

## Online Appendix

### The Debt-Contracting Value of Accounting Numbers and Financial Covenant Renegotiation

This appendix provides supplemental analyses that support the manuscript “The Debt-Contracting Value of Accounting Numbers and Financial Covenant Renegotiation.” I start with the full description of additional analyses in Section 6, and then tabulate results mentioned in the paper.

#### 6. Additional Analyses

##### 6.1. Alternative Debt-Contracting Value Measure

I calculate Ball et al.’s (2008) original debt-contracting value, which is measured as Somers’ D, a goodness-of-fit statistic, from the following probit regression for each 2-digit SIC industry group with at least 20 firms:

$$P(\text{Downgrade}_{q,i} = 1) = f(\alpha_0 + \alpha_1 \Delta E_{q-1,i} + \alpha_2 \Delta E_{q-2,i} + \alpha_3 \Delta E_{q-3,i} + \alpha_4 \Delta E_{q-4,i}),$$

where  $\text{Downgrade}_{q,i}$  is an indicator variable equal to one if firm  $i$ ’s credit rating is downgraded in quarter  $q$ , and  $\Delta E_{q-k,i}$  is the seasonally-adjusted change in quarterly earnings before extraordinary items scaled by total assets in the  $k^{\text{th}}$  quarter prior to quarter  $q$ . No inference is affected by using this alternative measure (untabulated).

##### 6.2. Alternative Explanations for Renegotiation

**Renegotiation Caused by Mandatory GAAP Changes:** If a contract uses rolling GAAP as a starting point to define the contractual accounting numbers, mandatory accounting changes might create incentives for renegotiation to shield the influence of the changes. Christensen and Nikolaev (2014) identify a new contracting practice that gives the contracting parties an option to exclude the effect of accounting changes (mutual-option-to-freeze GAAP). I read the definition of GAAP in detail for a random sample of 100 contracts, and I find that 37%, 30%, and 33% use rolling, frozen, and mutual-option-to-freeze GAAP, respectively. The  $t$ -tests between any two groups of  $\text{Renegotiate}_i$  are never significant, suggesting that the GAAP rules chosen for the initial contracts do not play a role during renegotiation. However, these results should be interpreted with caution because of the small sample.

**Renegotiation Caused by Mergers and Acquisitions (M&As):** I assess whether more M&As occur in the window between loan origination and renegotiation than in the window with the same length preceding the loan initiation. I create an indicator variable equal to one if a firm engages in an M&A as per the SDC Platinum M&A database. I do not find a significant difference in this indicator between these two windows. Therefore, M&As do not appear to be a cause of renegotiation of accounting-based covenants.

**Non-Renegotiation Caused by Redacted Disclosure:** Despite the strict requirement of Regulation S-K, there are exemptions. Verrecchia and Weber (2006) find that the SEC allows firms to request that the proprietary information contained within contracts be withheld, if it “covers trade secrets and commercial or financial information obtained from a person and privileged or confidential information.” Therefore, contracts identified as not being renegotiated could be so because borrowing firms file the amendment privately with the SEC. Following Verrecchia and Weber (2006), I search the exhibit lists of the sample firms’ 10-K forms using the phrase “confidential treatment” between the debt initiation and maturity dates. I create an indicator variable equal to one if there are any confidential treatments during that period. I find that contracts with renegotiations are even more likely to have redacted disclosures (21.3%) than without renegotiations (19.0%) ( $t$ -statistic = 1.71). This finding suggests that non-renegotiations cannot be explained by redacted disclosure.

