286] | [0.054] |
| No. of prior stock offers | -0.013\*\* | -0.012\* | -0.027\* |
|  | [0.024] | [0.039] | [0.086] |
| bid-ask spread | 0.068 | 0.084 | 0.022\* |
|  | [0.300] | [0.234] | [0.086] |
| Return volatility | 0.085\*\* | 2.034\*\* | 13.076\* |
|  | [0.018] | [0.025] | [0.052] |
| Discretionary accruals | 0.857\*\* | 0.884\*\* | 1.160 |
|  | [0.033] | [0.031] | [0.544] |
| Insider ownership % | -0.005 | -0.005 | -0.036\*\* |
|  | [0.440] | [0.509] | [0.048] |
| Net selling frequency | 0.166\*\* | 0.170\*\* | 0.205 |
|  | [0.017] | [0.016] | [0.479] |
| Net selling value |  0.001\* |  0.001\* |  0.005\*\*\* |
|  | [0.095] | [0.079] | [0.006] |
| Accelerated SEOs | -0.021 |  |  |
|  | [0.929] |  |  |
| Constant | 2.324\*\*\* | 2.723\*\*\* | 1.758 |
|  | [0.000] | [0.000] | [0.228] |
| Year fixed effects | Yes | Yes | Yes |
| Industry fixed effects  | Yes | Yes | Yes |
| Observations | 1,597 | 1,096 | 501 |
| Pseudo R2 | 0 .267 |  0.218 |  0.491 |

**Table A4. Determinants of the Lockup Period**

This table presents the estimates from nine specifications of a tobit model using data from SEOs from 1996 through 2006. The dependent variable equals the ex ante lockup period in calendar days. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All tests use White heteroskedasticity robust standard errors with adjustment for clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |
| --- | --- | --- | --- |
|   | Full Sample | Conventional SEOs | Accelerated SEOs |
| VARIABLES | (1) | (2) | (3) |
|   |   |   |   |
| Firm size | -11.797\*\*\* | -11.720\*\*\* | -9.399\*\*\* |
|  | [0.000] | [0.000] | [0.000] |
| Time since IPO | -0.229 | -0.223 | -0.145 |
|  | [0.110] | [0.242] | [0.199] |
| No. of analysts | 0.438 | 0.399 | 0.433 |
|  | [0.458] | [0.574] | [0.448] |
| Tangible assets | -1.018 | -0.387 | -3.622 |
|  | [0.802] | [0.939] | [0.335] |
| No. of prior stock offers | -1.238 | -2.536 | -0.383 |
|  | [0.354] | [0.171] | [0.698] |
| Bid-ask spreads | 5.535\*\*\* | 4.805\*\* | 2.127\* |
|  | [0.003] | [0.019] | [0.051] |
| Return volatility | 58.637\*\* | 44.080\*\* | 165.311\* |
|  | [0.023] | [0.037] | [0.083] |
| Discretionary accruals | 3.338\*\* | 3.531\*\* | 13.227\* |
|  | [0.020] | [0.037] | [0.092] |
| Insider ownership % | -0.095 | -0.067 | -0.277\*\* |
|  | [0.492] | [0.690] | [0.041] |
| Net selling frequency | 1.214\*\* | 1.632\* | 0.298\*\* |
|  | [0.037] | [0.056] | [0.038] |
| Net selling value | -0.003 | -0.003 | -0.003 |
|  | [0.554] | [0.551] | [0.757] |
| Accelerated SEOs | -8.159\* |  |  |
|  | [0.052] |  |  |
| Constant | 110.176\*\*\* | 127.903\*\*\* | 71.980\*\*\* |
|  | [0.000] | [0.000] | [0.000] |
| Year fixed effects | Yes | Yes | Yes |
| Industry fixed effects  | Yes | Yes | Yes |
| Observations | 1,597 | 1,096 | 501 |
| Pseudo R2 | 0 .018 |  0.016 |  0.046 |

**Internet Appendix Section IV:**

Tables A5 – A6 report analogous estimates to those reported in Tables 5 and 6 of the paper using *Net selling frequency and Net selling value* measured over one year before the SEO filing date.

