ONLINE APPENDIX

to accompany

“The disciplinary effect of financial statements: Evidence from mergers and acquisitions of privately-held targets”

by

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Online Appendix A: Additional Information about Regulation S-X

The SEC mandates that registrants separately file pre-acquisition historical financial statements of target firms when the acquisition of a significant target has occurred or is likely (Regulation S-X or 170 C.F.R. §210). An acquirer determines whether disclosure is required using the asset, investment, and income tests defined in Rule 1-02 (w) of Regulation S-X. When disclosure is triggered, the acquirer follows the requirements in Rule 3-05 (b). Section 2.2 of the manuscript describes these tests and the disclosure requirements.

As discussed in the manuscript, Rule 3-05 (b) of Regulation S-X is a mandatory disclosure setting. Acquirers can face negative consequences for non-compliance such as SEC enforcement actions or restricted access to capital markets. As one example, Accounting and Auditing Enforcement Releases No. 598 (1994) states that “This matter involves the omission of audited financial statement, pro forma financial statements, and other accurate disclosures related to an acquired subsidiary…” and “…the acquisition was structured so as to create the appearance that the cost of the acquisition was less than 10% of the value of the assets of Meris…” This example also suggests that acquirers may have incentives to avoid disclosing acquired entity’s audited financial statements.

Although the disclosure is mandatory, Figure 2 in the manuscript shows that not all public acquirers make disclosures of private targets’ audited financial statements when the investment test proxy (\textit{THRESHOLD}, calculated as the deal value from SDC divided by the acquirer’s total assets at the fiscal year-end prior to merger announcement) is higher than 20 percent. Several reasons explain this phenomenon.

First, \textit{THRESHOLD} is only a proxy for the investment test calculation. In practice, the numerator used in the investment test is GAAP purchase price adjusted to exclude carrying value
of assets transferred by the acquirer to the acquired business that will remain with the combined entity after the business combination.\textsuperscript{1} This internal adjustment cannot be observed by outsiders. Therefore, \textit{THRESHOLD} captures the investment test with error. Second, when the transaction is qualified as a reorganization, the investment test compares the net book value of the target to the acquirers’ consolidated assets. These transactions may be misclassified using the investment test proxy. Third, even when the disclosure requirements are triggered, the acquirer can seek relief from the SEC disclosure requirements if the firm justifies the transaction is actually immaterial (i.e., false positives). This typically is a result of the application of the income test in situations where the acquirer reports earnings close to zero, or when either entity has large, nonrecurring expenses or income (KPMG [2015], PwC [2015]). If the disclosure relief is granted, the acquirer is exempted from disclosing some or all of the target’s audited financial statements.

I also observe disclosures below the 20 percent threshold in Figure 2. For these observations, measurement errors noted above are still present. It is also possible that one of the other two significance tests (i.e., the asset test or the income test) is triggered. Nevertheless, the results in Figure 2 support that the disclosure policy under Regulation S-X affects acquirers’ disclosures, suggesting that this mandatory disclosure is a suitable setting to examine the effect of disclosure on acquiring firms’ M&A decisions.

\textsuperscript{1} Guidance for implementing the significance tests is provided in the Financial Reporting Manual by the SEC’s Division of Corporation Finance: https://www.sec.gov/divisions/corpfin/cffinancialreportingmanual.pdf.
Online Appendix B: Data Limitations for Applying Regression Discontinuity Design

In research settings involving thresholds, an alternative empirical approach is regression discontinuity design (RDD). In a RDD, researchers exploit discontinuities in the treatment to draw causal inferences by assuming that observations just on different sides of the discontinuity are essentially the same in outcome-related factors (other than the treatment). Therefore, the differences in outcomes can be attributed to the different treatment status (Wooldridge [2000]). To employ a RDD approach, researchers must observe the covariate that determines the treatment status in order to identify the discontinuity and to estimate the treatment effect using either parametric (controlling for flexible polynomial forms of the assignment variable) or nonparametric (bandwidth around discontinuity) approach (e.g., Bird and Karoly [2017]; Breuer, Hombach, and Muller [2018]; Tan [2013]). Researchers cannot apply these two approaches without knowing the assignment variable for all the observations.

Several recent accounting studies employ RDD approach. For example, Bird and Karolyi [2017] use Russell 1000/2000 index reconstitutions to study institutional ownership and tax avoidance. Because the Russell indices are based on rankings of market capitalization, the authors can use regression discontinuity to compare the tax avoidance behavior of firms at the top of the Russell 2000 index with those at the bottom of the Russell 1000. Breuer et al. [2018] study financial reporting regulation and firms’ banking activities using a sample of German firms. In Germany, firms meet size thresholds based on total assets, sales, and employees must prepare audited financial statements. Because these size-based thresholds are observed in the sample of German firms, the authors are able to use a regression discontinuity approach that controls for firm-size related differences between treatment and non-treatment firms. Tan [2013] examine the effect of credit control rights on financial reporting conservatism. Using debt covenant violations
and regression discontinuity, he finds that firms financial reporting becomes more conservative after covenant violations. Similarly, covenants based on accounting numbers can be observed and calculated, which allows the author to apply a regression discontinuity approach that compares firms in the covenant violation sample with other firms.

