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# **Stay close to me: what do ESG scores tell about the deal timing in M&A transactions?**

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## **Abstract**

We examine how sustainability divergences between acquirer and target firms affect the deal timing in M&A transactions. Using a unique sample of 415 M&A deals from 2002 to 2020, we first show that higher discrepancies between acquirers and targets in their pre-deal sustainability performance lead to an increase in the deal timing. Second, we explore which constituent pillar of the ESG ratings drives our main findings, and we find that differences in how both firms deal with governance and social issues increase the deal timing. Our results are robust to alternative specifications and the inclusion of country macro and socioeconomic features.

JEL codes: G34, M21, M14, D22, D23

## 1. Introduction

In recent years, mergers and acquisitions (M&As) hit a new record in 2021, significantly beating previous records.<sup>1</sup> This phenomenon is driven by intense demand for technology and digital and data-driven assets (PWC, 2022) to ensure external firm growth and development (Bauer & Matzler, 2014). At the same time, sustainability issues have attracted the interest of policymakers, supervisory agencies, investors (both retail and institutional), and firms (PwC, 2021), affecting for these latter their investment decisions. In this context, prior studies on M&A deals mainly addressed the determinants of M&A transactions based on firm-specific and macroeconomic factors, the related implications for the operating performance of the firms involved, shareholders' wealth effects, and payment methods to close the deal (Agrawal et al., 2013; Brooks et al., 2018; Chuang, 2017; DePamphilis, 2019; Duchin & Schmidt, 2013; Faccio & Masulis, 2005; Garfinkel & Hankins, 2011; Huyghebaert & Luypaert, 2010; Moschieri & Campa, 2014; Ambrocio et al., 2022).

Although academic papers have addressed the key drivers of M&A transactions, little is known about how pre-deal firm conditions affect the deal timing or the speed of the deal closure (Bauer & Matzler, 2014). One of the extant exceptions is Luypaert & De Maeseneire (2015). The authors explore the drivers of deal closure and demonstrate that firm complexities affect deal duration with no emphasis on the role of involved firms' orientation to sustainability. Based on this argument, this paper aims to uncover Environmental, Social, and Governance (hereafter, ESG) performance and potential discrepancies in sustainability issues between acquirer and target firms affecting the deal timing. In exploring this nexus, we bridge previous literature on cultural discrepancies in M&A deals (Ahern et al., 2015) with literature on ESG investing. On the one hand, cultural discrepancies affect M&A deals and synergy gains (Ahern et al., 2015). This is also coherent with Bauer & Matzler (2014), according to which M&A success rates are a function of strategic complementarity, cultural fit, and the potential degree of integration. On the other hand, business sustainability represents an essential trait of the corporate culture affecting firm performance, being one of the sources of firm resilience to unexpected shocks (Albuquerque et al., 2020). Taking these arguments together, we postulate that if the acquirer and target diverge in terms of sustainability performance, this facet increases (reduces) the deal timing (or speed closure), defined as the number of calendar days required to close the M&A transaction.

To investigate this hypothesis, we build a unique dataset bridging several data sources related to 415 M&A deals from the European Union and the UK. Our estimates suggest that a higher divergence between the ESG ratings of the acquirer and target firms increases the deal timing. Second, considering the differences in each constituent pillar of the ESG rating between target and acquirer firms, we also explore the mechanism behind our main findings. We find evidence that discrepancies related to the S and G pillars drive our results. These findings align with the previous literature showing that divergences

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<sup>1</sup> Globally, the announced deals reached 62,000 in 2021, with a remarkable 24% increase in comparison with the year 2020.

in the corporate culture and workforce issues between the acquirer and target firms represent friction affecting the success rate of M&A transactions.