**Table A5. Determinants of SEO Lockup Agreements**

This table presents the estimates from nine specifications of a rare event logit model using data from SEOs from 1996 through 2006. The (untransformed) dependent variable equals one when an issuer adopts a lockup agreement. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All regressions include a constant plus year and industry fixed effects. All tests use White heteroskedasticity robust standard errors with adjustment for clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Full Sample | Conventional SEOs | Accelerated SEOs |
| VARIABLES | (1) | (2) | (3) |
| Information asymmetry | 0.468\*\*\* | 0.463\*\*\* | 0.476\*\* |
|  | [0.000] | [0.000] | [0.024] |
| Insider ownership % | -0.003 | -0.003 | -0.085\* |
|  | [0.644] | [0.700] | [0.094] |
| Net selling frequency | 0.194\*\*\* | 0.203\*\*\* | 0.765\* |
|  | [0.005] | [0.004] | [0.084] |
| Net selling value |  0.002\* |  0.003\*\* |  0.021 |
|  | [0.091] | [0.015] | [0.125] |
| Accelerated SEOs | -0.244 |  |  |
|  | [0.381] |  |  |
| Leverage | 0.522 | 0.608 | 0.728 |
|  | [0.144] | [0.115] | [0.443] |
| Share turnover | -0.153\* | -0.152\* | -0.072 |
|  | [0.072] | [0.081] | [0.811] |
| Log (proceeds) | 0.219\*\* | 0.232\*\* | 0.239\*\* |
|  | [0.018] | [0.019] | [0.030] |
| Underwriter rank | -0.036 | -0.049 | -0.276 |
|  | [0.481] | [0.349] | [0.132] |
| Secondary shares (%) | -0.001 | -0.001 | -0.012\* |
|  | [0.448] | [0.690] | [0.080] |
| ROA | -0.039 | -0.036 | -1.058 |
|  | [0.896] | [0.907] | [0.451] |
| Constant | 0.525 | 0.554 | 1.779 |
|  | [0.302] | [0.296] | [0.327] |
| Year fixed effects | Yes | Yes | Yes |
| Industry fixed effects | Yes | Yes | Yes |
| Observations | 1,597 | 1,096 | 501 |
| Pseudo R2 | 0 .254 | 0.202 | 0.329 |

**Table A6. Determinants of the Lockup Period**

This table presents the estimates from nine specifications of a tobit model using data from SEOs from 1996 through 2006. The dependent variable equals the ex ante lockup period in calendar days. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All tests use White heteroskedasticity robust standard errors with adjustment for clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |
| --- | --- | --- | --- |
|  | Full Sample | Conventional SEOs | Accelerated SEOs |
| VARIABLES | (1) | (2) | (3) |
|  |  |  |  |
| Information asymmetry | 14.408\*\*\* | 15.748\*\*\* | 10.187\*\*\* |
|  | [0.000] | [0.000] | [0.000] |
| Insider ownership % | 0.027 | 0.069 | -0.210 |
|  | [0.852] | [0.705] | [0.130] |
| Net selling frequency | 1.503\* | 2.038\* | -0.161 |
|  | [0.060] | [0.093] | [0.851] |
| Net selling value | 0.001 | 0.024 | 0.008 |
|  | [0.923] | [0.244] | [0.383] |
| Accelerated SEOs | -10.767\*\* |  |  |
|  | [0.022] |  |  |
| Leverage | 16.330\*\* | 21.136\*\* | 8.790 |
|  | [0.024] | [0.017] | [0.156] |
| Share turnover | -5.616\*\*\* | -5.398\*\* | -2.986 |
|  | [0.005] | [0.018] | [0.126] |
| Log (proceeds) | 2.181 | 0.472 | 6.801\*\*\* |
|  | [0.342] | [0.862] | [0.003] |
| Underwriter rank | -0.161 | -0.005 | -1.489 |
|  | [0.885] | [0.997] | [0.177] |
| Secondary shares (%) | -0.066 | -0.019 | -0.123\*\*\* |
|  | [0.129] | [0.724] | [0.002] |
| ROA | 7.710 | 8.591 | -1.504 |
|  | [0.149] | [0.156] | [0.822] |
| Constant | 91.077\*\*\* | 92.979\*\*\* | 33.682\*\* |
|  | [0.000] | [0.000] | [0.042] |
| Year fixed effects | Yes | Yes | Yes |
| Industry fixed effects | Yes | Yes | Yes |
| Observations | 1,597 | 1,096 | 501 |
| Pseudo R2 | 0 .022 | 0.013 | 0.042 |

**Internet Appendix Section V:**

Table A7 reports estimates analogous to those reported in Tables 5 and 6 of the paper, by restricting the sample to firms with lockup periods less than 180 days.