**Table A1: Alternative DCV Estimated using DD Where T is set to Two or Three**

This table presents marginal effects for pooled Probit regressions at the loan level for the full sample. The dependent variable in all regressions is an indicator variable (*Renegotiate<sub>i</sub>*) that is equal to one if any financial covenant in the contract is renegotiated before maturity. *DCV* is estimated using distance-to-default (*DD*), where *T* is set to two or three. Firm, industry, and loan characteristics include the respective sets of variables in Table 5. Deal purpose fixed effects correspond to four categories (general corporate purpose, recapitalization, acquisition, and others). Year fixed effects correspond to the loan initiation years. Credit rating fixed effects correspond to six categories (A-rated or better, BBB-rated, BB-rated, B-rated, CCC-rated or worse, and unrated firms). All variables are defined in Appendix II. Continuous variables are winsorized at the 1st and 99th percentiles. Clustered *z*-statistics by firm are presented in parentheses. \*, \*\*, \*\*\* denote significant at the 0.10, 0.05, 0.01 level (two-sided test).

| <b>Test Variable</b>            | <i>Dep=Renegotiate<sub>i</sub></i> |                    |
|---------------------------------|------------------------------------|--------------------|
|                                 | <i>T=2</i>                         | <i>T=3</i>         |
|                                 | (1)                                | (2)                |
| <i>DCV</i>                      | -0.384***<br>(3.00)                | -0.307**<br>(2.14) |
| <b>Firm Characteristics</b>     | YES                                | YES                |
| <b>Industry Characteristics</b> | YES                                | YES                |
| <b>Loan Characteristics</b>     | YES                                | YES                |
| Deal Purpose FE                 | YES                                | YES                |
| Year FE                         | YES                                | YES                |
| Credit Rating FE                | YES                                | YES                |
| Observations                    | 3344                               | 3344               |
| Log Likelihood                  | -2106.926                          | -2109.511          |

**Table A2: Debt-Contracting Value of Accounting by 2-digit SIC Industry**

This table shows the distribution of the mean *DCV* (R-squared) over 1994-2005 by 2-digit SIC industry.

| Industry                               | 2-digit SIC | Mean DCV | Industry                                 | 2-digit SIC | Mean DCV |
|--|-------------|----------|--|-------------|----------|
| Agricultural Production - Crops        | 1           | 0.333    | Leather & Leather Products               | 31          | 0.258    |
| Amusement & Recreation Services        | 79          | 0.104    | Lumber & Wood Products                   | 24          | 0.182    |
| Apparel & Accessory Stores             | 56          | 0.098    | Metal, Mining                            | 10          | 0.151    |
| Apparel & Other Textile Products       | 23          | 0.103    | Misc. Manuf. Industries                  | 39          | 0.097    |
| Auto Repair, Services, & Parking       | 75          | 0.487    | Miscellaneous Retail                     | 59          | 0.046    |
| Automotive Dealers & Service Stations  | 55          | 0.198    | Motion Pictures                          | 78          | 0.192    |
| Building Materials& Gardening Supplies | 52          | 0.349    | Non classifiable Establishments          | 99          | 0.119    |
| Business Services                      | 73          | 0.014    | Nonmetallic Minerals, except Fuels       | 14          | 0.492    |
| Chemical & Allied Products             | 28          | 0.014    | Oil & Gas Extraction                     | 13          | 0.043    |
| Coal Mining                            | 12          | 0.533    | Paper & Allied Products                  | 26          | 0.092    |
| Communications                         | 48          | 0.028    | Personal Services                        | 72          | 0.333    |
| Eating & Drinking Places               | 58          | 0.061    | Petroleum & Coal Products                | 29          | 0.203    |
| Educational Services                   | 82          | 0.274    | Primary Metal Industries                 | 33          | 0.074    |
| Electric, Gas, & Sanitary Services     | 49          | 0.043    | Printing & Publishing                    | 27          | 0.078    |
| Electronic & Other Electric Equipment  | 36          | 0.015    | Railroad Transportation                  | 40          | 0.335    |
| Engineering & Management Services      | 87          | 0.045    | Rubber & Miscellaneous Plastics Products | 30          | 0.081    |
| Fabricated Metal Products              | 34          | 0.077    | Social Services                          | 83          | 0.452    |
| Food & Kindred Products                | 20          | 0.043    | Special Trade Contractors                | 17          | 0.366    |
| Food Stores                            | 54          | 0.135    | Stone, Clay, & Glass Products            | 32          | 0.188    |
| Furniture & Fixtures                   | 25          | 0.145    | Textile Mill Products                    | 22          | 0.212    |
| Furniture & Home Furnishing Stores     | 57          | 0.206    | Transportation by Air                    | 45          | 0.145    |
| General Building Contractors           | 15          | 0.173    | Transportation Equipment                 | 37          | 0.051    |
| General Merchandise Stores             | 53          | 0.140    | Transportation Services                  | 47          | 0.365    |
| Health Services                        | 80          | 0.061    | Trucking & Warehousing                   | 42          | 0.129    |
| Heavy Construction, Except Building    | 16          | 0.291    | Water Transportation                     | 44          | 0.256    |
| Hotels & Other Lodging Places          | 70          | 0.201    | Wholesale Trade- Durable Goods           | 50          | 0.037    |
| Industrial Machinery & Equipment       | 35          | 0.019    | Wholesale Trade- Nondurable Goods        | 51          | 0.089    |
| Instruments & Related Products         | 38          | 0.015    |  |             |          |