The novelty of this paper is to be a pioneering study creating an original linkage between discrepancies in business ESG orientation and the deal timing of M&A transactions, bridging the gap between corporate culture and corporate finance literature by introducing business sustainability performance as a potential determinant of the M&A deal timing. This is also important for policymakers because potential delays in the M&A deals might entails more economic and financial resources are tied up in both companies, increased costs, and adverse resource exploitation at detriment of the maximization of the intended benefits related to the deal.

The rest of the paper is organized as follows: section two deals with data and methods, in section three, we report the results and discussions, and section four provides conclusions and implications.

## 2. Data and Methods

We first consider all the non-financial firms' M&A transactions executed in the EU-27 countries and the UK from 2002 to 2020 using *Zephyr*. Second, we stipulate for both acquirer and target firms the existence of an available ESG rating. We collect ESG ratings from *Eikon Thomson Reuters*. Then, we match the M&A information and ESG ratings with a complete dataset on firm-specific characteristics through the firm ISIN code from *Osiris* (Bureau Van Dijk). Finally, we borrow information on acquirer and target firms' home country factors from the World Bank database. Our final sample includes 415 M&A transactions. In Table 1, we show the deal coverage of our sample.

[Insert Table 1]

To estimate the deal timing, we run a survival analysis to estimate the implications of disparities in firms' orientation toward sustainability issues (ESG ratings). For this end, we rely on the Cox Hazard model (Cox, 1972) since it requires no assumptions about the deal timing distribution. Particularly, we employ the following regression setup:

$$Deal\ timing_{i,t} = \alpha + \sum_{n=1}^N \beta_n ESG_{n,i,t} + \sum_{d=1}^D \delta_d DEAL_{d,t} + \sum_{f=1}^F \gamma_f FIN_{i,t} + \sum_{c=1}^C \gamma_c CRI_{c,i,t} + \varepsilon_{it}$$

where the deal timing is defined as the number of calendar days between the announcement date and the date of the effective closure of the M&A deal. We also include deal-specific, *ex-ante* acquirer and target firm-specific variables (Caiazza & Pozzolo, 2016; Rossi & Volpin, 2004), and country-specific variables. In alternative specifications, we allow for acquirer and target country fixed effects and year fixed effects.

As mentioned, we use the firm ESG rating as a proxy for the firm business sustainability. Specifically, we first consider acquirer and target ESG scores in logarithm as a proxy for their sustainability (*Log Acquirer ESG Rating* and *Log Target ESG Rating*). Afterward, we use the difference between the log acquirer ESG rating and log target ESG rating (*Log Difference in ESG Ratings*) to

capture acquirer and target discrepancies concerning their orientation to sustainability issues. We expect that the larger the discrepancy, the more time is needed to close the M&A transactions. Along the same lines of the literature on corporate culture (Chow et al., 2021), we expect that differences related to the sustainability issues between the acquirer and target firms are frictions for the M&A deals and extend the closure timing. To further investigate such a discrepancy, we allow for potential disparities in relation to the three pillars of the ESG Ratings - *Log Difference in E Pillar*, *Log Difference in S Pillar*, and *Log Difference in G Pillar*. We build these three variables similarly to *Log Difference in ESG Ratings*.

Second, we include a set of deal-specific characteristics, such as the log of the M&A deal value (*Deal Value (ln)*) and *Same Sector*, which is a dummy variable that takes the value of one if the acquirer and target firms belong to the same sector. Additionally, we include a dummy variable that takes the value of 1 if the M&A transaction is cross-border and zero otherwise (*Cross-border*).

Third, the vector of  $FIN_{f,i,t}$  includes variables related to the acquirer and target firm size (log of total assets), profitability (*ROA*),<sup>2</sup> solvency ratio, and firm liquidity. For this latter indicator, we rely on the firm's current ratio, obtained as total current assets to total current liabilities (*Acquirer Current Ratio*, *Target Current Ratio*).