**Table A7. Determinants of the SEO Lockup and Lockup Period**

The first three models present the estimates of a rare event logit, where the dependent variable equals one when an issuer adopts a lockup agreement. The last three models present the estimates of a tobit model, where the dependent variable equals the ex ante lockup period in calendar days. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All tests use White heteroskedasticity robust standard errors with adjustment for clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |
| --- | --- | --- |
|   | Table 4 | Table 5 |
|   | (1) | (2) | (3) | (4) | (5) | (6) |
| VARIABLES | Full  | Conventional | Accelerated | Full  | Conventional | Accelerated |
|   |   |   |   |   |   |   |
| Information asymmetry | 0.496\*\*\* | 0.515\*\*\* | 0.492\*\* | 11.017\*\*\* | 11.364\*\*\* | 7.858\*\* |
|  | [0.000] | [0.000] | [0.029] | [0.000] | [0.000] | [0.011] |
| Insider ownership % | -0.007 | -0.007 | -0.030 | -0.033 | -0.044 | -0.053 |
|  | [0.190] | [0.185] | [0.656] | [0.566] | [0.573] | [0.472] |
| Net selling frequency | 0.246\*\* | 0.230\*\* | 4.322 | 0.665\*\* | 0.892\*\* | 1.350\*\* |
|  | [0.031] | [0.039] | [0.232] | [0.032] | [0.022] | [0.037] |
| Net selling value |  0.001\* |  0.002\* | 0.232\*\* | -0.002 | -0.002 | 0.004 |
|  | [0.078] | [0.069] | [0.030] | [0.626] | [0.631] | [0.820] |
| Accelerated SEOs | -0.434\* |  |  | -11.471\*\*\* |  |  |
|  | [0.098] |  |  | [0.000] |  |  |
| Leverage | 0.399 | 0.524 | -1.722 | 5.242 | 8.514 | -3.016 |
|  | [0.176] | [0.122] | [0.596] | [0.236] | [0.105] | [0.686] |
| Share turnover | -0.159\*\* | -0.156\*\* | -0.795 | -3.727\*\*\* | -3.261\*\* | -4.152 |
|  | [0.027] | [0.049] | [0.318] | [0.002] | [0.014] | [0.133] |
| Log (proceeds) | 0.266\*\*\* | 0.279\*\*\* | 1.296\* | 5.409\*\*\* | 4.055\*\* | 6.280\*\* |
|  | [0.005] | [0.007] | [0.051] | [0.000] | [0.016] | [0.016] |
| Underwriter rank | -0.028 | -0.044 | -1.197 | -0.914 | -0.923 | -1.222 |
|  | [0.563] | [0.402] | [0.139] | [0.196] | [0.250] | [0.382] |
| Secondary shares (%) | -0.003 | -0.002 | -0.121\*\*\* | -0.103\*\*\* | -0.057\* | -0.201\*\*\* |
|  | [0.158] | [0.477] | [0.000] | [0.000] | [0.086] | [0.000] |
| ROA | -0.101 | 0.052 | -35.289\*\* | 6.241 | 7.600\* | 1.957 |
|  | [0.718] | [0.831] | [0.034] | [0.123] | [0.099] | [0.803] |
| Constant | 0.193 | 0.243 | -1.207 | 68.128\*\*\* | 71.664\*\*\* | 21.938 |
|  | [0.724] | [0.679] | [0.868] | [0.000] | [0.000] | [0.272] |
| Year fixed effects | Yes | Yes | Yes | Yes | Yes | Yes |
| Industry fixed effects  | Yes | Yes | Yes | Yes | Yes | Yes |
| Observations | 1162 | 940 | 222 | 1162 | 940 | 222 |
| Pseudo R2 | 0.266 | 0.196 | 0.614 | 0.025 | 0.023 | 0.061 |

**Internet Appendix Section VI:**

Table A8 reports estimates analogous to those reported in Tables 8 of the paper, constructing instruments based on the identity of the issuing firm’s law firm.