**Table A3: Correlation Matrix of Variables Used in the Loan-Level Cross-Sectional Analyses**

This table presents the correlation matrix of variables used in the loan-level cross-sectional analyses. All variables are defined in Appendix II. \* denotes significant at the 0.10 level or better (two-sided test).

| <b>Panel E: Pearson Correlation</b> | (1)     | (2)     | (3)     | (4)     | (5)     | (6)     | (7)     | (8)     | (9)     | (10)    | (11)    | (12)    | (13)    |
|-------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| (1) <i>Renegotiate</i>              | 1       |         |         |         |         |         |         |         |         |         |         |         |         |
| (2) <i>DCV</i>                      | -0.078* | 1       |         |         |         |         |         |         |         |         |         |         |         |
| (3) <i>Log assets</i>               | -0.169* | 0.058*  | 1       |         |         |         |         |         |         |         |         |         |         |
| (4) <i>Debt/EBITDA</i>              | -0.007  | 0.024   | 0.039*  | 1       |         |         |         |         |         |         |         |         |         |
| (5) <i>Leverage</i>                 | 0.057*  | 0.014   | 0.138*  | 0.016   | 1       |         |         |         |         |         |         |         |         |
| (6) <i>EBITDA/assets</i>            | -0.013  | 0.003   | -0.008  | -0.02   | -0.052* | 1       |         |         |         |         |         |         |         |
| (7) <i>Market-to-book</i>           | -0.054* | -0.107* | -0.124* | -0.021  | -0.192* | 0.355*  | 1       |         |         |         |         |         |         |
| (8) <i>EBITDA volatility</i>        | -0.01   | -0.026  | -0.234* | -0.042* | -0.051* | -0.083* | 0.172*  | 1       |         |         |         |         |         |
| (9) <i>Zscore</i>                   | -0.027  | -0.055* | -0.137* | -0.015  | -0.358* | 0.210*  | 0.709*  | 0.106*  | 1       |         |         |         |         |
| (10) <i>Tangibility</i>             | -0.035* | 0.107*  | 0.137*  | -0.033* | 0.229*  | 0.092*  | -0.142* | -0.012  | -0.124* | 1       |         |         |         |
| (11) <i>Fin constraint</i>          | 0.025   | 0.012   | 0.037*  | 0.002   | 0.214*  | -0.013  | 0.054*  | -0.021  | 0.042*  | 0.056*  | 1       |         |         |
| (12) <i>DispDD</i>                  | -0.045* | -0.076* | 0.082*  | 0.021   | 0.112*  | 0.018   | 0.001   | -0.018  | -0.015  | 0.128*  | -0.008  | 1       |         |
| (13) <i>DispCF</i>                  | 0.070*  | -0.295* | -0.218* | -0.019  | -0.184* | 0.01    | 0.189*  | 0.108*  | 0.150*  | -0.488* | -0.038* | -0.246* | 1       |
| (14) <i>Log maturity</i>            | 0.197*  | 0.060*  | -0.135* | 0.007   | 0.039*  | 0.112*  | -0.017  | -0.071* | -0.006  | -0.006  | 0.038*  | 0.073*  | -0.050* |
| (15) <i>Loan spread</i>             | 0.176*  | -0.023  | -0.406* | -0.012  | 0.252*  | -0.311* | -0.120* | 0.131*  | -0.144* | -0.023  | 0.090*  | -0.146* | 0.052*  |
| (16) <i>Num lender</i>              | -0.030* | 0.004   | 0.555*  | 0.001   | 0.184*  | 0.048*  | -0.051* | -0.142* | -0.097* | 0.067*  | 0.062*  | 0.138*  | -0.106* |
| (17) <i>Deal amount</i>             | -0.055* | 0.049*  | 0.816*  | 0.021   | 0.184*  | 0.133*  | -0.075* | -0.206* | -0.118* | 0.109*  | 0.040*  | 0.119*  | -0.173* |
| (18) <i>Revolv Loan</i>             | 0.105*  | 0.066*  | -0.204* | -0.019  | -0.157* | 0.019   | -0.007  | 0.055*  | 0.057*  | 0.006   | -0.012  | -0.049* | 0.016   |