Fourth, one may argue that institutional factors at the country level of both firms affect the timing of the deal. For this reason, we account for the overall country risk profile of both acquirers and targets, measured by the Country Risk Index (CRI).<sup>3</sup> This index is a composite indicator including: i) country accountability, ii) political stability and absence of violence, iii) government Effectiveness and bureaucratic quality), iv) country regulatory quality, v) rule of law, and vi) country corruption.  $\varepsilon$  is the error term.

Tables 2 and 3 present the descriptive statistics and correlations of the variables of our regression setup.

[Insert Table 2]

[Insert Table 3]

### 3. Main results and discussion

Table 4 shows our main findings. Before discussing our results, we run tests to check the internal validity of our results by employing the Schoenfeld's residuals test for the proportional hazard assumption in Cox regressions. Our evidence suggests that the assumption is never violated across all specifications.

We first correlate the deal timing with acquirer-specific characteristics to understand whether the acquirer's orientation to sustainability issues affects the M&A deal timing. Second, we relate the deal

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<sup>2</sup> ROA is estimated as the firm's annual net profit (EBIT) relative to its total assets.

<sup>3</sup> Source: International Country Risk Guide, provided by Political Risk Services [www.prsgroup.com](http://www.prsgroup.com). See also Sequera (2009) adopting the same index for overall country risk.

timing with the target firm's characteristics and sustainability orientation. Third, we jointly consider acquirer-target firms variables to understand which extant conditions prevail between the two agents involved. Fourth, we estimate an econometric model, including the *Log Difference in ESG Ratings*, to capture the cultural disparities in sustainability orientation between acquirer and target firms. Finally, we explore which pillar of the ESG rating drives our estimates (the *Log Difference in E Pillar*, *Log Difference in S Pillar*, and *Log Difference in G Pillar*) and the speed of the deal closure.

[Insert Table 4]

First, the *Log Acquirer ESG Rating* coefficient is positive and statistically significant at the 5% level, suggesting that more sustainable firms exert stricter scrutiny before acquiring other firms. This might be coherent with the idea that more sustainable firms are more likely to perform due diligence checks for individual deals, slackening the deal closure speed.

Second, the *Log Target ESG Rating* enters the regressions with a significant coefficient (Column 2) at 10%, indicating that an increase in the target ESG rating reduces the deal time. This might be evidence that more sustainable firms are considered a valuable opportunity for their acquirers. In addition, when we compare the ESG profiles of acquirers and targets in the same model (Column 3), our estimates suggest that acquirers' sustainability prevails and increases the deal timing. This is further evidence supporting the due diligence exerted by more sustainable acquirers.

Fourth, in Columns 4 and 5, we focus on the divergences in their overall ESG profiles between acquirers and targets. Our results suggest that their divergence in their business sustainability is essential for the deal closure. The coefficient on *Log Difference in ESG Ratings* is positive and statistically significant at 5% level, indicating that if acquirers and targets diverge in sustainability profiles and performance, the speed of the deal closure reduces. This result confirms the *merging cultures hypothesis*. Cultural differences related to sustainability issues in M&A transactions matter for the speed of the deal closure.

Finally, we investigate further the source of the discrepancies between acquirers and firms in Columns 6 and 7 by considering differences in each constituent pillar of the ESG ratings between target and acquirer firms (*Log Difference in E Pillar*, *Log Difference in S Pillar*, *Log Difference in G Pillar*). First, our findings suggest that differences in the firm's environmental performance do not affect the speed of the transaction. Second, differences related to social and corporate governance issues are more likely to increase the deal timing. The coefficient on *Log Difference in S Pillar* enters the regressions with a positive and statistically significant sign at 5%, suggesting that discrepancies in how firms deal with social issues, such as workforce issues and human rights, might raise potential uncertainty affecting the deal timing (Bauer & Matzler 2014), while the coefficient on *Log Difference in G Pillar* is statistically significant at 10%. Since Guiso et al. (2015) show that corporate governance arrangements reflect the firm's corporate culture, our findings might be interpreted as evidence that divergences in the corporate culture might impede the integration of both entities, creating frictions, cultural

incompatibilities, and misfits (Bauer & Matzler, 2014; Cartwright & Schoenberg, 2006).<sup>4</sup> Interestingly, in the same model, we also include differences in the acquirers and targets country risk profiles, which turn out to be statistically significant at 1%. Although our results remain stable, this highlights another important result according to which differences in the macro-institutional frameworks are an important determinant of deal timing.<sup>5</sup>