**Table A8. Determinants of Underwriter Spreads**

This table presents the estimates from two-stage least squares (2SLS) using data from SEOs from 1996 through 2006. Models 1, 3, and 5 report the first-stage regression estimates in which the dependent variable is the ex ante lockup period in calendar days. Models 2, 4, and 6 report the corresponding second-stage regression estimates in which the dependent variable is the gross spread, measured as a percent of the offer price. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All regressions include a constant plus year and industry fixed effects. All tests use White heteroskedasticity robust standard errors with adjustment for clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |
| --- | --- | --- | --- |
|   |  Full Sample | Conventional SEOs  | Accelerated SEOs  |
|  | (1) | (2) | (3) | (4) | (5) | (6) |
|  | First Stage | Second Stage | First Stage | Second Stage | First Stage | Second Stage |
| Dependent variable: | Lockup days | Gross Spreads | Lockup days | Gross Spreads | Lockup days | Gross Spreads |
| *Explanatory variables:* |  |  |  |  |  |
| Ex ante lockup days |  | -0.026\*\* |  | -0.038\*\*\* |  | -0.027\*\* |
|  |  | [0.013] |  | [0.003] |  | [0.047] |
| Market illiquidity | 1.252\*\* |  | 1.281\*\* |  | 2.310\*\* |  |
|  | [0.050] |  | [0.035] |  | [0.027] |  |
| Issuers law firm  | Included |  | Included |  | Included |  |
| fixed effects |  |  |  |  |  |  |
| Information asymmetry | 14.411\*\*\* | 0.944\*\*\* | 15.322\*\*\* | 1.071\*\*\* | 9.552\*\*\* | 1.036\*\*\* |
|  | [0.000] | [0.000] | [0.000] | [0.000] | [0.005] | [0.000] |
| Insider ownership % | -0.033 | 0.003\* | 0.036 | 0.002 | -0.065 | -0.001 |
|  | [0.657] | [0.088] | [0.726] | [0.294] | [0.436] | [0.907] |
| Net selling frequency | 1.285\* | -0.025 | 1.785\* | 0.021 | -2.374 | -0.177\*\* |
|  | [0.071] | [0.063] | [0.083] | [0.437] | [0.288] | [0.040] |
| Net selling value | -0.003 | -0.000\* | -0.004 | -0.000\*\* | 0.016 | -0.003\*\* |
|  | [0.433] | [0.067] | [0.406] | [0.021] | [0.432] | [0.044] |
| Accelerated SEOs | -10.736\*\*\* | -1.804\*\*\* |  |  |  |  |
|  | [0.004] | [0.000] |  |  |  |  |
| Leverage | 12.664\*\* | 0.242 | 17.168\*\* | 0.643\*\*\* | 0.362 | -0.575 |
|  | [0.026] | [0.170] | [0.010] | [0.007] | [0.967] | [0.187] |
| Share turnover | -1.938 | -0.116\*\*\* | -1.150 | -0.070\*\*\* | -4.097 | -0.391\* |
|  | [0.142] | [0.001] | [0.429] | [0.009] | [0.160] | [0.075] |
| Log (proceeds) | 2.528 | -0.276\*\*\* | -0.639 | -0.476\*\*\* | 6.945\*\* | 0.211 |
|  | [0.170] | [0.000] | [0.769] | [0.000] | [0.013] | [0.325] |
| Underwriter rank | 0.528 | -0.006 | 0.401 | -0.001 | -0.093 | -0.086 |
|  | [0.570] | [0.767] | [0.707] | [0.937] | [0.953] | [0.297] |
| Secondary shares (%) | -0.031 | -0.008\*\*\* | 0.040 | -0.002\*\*\* | -0.206\*\*\* | -0.024\*\*\* |
|  | [0.374] | [0.000] | [0.341] | [0.004] | [0.000] | [0.000] |
| ROA | 5.376 | 0.013 | 5.647 | 0.113 | 1.191 | -0.171 |
|  | [0.274] | [0.909] | [0.306] | [0.297] | [0.893] | [0.708] |
| Constant | 78.993\*\*\* | 9.136\*\*\* | 91.963\*\*\* | 10.806\*\*\* | 4.844 | 8.759\*\*\* |
|  | [0.000] | [0.000] | [0.000] | [0.000] | [0.828] | [0.000] |
| Observations | 1597 | 1597 | 1096 | 1096 | 501 | 501 |
| R-squared | 0.154 | 0.598 | 0.143 | 0.536 | 0.346 | 0.446 |

**Internet Appendix Section VII:**

Table A9 reports estimates analogous to those reported in Tables 8 of the paper, including market illiquidity as an added control variable.

**Table A9. Determinants of Underwriter Spreads**

This table presents the estimates from two-stage least squares (2SLS) using data from SEOs from 1996 through 2006. The dependent variable is the gross spread, measured as the percentage of the offer price. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All tests use White heteroskedasticity robust standard errors with adjustment for clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |
| --- | --- | --- | --- |
|   | Full Sample | Conventional SEOs | Accelerated SEOs |
| VARIABLES | (1) | (2) | (3) |
|   |   |   |   |
| **Market illiquidity** | -0.036 | -0.033 | -0.074 |
|  | [0.137] | [0.141] | [0.177] |
| Ex ante lockup days | 0.004\*\*\* | 0.003\*\*\* | 0.011\*\*\* |
|  | [0.000] | [0.000] | [0.005] |
| Information asymmetry | 0.480\*\*\* | 0.407\*\*\* | 0.804\*\*\* |
|  | [0.000] | [0.000] | [0.000] |
| Insider ownership % | 0.004\*\* | 0.003\* | 0.001 |
|  | [0.020] | [0.059] | [0.847] |
| Net selling frequency | -0.060\*\*\* | -0.047\*\*\* | -0.250\*\* |
|  | [0.002] | [0.001] | [0.031] |
| Net selling value | -0.000 | -0.000 | -0.003\*\* |
|  | [0.405] | [0.624] | [0.010] |
| Accelerated SEOs | -1.481\*\*\* |  |  |
|  | [0.000] |  |  |
| Leverage | -0.103 | -0.010 | -0.724 |
|  | [0.387] | [0.919] | [0.120] |
| Share turnover | -0.044 | -0.007 | -0.270 |
|  | [0.117] | [0.735] | [0.150] |
| Log (proceeds) | -0.377\*\*\* | -0.481\*\*\* | 0.074 |
|  | [0.000] | [0.000] | [0.642] |
| Underwriter rank | -0.027 | -0.020 | -0.118 |
|  | [0.163] | [0.173] | [0.162] |
| Secondary shares (%) | -0.007\*\*\* | -0.004\*\*\* | -0.017\*\*\* |
|  | [0.000] | [0.000] | [0.000] |
| ROA | -0.194\* | -0.167\*\* | -0.227 |
|  | [0.056] | [0.032] | [0.629] |
| Constant | 6.855\*\*\* | 7.169\*\*\* | 8.716\*\*\* |
|  | [0.000] | [0.000] | [0.000] |
| Observations | 1,597 | 1,096 | 501 |
| R2 | 0 .603 | 0.570 | 0.520 |