| (19) <i>Accounting grid</i>         | 0.214*  | -0.005  | -0.343* | -0.001  | -0.090* | 0.110*  | 0.026   | 0.023   | 0.071*  | -0.067* | 0.005   | -0.063* | 0.077*  |
| (20) <i>Rating grid</i>             | -0.208* | 0.026   | 0.587*  | 0.030*  | 0.054*  | 0.059*  | -0.044* | -0.124* | -0.076* | 0.113*  | -0.029* | 0.113*  | -0.129* |
| (21) <i>Borrowing base</i>          | 0.159*  | -0.024  | -0.343* | -0.013  | 0.005   | -0.213* | -0.082* | 0.154*  | -0.042* | -0.096* | 0.018   | -0.131* | 0.125*  |
| (22) <i>IS covenants</i>            | 0.219*  | -0.034* | -0.231* | 0.027   | 0.140*  | 0.080*  | 0.007   | -0.074* | -0.01   | -0.151* | 0.064*  | -0.008  | 0.077*  |
| (23) <i>BS covenants</i>            | -0.017  | -0.003  | -0.208* | -0.031* | -0.183* | -0.029* | 0.018   | 0.073*  | 0.087*  | 0.057*  | -0.040* | -0.035* | 0.005   |
| (24) <i>General covenants</i>       | 0.185*  | -0.004  | -0.198* | 0.02    | 0.191*  | -0.027  | -0.055* | -0.014  | -0.062* | -0.065* | 0.066*  | -0.023  | 0.030*  |
| (25) <i>Collateral</i>              | 0.217*  | -0.037* | -0.432* | -0.022  | 0.166*  | -0.161* | -0.070* | 0.105*  | -0.076* | -0.046* | 0.066*  | -0.086* | 0.065*  |
| (26) <i>Relationship lending</i>    | 0.004   | 0.034*  | -0.108* | -0.022  | -0.198* | 0.071*  | 0.107*  | 0.017   | 0.116*  | -0.078* | -0.073* | 0.006   | 0.045*  |
|                                     | (14)    | (15)    | (16)    | (17)    | (18)    | (19)    | (20)    | (21)    | (22)    | (23)    | (24)    | (25)    |         |
| (14) <i>Log maturity</i>            | 1       |         |         |         |         |         |         |         |         |         |         |         |         |
| (15) <i>Loan spread</i>             | 0.023   | 1       |         |         |         |         |         |         |         |         |         |         |         |
| (16) <i>Num lender</i>              | 0.142*  | -0.208* | 1       |         |         |         |         |         |         |         |         |         |         |
| (17) <i>Deal amount</i>             | 0.112*  | -0.377* | 0.680*  | 1       |         |         |         |         |         |         |         |         |         |
| (18) <i>Revolv Loan</i>             | 0.300*  | -0.141* | -0.177* | -0.195* | 1       |         |         |         |         |         |         |         |         |
| (19) <i>Accounting grid</i>         | 0.300*  | 0.091*  | -0.129* | -0.185* | 0.215*  | 1       |         |         |         |         |         |         |         |
| (20) <i>Rating grid</i>             | -0.148* | -0.424* | 0.323*  | 0.476*  | -0.128* | -0.590* | 1       |         |         |         |         |         |         |
| (21) <i>Borrowing base</i>          | -0.023  | 0.337*  | -0.252* | -0.338* | 0.168*  | 0.108*  | -0.263* | 1       |         |         |         |         |         |
| (22) <i>IS covenants</i>            | 0.297*  | 0.285*  | 0.033*  | -0.033* | -0.075* | 0.308*  | -0.302* | -0.070* | 1       |         |         |         |         |
| (23) <i>BS covenants</i>            | -0.079* | -0.060* | -0.189* | -0.257* | 0.151*  | 0.023   | -0.066* | 0.050*  | -0.250* | 1       |         |         |         |
| (24) <i>General covenants</i>       | 0.223*  | 0.438*  | 0.029*  | 0.002   | -0.198* | 0.269*  | -0.286* | 0.072*  | 0.472*  | -0.178* | 1       |         |         |
| (25) <i>Collateral</i>              | 0.173*  | 0.596*  | -0.139* | -0.308* | 0.007   | 0.289*  | -0.451* | 0.373*  | 0.299*  | -0.029* | 0.471*  | 1       |         |
| (26) <i>Relationship lending</i>    | 0.025   | -0.183* | 0.011   | 0.024   | 0.077*  | 0.065*  | -0.024  | -0.069* | -0.01   | 0.064*  | -0.094* | -0.092* | 1       |