Moving onto other controls, coefficients and signs align with prior studies on the determinants of M&A transactions, except for the deal value. The coefficient on *Acquirer Size* is negative and statistically significant, providing that larger acquirers are more likely to close the deal in a shorter period, while deals involving larger targets require more time for the deal closure. Coherent with Luypaert & De Maeseneire (2015), we find that deals including more profitable target firms require less time to close the deal. This might be evidence that more profitable firms are less likely to create inter-organizational complexities to manage for purchasing firms.

## 5. Conclusions

In this study, we create an original linkage – using a unique dataset - between discrepancies in business ESG orientation and the deal timing of M&A transactions, bridging the gap between corporate culture and corporate finance literature by introducing business sustainability performance as a potential determinant of the M&A deal timing. In this respect, we provide some evidence that several factors affect M&A deal timing, such as socioeconomic indicators (country risk), macroeconomic factors (GDP growth), deal-specific factors (i.e., deal value, cross border deal), and both acquirer and target firm-specific characteristics (size, profitability, liquidity, and solvency of both firms). However, as well as such factors, our results indicate that divergent ESG performance between target and acquirer firms matters for the M&A deal timing. Such variations in ESG performance are associated with an increased (decreased) deal timing (speed closure), measured as the number of calendar days between the announcement date and the deal completion date. According to our estimates, the rise in the deal timing might be due to divergences in firm corporate culture, driven by divergent corporate governance arrangements between the acquirers and targets, and in how both entities involved in the deal cope with social issues related to the workforce and human rights by prolonging the deal timing. These results are coherent with the view that cultural misfits and uncertainty between target and acquirer firms affect the success rates of M&A deals (Bauer & Matzler 2014).

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<sup>4</sup> Additionally, the same result holds when we employ alternative measures of profitability (EBITDA/total assets) and firm size (log of market capitalization of acquirers and targets). For the sake of brevity, the results are in the appendix

<sup>5</sup> As further robustness, in Table 4, we provide alternative specifications by allowing for macroeconomic conditions, and acquiror and target country fixed effects and year fixed effects. Our findings remain virtually unaltered. In Appendix A1, we also allow for alternative measures of firm size and performance.



Since we provide that differences in ESG orientation increase the deal timing, our findings offer economic and policy implications: delaying the M&A deal implies tying up the economic and financial resources of both firms, thus speeding up the deal by aligning the sustainability profiles of the target and acquirer firms would save costs, maximize resources utilization, hence maximize the intended benefits of the deal. On the other hand, aligning corporate profiles and reducing the deal timing improves the informational efficiency in financial markets, which enhances the fair valuation of the stocks of the companies involved in the M&A transaction.

Although our study posits that cultural discrepancies between acquirers and targets may create frictions and inefficiencies – such as delays and deal cancellation - in the M&A process (Chow et al., 2021), affecting the resulting firm's performance through suboptimal conditions, there is also some evidence in the literature that quicker integrations might affect firm's performance adversely. In addition, our study sheds some light on the organizational implications of M&A deals without considering how shareholders perceive such deals and the business sustainability profiles of both firms involved. Hence, on the one hand, future research should address the extant trade-off between faster and slower integration and related implications for firm performance. On the other hand, it should address how the investors' consideration of firm business sustainability affects her/his wealth when an M&A announcement occurs.