**Internet Appendix Section VIII:**

Table A10 reports estimates analogous to those reported in Tables 8 of the paper, including underwriter spread and SEO underpricing as added control variables.

**A10. Determinants of Underwriter Spreads and Underpricing**

This table presents the estimates from two-stage least squares (2SLS) using data from SEOs from 1996 through 2006. The dependent variable of models 1-3 is the gross spread measured as a percent of the offer price and the dependent variable of models 4-6 is the degree of underpricing measured as a percent of the pre-offer price. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are presented in the paper’s Appendix. All tests use White heteroskedasticity robust standard errors with adjustment for clustering by SEO issuers. The p-values of the estimated coefficients are in brackets, and the symbols \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |
| --- | --- | --- |
|   | Gross spreads | Underpricing |
|   | Full  | Conventional | Accelerated | Full  | Conventional | Accelerated |
| VARIABLES | (1) | (2) | (3) | (4) | (5) | (6) |
| Lockup days | -0.023\*\* | -0.025\*\*\* | -0.024\*\* | -0.032\*\* | -0.055\*\* | -0.045\*\* |
|  | [0.012] | [0.003] | [0.038] | [0.043] | [0.026] | [0.031] |
| **Gross spreads** |  |  |  | **-0.091** | **0.311** |  **0.299\*\*** |
|  |  |  |  | **[0.716]** | **[0.453]** | **[0.031]** |
| **Underpricing** | **-0.001** | **0.002** |  **0.077\*\*** |  |  |  |
|  | **[0.823]** | **[0.362]** | **[0.046]** |  |  |  |
| Offer price integer |  |  |  | 1.916\*\*\* | 1.986\*\*\* | 1.067\*\* |
|  |  |  |  | [0.000] | [0.000] | [0.025] |
| Run-up |  |  |  | 0.406 | 0.399 | 2.726\* |
|  |  |  |  | [0.622] | [0.662] | [0.078] |
| Information asymmetry | 0.881\*\*\* | 0.844\*\*\* | 1.082\*\*\* | 1.602\*\* | 1.916\* | 0.639\* |
|  | [0.000] | [0.000] | [0.000] | [0.016] | [0.059] | [0.055] |
| Insider ownership % | 0.002 | 0.001 | -0.001 | 0.009 | 0.017 | -0.002 |
|  | [0.252] | [0.703] | [0.849] | [0.515] | [0.420] | [0.827] |
| Net selling frequency | -0.040\*\* | -0.018\*\* | -0.172\*\* | 0.177 | 0.288 | 0.040 |
|  | [0.046] | [0.022] | [0.046] | [0.286] | [0.204] | [0.804] |
| Net selling value | -0.000\* | -0.000\* | -0.003\*\* | 0.000 | -0.000 | -0.004 |
|  | [0.075] | [0.052] | [0.027] | [0.933] | [0.992] | [0.129] |
| Accelerated SEOs | -1.664\*\*\* |  |  | 1.261 |  |  |
|  | [0.000] |  |  | [0.170] |  |  |
| Leverage | 0.105 | 0.226\* | -0.594 | 1.853 | 2.621\* | -0.541 |
|  | [0.460] | [0.072] | [0.171] | [0.117] | [0.095] | [0.508] |
| Share turnover | -0.113\*\*\* | -0.063\*\* | -0.392\* | 0.004 | -0.018 | 0.050 |
|  | [0.002] | [0.015] | [0.074] | [0.990] | [0.957] | [0.904] |
| Log (proceeds) | -0.283\*\*\* | -0.440\*\*\* | 0.185 | -0.320 | -0.094 | -0.609 |
|  | [0.000] | [0.000] | [0.395] | [0.402] | [0.828] | [0.139] |
| Underwriter rank | -0.016 | -0.017 | -0.093 | 0.297\* | 0.365\* | -0.120 |
|  | [0.405] | [0.260] | [0.257] | [0.064] | [0.055] | [0.435] |
| Secondary shares (%) | -0.009\*\*\* | -0.004\*\*\* | -0.023\*\*\* | -0.016\*\* | -0.019\*\* | 0.009 |
|  | [0.000] | [0.000] | [0.000] | [0.027] | [0.012] | [0.378] |
| ROA | 0.100 | 0.161 | -0.497 | -1.125 | -0.404 | -4.162\*\*\* |
|  | [0.470] | [0.178] | [0.299] | [0.333] | [0.787] | [0.000] |
| Constant | 8.993\*\*\* | 9.550\*\*\* | 8.891\*\*\* | 45.412 | 43.623 | 276.722\* |
|  | [0.000] | [0.000] | [0.000] | [0.582] | [0.635] | [0.073] |
| Observations | 1597 | 1096 | 501 | 1597 | 1096 | 501 |
| R-squared | 0.918 | 0.908 | 0.793 | 0.063 | 0.058 | 0.496 |