**Table A4: Controlling for the Ownership of Lead Arrangers and Covenant Strictness**

This table presents marginal effects for pooled Probit regressions at the loan level for the full sample. The dependent variable in all regressions is an indicator variable (*Renegotiate<sub>it</sub>*) that is equal to one if any financial covenant in the contract is renegotiated before maturity. In column (1), we control for the ownership of lead arrangers in the loan. In column (2), we control for covenant strictness, as per Demerjian and Owens (2016). Firm, industry, and loan characteristics include the respective sets of variables in Table 5. Deal purpose fixed effects correspond to four categories (general corporate purpose, recapitalization, acquisition, and others). Year fixed effects correspond to the loan initiation years. Credit rating fixed effects correspond to six categories (A-rated or better, BBB-rated, BB-rated, B-rated, CCC-rated or worse, and unrated firms). All variables are defined in Appendix II. Continuous variables are winsorized at the 1st and 99th percentiles. Clustered *z*-statistics by firm are presented in parentheses. \*, \*\*, \*\*\* denote significant at the 0.10, 0.05, 0.01 level (two-sided test).

| Test Variable                   | <i>Dep=Renegotiate<sub>it</sub></i> |                            |
|---------------------------------|-------------------------------------|----------------------------|
|                                 | <i>Control for</i>                  |                            |
|                                 | <i>Ownership of Lead Arrangers</i>  | <i>Covenant Strictness</i> |
|                                 | (1)                                 | (2)                        |
| <i>DCV</i>                      | -0.446**<br>(2.22)                  | -0.430***<br>(3.15)        |
| <b>Firm Characteristics</b>     | YES                                 | YES                        |
| <b>Industry Characteristics</b> | YES                                 | YES                        |
| <b>Loan Characteristics</b>     | YES                                 | YES                        |
| Deal Purpose FE                 | YES                                 | YES                        |
| Year FE                         | YES                                 | YES                        |
| Credit Rating FE                | YES                                 | YES                        |
| Observations                    | 1572                                | 2724                       |
| Log Likelihood                  | -975.490                            | -1685.753                  |