One limitation of this paper’s disclosure setting with respect to RDD is that the three significance tests (i.e., the thresholds or assignment variables) that determine disclosures cannot be observed and calculated. Figure 2 of the manuscript shows a discontinuity in disclosures around 20 percent of the investment test ratio (\textit{THRESHOLD}, calculated as the deal value from SDC divided by the acquirer’s total assets at the fiscal-year end prior to merger announcement), which seems to suggest a fuzzy regression discontinuity is applicable. Fuzzy regression discontinuity exploits discontinuities in the probability or expected value of treatment conditional on a covariate. The result is a research design where the discontinuity becomes an instrumental variable for treatment status (Angrist and Pischke [2009]).

However, \textit{THRESHOLD} cannot be a valid instrument for disclosures for all of the observations. First, it is only a proxy for the investment test, because acquirers may make adjustments to total assets when calculating the investment test. Second, transactions that do not meet the investment test may still provide disclosures when they meet one of the other two tests (i.e., the asset test and the income test). According to Panel C of Table 1 in the manuscript, 270 transactions provide disclosures (35 percent of total disclosures) when \textit{THRESHOLD} is less than 20 percent. These observations provide disclosure presumably because they meet either the asset test or the income test. Therefore, \textit{THRESHOLD}, a proxy for the investment test, cannot be a good disclosure instrument for these observations. Due to these data limitations, regression discontinuity design is not feasible in the disclosure setting examined in this study.
Online Appendix C: Monitoring from Blockholders

Prior studies suggest that large blockholders from *private* targets created by acquisitions financed with stock can explain the positive abnormal returns around announcements of private firm acquisitions (Chang [1998], Fuller et al. [2002]). These blockholders have incentives to monitor the management of the acquiring firm, resulting in better firm performance. Furthermore, the creation of large blockholders is more likely when the size of the deal is large. As the disclosure of targets’ financial statements is based on relative size thresholds, the monitoring effect from the creation of large blockholders is a plausible competing explanation.

To investigate this competing explanation, I run the following regression model:

$$
Y_{it} = \beta DISC_{it} + \gamma STOCK\_DEAL_{it} \times TRG\_SIZE_{it} + \delta STOCK\_DEAL_{it} \\
+ \phi CONTROLS + YEAR + \epsilon_{it}
$$

(A1)

where $STOCK\_DEAL$ is a dummy variable equal to one when an acquisition is financed by stock or by a mix of stock and cash. Because larger deals financed by equity are more likely to create large blockholders from the private target, the interaction term $STOCK\_DEAL \times TRG\_SIZE$ captures the monitoring effect of large blockholders. I include all other control variables as in the main analyses, except for $STOCK$ and $CASH$. The estimation results of Equation (A1) are reported in Table OA1. The coefficients on $DISC$ in Columns 2-4 remain positive and statistically significant, while the coefficients on $STOCK\_DEAL \times TRG\_SIZE$ are not statistically different from zero in all four columns. The magnitudes of the coefficients on $DISC$ are also comparable to those reported in Table 3. Therefore, the inferences are unchanged after controlling for the monitoring from large blockholders created by stock acquisitions.

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2 Because the ownership of the private firm is concentrated, the owners of the private firm can become large blockholders of the acquiring firm when stock is offered in the transaction.
REFERENCES


KPMG. “Re: Request for comment on the effectiveness of financial disclosures about entities other than the registrant.” (2015) Available at: https://www.sec.gov/comments/s7-20-15/s72015-36.pdf.


Table OA1
The Monitoring Effect from Large Blockholders

<table>
<thead>
<tr>
<th></th>
<th>CAR3</th>
<th>ΔROA</th>
<th>ΔROA_IND</th>
<th>BHAR</th>
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<tr>
<td>DISC</td>
<td>0.004</td>
<td>0.044***</td>
<td>0.034***</td>
<td>0.156*</td>
</tr>
<tr>
<td></td>
<td>[0.231]</td>
<td>[0.003]</td>
<td>[0.008]</td>
<td>[0.076]</td>
</tr>
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<td>DEALSIZE*STOCK_DEAL</td>
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<td>0.000</td>
<td>0.002</td>
<td>-0.071</td>
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<tr>
<td></td>
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<td>[0.966]</td>
<td>[0.431]</td>
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<tr>
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<td>0.080</td>
</tr>
<tr>
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<td>[0.147]</td>
<td>[0.075]</td>
<td>[0.766]</td>
</tr>
<tr>
<td>DEALSIZE</td>
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<td>-0.014**</td>
<td>-0.010</td>
<td>0.089*</td>
</tr>
<tr>
<td></td>
<td>[0.025]</td>
<td>[0.031]</td>
<td>[0.166]</td>
<td>[0.094]</td>
</tr>
</tbody>
</table>

Control Variables Yes  Yes  Yes  Yes  
Year Dummies Yes  Yes  Yes  Yes  
Adjusted R-Square | 0.050 | 0.105 | 0.108 | 0.032  
Number of Observations 1,577 1,419 1,419 954  

Note: This table presents the results of testing the effect of DISC on acquisition performance (profitability) after controlling for the monitoring of large blockholders created by stock acquisitions. The corresponding p-values are reported in the brackets below each coefficient. ***, **, * indicate significance at the 1%, 5%, and 10% level, respectively. See Appendix C for variable definitions.