**Internet Appendix Section IX:**

Table A11 reports alternative estimates of the main models in Table 5 – 6 of the paper, after controlling for the endogenous determination of the offer method (the use of accelerated SEOs) on lockup agreement use and duration using several alternative approaches.

**A11. IV Further Estimates of Lockup Determination and Length**

This table presents estimates from standard probit and two-stage IV probit models and 2SLS using SEO data for 1996 - 2006. Models 1 and 2 report the first-stage regression estimates, in which the dependent variable is one if an issuer uses an accelerated issue method and zero otherwise. Models 3 and 4 correspond to second stage regression estimates of the main models in Tables 5 and 6, and are based respectively on the Model 1 and 2 estimates reported below. The dependent variable in Model 3 is one if the issuer adopts a lockup agreement and zero otherwise. The dependent variable in Model 4 is the number of lockup days. The sample includes SEOs of U.S. common stocks listed on NYSE, NASDAQ, or AMEX, and exclude SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Demand inelasticity is measured by the natural log of the average daily inverse elasticity over the 250 trading-day window prior to the SEO filing date as:

$$A=\frac{1}{250}\sum\_{t=1}^{250}\frac{|Stock Raw Return\_{t}|}{Number of Shares Traded\_{t}/Number of Shares Outstanding\_{t}}$$

Relative offer size is measured by the offer proceeds divided by a firm’s market capitalization.

All other variable definitions are in the Appendix. All regressions include a constant plus year and industry fixed effects. All tests use White heteroskedasticity robust standard errors with adjustment for SEO clustering by issuers. Associated p-values are reported in brackets, and \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |
| --- | --- | --- |
|  | First stage | Second stage |
|  | Probit | Probit | IV Probit | 2 SLS |
| Dependent variable | Accelerated SEOs | Accelerated SEOs | Lockup | Lockup days |
|  | (1) | (2) | (3) | (4) |
|  |  |  |  |  |
| **Accelerated SEOs** |  | **-1.823** | **11.898\*\*** |
|  |  |  | **[0.121]** | **[0.046]** |
| Demand inelasticity | -0.065\*\* | -0.016\*\* |  |  |
|  | [0.048] | [0.028] |  |  |
| Relative offer size | -1.532\*\*\* |  |  |  |
|  | [0.000] |  |  |  |
| Information asymmetry | -0.863\*\*\* | -1.030\*\*\* | 0.586\*\*\* | 17.349\*\*\* |
|  | [0.000] | [0.000] | [0.000] | [0.000] |
| Insider ownership % | 0.001 | 0.001 | 0.005 |  0.024 |
|  | [0.754] | [0.790] | [0.167] | [0.768] |
| Net selling frequency | -0.069\*\* | -0.068\*\* | 0.147\*\* | 1.584\* |
|  | [0.040] | [0.039] | [0.012] | [0.086] |
| Net selling value | 0.001 | 0.000 | 0.001 | -0.002 |
|  | [0.871] | [0.801] | [0.800] | [0.637] |
| Leverage | 0.374 | -0.020 | -0.144 | 15.231\*\*\* |
|  | [0.136] | [0.932] | [0.518] | [0.009] |
| Share turnover | 0.181\*\* | 0.091 | -0.014\* | -3.548\*\* |
|  | [0.023] | [0.206] | [0.078] | [0.012] |
| Log (proceeds) | -0.326\*\*\* | -0.381\*\*\* | 0.057\*\* | 3.356\* |
|  | [0.000] | [0.000] | [0.047] | [0.086] |
| Underwriter rank | 0.02 | 0.041 | -0.021 | 0.516 |
|  | [0.640] | [0.310] | [0.593] | [0.585] |
| Secondary shares % | 0.001 | 0.001 | 0.001 | -0.037 |
|  | [0.285] | [0.385] | [0.259] | [0.305] |
| ROA | -0.948\*\*\* | -0.930\*\*\* | -0.676 | 19.006\* |
|  | [0.000] | [0.000] | [0.321] | [0.102] |
| Constant | -0.756 | -1.265\*\* | 1.128\*\*\* | 97.549\*\*\* |
|  | [0.204] | [0.025] | [0.010] | [0.000] |
|  |  |  |  |  |
| Year fixed effects | Yes | Yes | Yes | Yes |
| Industry fixed effects | Yes | Yes | Yes | Yes |
| Observations | 1,597 | 1,597 | 1,597 | 1,597 |
| Pseudo R2 | 0.364 | 0.342 | 0.243 | 0.019 |

**Internet Appendix Section X:**

Table A12 reports estimates of the effect of ex ante lockup days on the estimated determinants of the offer method choice (use of accelerated SEOs) using either observed or instrumented values for ex ante lockup days.