**Table A5: Robustness to Various Types of Renegotiation of Financial Covenants**

This table presents marginal effects for pooled Probit regressions at the loan level. In column 1 (2) [3], loans without financial covenant renegotiation are pooled with loans for which financial covenant renegotiation changes a contractual threshold (redefines an accounting term) [uses another financial covenant instead]. In column 4 (5), loans without financial covenant renegotiation are pooled with loans for which a contractual threshold change during the renegotiation tightens (relaxes) a covenant. The classification by renegotiation action or direction is non-mutually exclusive since contracting parties may adopt multiple actions and change covenants in different directions in a renegotiation. The dependent variable in all regressions is an indicator variable (*Renegotiate<sub>i</sub>*) that is equal to one if any financial covenant in the contract is renegotiated before maturity. Firm, industry, and loan characteristics include the respective sets of variables in Table 5. Deal purpose fixed effects correspond to four categories (general corporate purpose, recapitalization, acquisition, and others). Year fixed effects correspond to the loan initiation years. Credit rating fixed effects correspond to six categories (A-rated or better, BBB-rated, BB-rated, B-rated, CCC-rated or worse, and unrated firms). All variables are defined in Appendix II. Continuous variables are winsorized at the 1st and 99th percentiles. Clustered *z*-statistics by firm are presented in parentheses. \*, \*\*, \*\*\* denote significant at the 0.10, 0.05, 0.01 level (two-sided test).

| Test Variable                    | <i>Changing</i>     | <i>Redefining</i>  | <i>Replacement</i>  | <i>Changing Thresholds</i> |                     |
|----------------------------------|---------------------|--------------------|---------------------|----------------------------|---------------------|
|                                  | <i>Thresholds</i>   | <i>Accounting</i>  | <i>with another</i> | <i>Tightened</i>           | <i>Relaxed</i>      |
|                                  | (1)                 | (2)                | (3)                 | (4)                        | (5)                 |
| <i>DCV</i>                       | -0.381***<br>(2.91) | -0.261**<br>(2.05) | -0.153*<br>(1.68)   | -0.390***<br>(2.80)        | -0.383***<br>(2.94) |
| <b>Firm Characteristics</b>      | YES                 | YES                | YES                 | YES                        | YES                 |
| <b>Industry Characteristics</b>  | YES                 | YES                | YES                 | YES                        | YES                 |
| <b>Loan Characteristics</b>      | YES                 | YES                | YES                 | YES                        | YES                 |
| Deal Purpose FE                  | YES                 | YES                | YES                 | YES                        | YES                 |
| Year FE                          | YES                 | YES                | YES                 | YES                        | YES                 |
| Credit Rating FE                 | YES                 | YES                | YES                 | YES                        | YES                 |
| Observations                     | 2951                | 2320               | 1706                | 2674                       | 2758                |
| Log Likelihood or R <sup>2</sup> | -1872.162           | -1398.024          | -701.749            | -1688.205                  | -1747.942           |

**Table A6: Renegotiation of Performance Covenants and Capital Covenants**

This table presents marginal effects for pooled Probit regressions at the loan level. In column 1 (2), the dependent variable is equal to one if a performance (capital) covenant is renegotiated, and zero otherwise. Firm, industry, and loan characteristics include the respective sets of variables in Table 5. Deal purpose fixed effects correspond to four categories (general corporate purpose, recapitalization, acquisition, and others). Year fixed effects correspond to the loan initiation years. Credit rating fixed effects correspond to six categories (A-rated or better, BBB-rated, BB-rated, B-rated, CCC-rated or worse, and unrated firms). All variables are defined in Appendix II. Continuous variables are winsorized at the 1st and 99th percentiles. Clustered z-statistics by firm are presented in parentheses. \*, \*\*, \*\*\* denote significant at the 0.10, 0.05, 0.01 level (two-sided test).

| <b>Test Variable</b>             | <i>Renegotiate<br/>Performance<br/>Covenants</i> | <i>Renegotiate<br/>Capital<br/>Covenants</i> |
|----------------------------------|--|--|
|                                  | (1)  | (2)  |
| <i>DCV</i>                       | -0.405***<br>(3.35)                              | -0.122<br>(1.17)                             |
| <b>Firm Characteristics</b>      | YES  | YES  |
| <b>Industry Characteristics</b>  | YES  | YES  |
| <b>Loan Characteristics</b>      | YES  | YES  |
| Deal Purpose FE                  | YES  | YES  |
| Year FE                          | YES  | YES  |
| Credit Rating FE                 | YES  | YES  |
| Observations                     | 3344   | 3344   |
| Log Likelihood or R <sup>2</sup> | -2048.049  | -1759.136                                    |