**A12. IV tests for SEO issue method choice**

This table presents estimates for both Probit and two-stage IV probit models using SEO data from 1996 - 2006. Model 1 is based on a Probit, where the dependent variable is one when an issuer uses an accelerated issue method. Model 2 reports first-stage regression estimates in which the dependent variable is the ex ante lockup period in calendar days to take into account potential endogeneity of this variable. Model 3 corresponds to the second stage regression estimates based on the Model 2 instrumented variable for ex ante lockup days. The dependent variable in Model 3 is one if the issuer uses an accelerated issue method and is zero otherwise. The sample includes SEOs of U.S. common stocks listed on NYSE, NASDAQ, or AMEX, and exclude SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are in the Appendix. All regressions include a constant plus year and industry fixed effects. All tests again use White heteroskedasticity robust standard errors with adjustment for SEO clustering by issuers. Associated p-values are reported in brackets, and \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |
| --- | --- | --- | --- |
|   | (1) | (2) | (3) |
|  | Probit | IV Probit |
|  |  | First stage | Second stage |
| Dependent variable: | Accelerated SEOs | Lockup days | Accelerated SEOs |
|   |   |   |   |
| **Ex ante lockup days** | **-0.009\*\*\*** |  | **-0.005** |
|  | **[0.000]** |  | **[0.762]** |
| Market illiquidity | 1.458\*\* |  |
|  |  | [0.017] |  |
| Underwriter law firm fixed effects | Included |  |
|  |  |  |  |
| Information asymmetry | -0.845\*\*\* | 14.989\*\*\* | -0.780\*\*\* |
| [0.000] | [0.000] | [0.006] |
| Insider ownership % | 0.000 | -0.071 | 0.000 |
|  | [0.888] | [0.314] | [0.901] |
| Net selling frequency | -0.091\*\* | 0.958 | -0.061\* |
| [0.039] | [0.281] | [0.099] |
| Net selling value | 0.000 | -0.004 | 0.000 |
|  | [0.837] | [0.409] | [0.960] |
| Leverage | 0.286 | 8.578 | 0.306 |
|  | [0.266] | [0.119] | [0.287] |
| Share turnover | 0.160\*\* | -2.217\* | 0.166\* |
|  | [0.049] | [0.079] | [0.059] |
| Log (proceeds) | -0.254\*\*\* | 3.351\* | -0.249\*\*\* |
|  | [0.002] | [0.060] | [0.008] |
| Underwriter rank | 0.012 | 0.118 | 0.012 |
|  | [0.791] | [0.897] | [0.785] |
| Secondary shares % | 0.000 | -0.043 | 0.001 |
|  | [0.894] | [0.193] | [0.644] |
| ROA | -0.960\*\*\* | 10.862\*\* | -0.868\*\*\* |
|  | [0.000] | [0.025] | [0.002] |
| Demand inelasticity | -0.116\*\* |  | -0.076\*\* |
|  | [0.015] |  | [0.026] |
| Relative offer size | -1.529\*\*\* |  | -1.618\*\*\* |
|  | [0.000] |  | [0.000] |
| Constant | -0.053 | 79.577\*\*\* | -0.317 |
|  | [0.933] | [0.000] | [0.849] |
|  |  |  |  |
| Year fixed effects | Yes | Yes | Yes |
| Industry fixed effects  | Yes | Yes | Yes |
| Observations | 1,597 | 1,597 | 1,597 |
| Pseudo R2 | 0.376 | 0.147 | 0.356 |

**Internet Appendix Section XI**:

Section XI reports estimates from Tables 5, 8, and 9 of the paper when we use the longest lockup periods for the 51 SEOs in our sample that have multiple lockup periods, instead of using the shortest lockup periods to measure the ex ante lockup period length.

**Table A13. Determinants of Underwriter Spreads and Underpricing**

This table presents the estimates from ordinary least squares (OLS) and two-stage least squares (2SLS) using data from SEOs from 1996 through 2006. Models 1and 4 are based on OLS and the dependent variable is the gross spread measured as a percent of the offer price and the degree of underpricing measured as a percent of the pre-offer price respectively. Other columns are based on 2SLS. Models 2 and 5 report the first-stage regression estimates in which the dependent variable is the ex ante lockup period in calendar days. Models 3 and 6 report the corresponding second-stage regression estimates in which the dependent variable is the gross spread and underpricing respectively. The sample criteria require the SEOs to be US common stocks listed on NYSE, NASDAQ, or AMEX, and exclude: SEOs lacking CRSP daily stock returns and COMPUSTAT annual financial statement data, rights, standbys, and best effort issues, ADRs, closed-end funds, unit investment trusts, REITs, limited partnerships, combined offers of common stock and other securities including unit offerings, and SEOs with offer prices less than $5. Variable definitions are in the Appendix. All regressions include a constant plus year and industry fixed effects. All tests use White heteroskedasticity robust standard errors with adjustment for SEO clustering by issuers. Associated p-values are reported in brackets, and \*\*\*, \*\*, and \* represent significance at the 1%, 5%, and 10% levels.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | (1) | (2) | (3) | (4) | (5) | (6) |
|  | OLS | 2SLS | OLS | 2SLS |
|  |  | First Stage | Second Stage |  | First Stage | Second Stage |
| Dependent variable: | Gross Spreads | Lockup days | Gross Spreads | Underpricing | Lockup days | Underpricing |
| Explanatory variables: |   |   |   |   |   |   |
| Ex ante lockup days | 0.004\*\*\* |  | -0.032\*\* | 0.016\*\*\* |  | -0.033\*\* |
|  | [0.001] |  | [0.024] | [0.001] |  | [0.025] |
| Market illiquidity |  | 2.306\*\* |  |  | 1.377\*\* |  |
|  |  | [0.028] |  |  | [0.034] |  |
| Underwriter law firm fixed effects |  | Included |  |  | Included |  |
| Offer price integer |  |  |  | 1.747\*\*\* | 0.786 | 1.916\*\*\* |
|  |  |  |  | [0.000] | [0.685] | [0.000] |
| Run-up |  |  |  | 0.564 | -0.354 | 0.406 |
|  |  |  |  | [0.487] | [0.856] | [0.622] |
| Information asymmetry | 0.911\*\*\* | 9.535\*\*\* | 1.004\*\*\* | 1.018\*\* | 10.800\*\*\* | 1.526\*\* |
|  | [0.000] | [0.005] | [0.000] | [0.013] | [0.000] | [0.020] |
| Insider ownership % | 0.001 | -0.065 | 0.001 | 0.010 | -0.051 | 0.010 |
|  | [0.870] | [0.433] | [0.733] | [0.428] | [0.504] | [0.479] |
| Net selling frequency | -0.271\*\* | 0.376\*\* | -0.157\*\* | 0.162 | 0.897\*\* | 0.180 |
|  | [0.021] | [0.028] | [0.038] | [0.326] | [0.046] | [0.286] |
| Net selling value | -0.003\*\* | 0.016 | -0.004\*\*\* | 0.000 | -0.004 | 0.000 |
|  | [0.018] | [0.432] | [0.009] | [0.675] | [0.382] | [0.958] |
| Accelerate SEOs | -1.657\*\*\* | -6.783 | -1.685\*\*\* | 2.093\*\*\* | -1.876 | 1.387\* |
|  | [0.000] | [0.102] | [0.000] | [0.001] | [0.624] | [0.082] |
| Leverage | -0.603 | 8.301 | -1.349\* | 1.399 | 8.079 | 1.850 |
|  | [0.188] | [0.972] | [0.088] | [0.154] | [0.169] | [0.116] |
| Share turnover | -0.306 | -4.170 | -0.526\* | 0.084 | -1.433 | 0.022 |
|  | [0.103] | [0.154] | [0.075] | [0.718] | [0.289] | [0.937] |
| Log (proceeds) | 0.151 | 7.074\*\* | 0.304 | -0.391 | 1.553 | -0.359 |
|  | [0.344] | [0.012] | [0.267] | [0.211] | [0.420] | [0.293] |
| Underwriter rank | -0.088 | -0.094 | -0.092 | 0.285\* | 0.265 | 0.301\* |
|  | [0.300] | [0.953] | [0.265] | [0.071] | [0.786] | [0.063] |
| Secondary shares % | -0.019\*\*\* | -0.208\*\*\* | -0.025\*\*\* | -0.012\*\* | -0.014 | -0.015\*\* |
|  | [0.000] | [0.000] | [0.000] | [0.043] | [0.695] | [0.020] |
| ROA | -0.198 | 0.988 | -0.066 | -1.527\* | 6.068 | -1.235 |
|  | [0.677] | [0.911] | [0.891] | [0.076] | [0.243] | [0.218] |
| Constant | 7.831\*\*\* | 41.388\*\*\* | 9.462\*\*\* | 56.308 | 86.835\*\*\* | 45.723 |
|  | [0.000] | [0.000] | [0.000] | [0.488] | [0.000] | [0.580] |
|  |  |  |  |  |  |  |
| Observations | 1597 | 1597 | 1597 | 1597 | 1597 | 1597 |
| R-squared | 0.491 | 0.153 | 0.501 | 0.086 | 0.157 | 0.063 |