**Table A7: Partition by Maturity, Credit Risk, and Relationship Strength**

This table presents marginal effects for pooled Probit regressions at the loan level for subsamples stratified on the maturity of three years in columns (1) and (2), for subsamples stratified on the median of borrowers' credit risk, as proxied by *Zscore* in columns (3) and (4), and for subsamples stratified on the median of industry experience, as proxied by the total dollar value of prior loans lent by the current lead lenders to firms in the same industry as the borrowing firm is in past five years in columns (5) and (6). The dependent variable in all regressions is an indicator variable (*Renegotiate<sub>it</sub>*) that is equal to one if any financial covenant in the contract is renegotiated before maturity. Firm, industry, and loan characteristics include the respective sets of variables in Table 5. Deal purpose fixed effects correspond to four categories (general corporate purpose, recapitalization, acquisition, and others). Year fixed effects correspond to the loan initiation years. Credit rating fixed effects correspond to six categories (A-rated or better, BBB-rated, BB-rated, B-rated, CCC-rated or worse, and unrated firms). All variables are defined in Appendix II. Continuous variables are winsorized at the 1st and 99th percentiles. Clustered *z*-statistics by firm are presented in parentheses. \*, \*\*, \*\*\* denote significant at the 0.10, 0.05, 0.01 level (two-sided test).

| Test Variable                   | <i>Dep=Renegotiate<sub>it</sub></i> |                   |                    |            |                            |             |
|---------------------------------|-------------------------------------|-------------------|--------------------|------------|----------------------------|-------------|
|                                 | <i>Maturity</i>                     |                   | <i>Credit Risk</i> |            | <i>Industry Experience</i> |             |
|                                 | <i>&gt; 3 yrs</i>                   | <i>&lt; 3 yrs</i> | <i>High</i>        | <i>Low</i> | <i>Low</i>                 | <i>High</i> |
|                                 | (1)                                 | (2)               | (3)                | (4)        | (5)                        | (6)         |
| <i>DCV</i>                      | -0.540***                           | -0.251            | -0.526***          | -0.268     | -0.520**                   | -0.342      |
|                                 | (3.78)                              | (1.36)            | (3.49)             | (1.52)     | (2.16)                     | (1.51)      |
| <i>Diff (p-value) in DCV</i>    |                                     | 0.078             |                    | 0.084      |                            | 0.2054      |
| <b>Firm Characteristics</b>     | YES                                 | YES               | YES                | YES        | YES                        | YES         |
| <b>Industry Characteristics</b> | YES                                 | YES               | YES                | YES        | YES                        | YES         |
| <b>Loan Characteristics</b>     | YES                                 | YES               | YES                | YES        | YES                        | YES         |
| Deal Purpose FE                 | YES                                 | YES               | YES                | YES        | YES                        | YES         |
| Year FE                         | YES                                 | YES               | YES                | YES        | YES                        | YES         |
| Credit Rating FE                | YES                                 | YES               | YES                | YES        | YES                        | YES         |
| Observations                    | 1827                                | 1517              | 1668               | 1676       | 1672                       | 1672        |
| Log Likelihood                  | -1129.753                           | -943.017          | -1038.214          | -1049.021  | -1046.772                  | -1040.129   |

**Table A8: Summary Statistics for Loan-Quarter Analyses**

This table presents summary statistics of variables used in the loan-quarter analyses. I combine the borrower, loan origination, and renegotiation data to form an unbalanced loan-quarter panel dataset consisting of all quarters from the time a loan is initiated until the ultimate outcome of the loan (it matures, is renegotiated, or the borrower stops filing with the SEC).  $Renegotiate_{i,q}$  is equal to one if any financial covenant in the contract is renegotiated in that loan-quarter, and zero otherwise.  $DCV$ , firm characteristics and industry characteristics are measured immediately preceding loan origination.  $Shock$  is the absolute value of a percentage change in Hillegeist et al.'s (2004) market-based measure of distance-to-default ( $DD$ ) from one quarter before loan origination to the quarter  $q$ . All other variables are defined in Appendix II.

| Variable                                     | N      | Mean    | Std     | P25    | Median  | P75     |
|--|--------|---------|---------|--------|---------|---------|
| <b>Panel A: Dependent and Test Variables</b> |        |         |         |        |         |         |
| <i>Renegotiate</i>                           | 27,350 | 0.065   | 0.247   | 0.000  | 0.000   | 0.000   |
| <i>DCV</i>                                   | 27,350 | 0.074   | 0.094   | 0.020  | 0.042   | 0.088   |
| <i>Shock</i>                                 | 27,350 | 0.493   | 0.937   | 0.100  | 0.280   | 0.547   |
| <b>Panel B: Firm Characteristics</b>         |        |         |         |        |         |         |
| <i>Log assets</i>                            | 27,350 | 6.711   | 1.649   | 5.572  | 6.642   | 7.766   |
| <i>Debt/EBITDA</i>                           | 27,350 | 8.067   | 73.687  | 2.744  | 7.136   | 13.326  |
| <i>Leverage</i>                              | 27,350 | 0.289   | 0.195   | 0.148  | 0.273   | 0.403   |
| <i>EBITDA/assets</i>                         | 27,350 | 0.037   | 0.027   | 0.023  | 0.035   | 0.049   |
| <i>Market-to-book</i>                        | 27,350 | 1.837   | 1.465   | 1.140  | 1.466   | 2.027   |
| <i>EBITDA volatility</i>                     | 27,350 | 0.016   | 0.023   | 0.006  | 0.010   | 0.019   |
| <i>Zscore</i>                                | 27,350 | 3.037   | 5.596   | 1.032  | 1.838   | 3.328   |
| <i>Tangibility</i>                           | 27,350 | 0.348   | 0.241   | 0.149  | 0.288   | 0.523   |
| <i>Fin constraint</i>                        | 27,350 | 0.684   | 1.853   | 0.262  | 0.720   | 1.227   |
| <b>Panel C: Industry Characteristics</b>     |        |         |         |        |         |         |
| <i>DispDD</i>                                | 27,350 | 2.643   | 0.640   | 2.223  | 2.614   | 3.016   |
| <i>DispCF</i>                                | 27,350 | 0.047   | 0.011   | 0.039  | 0.046   | 0.055   |
| <b>Panel D: Loan Characteristics</b>         |        |         |         |        |         |         |
| <i>Log maturity</i>                          | 27,350 | 3.747   | 0.512   | 3.584  | 3.871   | 4.094   |
| <i>Loan spread</i>                           | 27,350 | 149.273 | 106.816 | 65.000 | 125.000 | 212.500 |
| <i>Num lender</i>                            | 27,350 | 8.840   | 8.692   | 3.000  | 7.000   | 12.000  |
| <i>Deal amount</i>                           | 27,350 | 19.104  | 1.377   | 18.258 | 19.114  | 20.030  |
| <i>Revolv Loan</i>                           | 27,350 | 0.745   | 0.351   | 0.500  | 1.000   | 1.000   |
| <i>Accounting grid</i>                       | 27,350 | 0.484   | 0.488   | 0.000  | 0.319   | 1.000   |
| <i>Rating grid</i>                           | 27,350 | 0.295   | 0.450   | 0.000  | 0.000   | 1.000   |
| <i>Borrowing base</i>                        | 27,350 | 0.136   | 0.343   | 0.000  | 0.000   | 0.000   |
| <i>IS covenants</i>                          | 27,350 | 1.619   | 1.008   | 1.000  | 2.000   | 2.000   |
| <i>BS covenants</i>                          | 27,350 | 0.960   | 0.820   | 0.000  | 1.000   | 1.000   |
| <i>General covenants</i>                     | 27,350 | 1.590   | 1.582   | 1.000  | 1.000   | 3.000   |
| <i>Collateral</i>                            | 27,350 | 0.476   | 0.496   | 0.000  | 0.000   | 1.000   |
| <i>Relationship lending</i>                  | 27,350 | 0.757   | 0.267   | 0.564  | 0.844   | 1.000   |