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**Table 1: Sample Distribution by country and year**

Panel A: Deal distribution by the country of Acquirer and Target Firms					
Acquirer Nationality	Frequencies	Percentage	Target Nationality	Frequencies	Percentage
AT	9	2.17	AT	9	2.17
BE	4	0.96	BE	4	0.96
DE	50	12.05	DE	50	12.05
DK	9	2.17	DK	9	2.17
ES	33	7.95	ES	33	7.95
FI	12	2.89	FI	12	2.89
FR	109	26.27	FR	110	26.51
GB	75	18.07	GB	75	18.07
GR	20	4.82	GR	20	4.82
HU	2	0.48	HU	2	0.48
IE	1	0.24	IE	1	0.24
IT	34	8.19	IT	34	8.19
NL	7	1.69	NL	7	1.69
PL	27	6.51	PL	27	6.51
PT	3	0.72	PT	3	0.72
RO	1	0.24	RO	1	0.24
SE	19	4.58	SE	18	4.34
Total	415	100	Total	415	100

  

Panel B: Deal distribution by Year		
Deal Year	Frequencies	Percent
2002	29	6.99
2003	17	4.1
2004	29	6.99
2005	36	8.67
2006	39	9.4
2007	31	7.47
2008	23	5.54
2009	18	4.34
2010	22	5.3
2011	18	4.34
2012	19	4.58
2013	14	3.37
2014	17	4.1
2015	24	5.78
2016	15	3.61
2017	24	5.78
2018	20	4.82
2019	13	3.13
2020	7	1.69
Total	415	100

**Table 2: Descriptive statistics**

<i>Variable(s)</i>	<i>Obs</i>	<i>Mean</i>	<i>Std. dev.</i>	<i>Min</i>	<i>Max</i>
<b>Dependent variable</b>					
Deal timing	415	218.7229	228.5507	2.0000	1457.0000
<b>ESG variables</b>					
<i>Log Acquirer ESG Rating</i>	415	3.7493	0.5123	2.1294	4.4973
<i>Log Target ESG Rating</i>	415	3.4281	0.4000	2.4249	4.4048
<i>Log Difference in ESG Ratings</i>	415	0.3212	0.5983	-2.0313	1.7516
<i>Log Difference in E Pillar</i>	415	0.1860	0.6472	-2.6484	1.4920
<i>Log Difference in S Pillar</i>	415	0.2863	0.7767	-2.2627	2.3250
<i>Log Difference in G Pillar</i>	415	0.3929	0.6785	-2.2372	2.2266
<b>Deal variables</b>					
<i>Deal value (ln)</i>	415	11.8585	2.4943	2.7726	17.8283
<i>Same Sector</i>	415	0.5422	0.4988	0.0000	1.0000
<i>Cross border M&amp;A</i>	415	0.0048	0.0693	0.0000	1.0000
<b>Acquirer characteristics</b>					
<i>Acquirer Size</i>	415	16.0512	1.6345	13.2108	20.9919
<i>Acquirer ROA</i>	415	0.0460	0.0612	-0.2119	0.3460
<i>Acquirer Solvency Ratio</i>	415	0.3195	0.1868	-0.0934	0.9957
<i>Acquirer Current Ratio</i>	415	0.0442	0.1087	0.0003	0.9605
<b>Target characteristics</b>					
<i>Target Size</i>	415	13.8297	1.8677	7.3847	20.4198
<i>Target ROA</i>	415	0.0311	0.1036	-0.6633	0.7949
<i>Target Solvency Ratio</i>	415	0.4229	0.2311	-0.5984	0.9889
<i>Target Current Ratio</i>	415	0.0343	0.0775	0.0008	0.8987
<b>Institutional &amp; macro factors</b>					
<i>Acquirer CRI</i>	415	0.8232	0.0757	0.6171	0.9867
<i>Target CRI</i>	415	0.8228	0.0757	0.6171	0.9867
<i>Difference in CRI</i>	415	0.0005	0.0085	0.0000	0.1595
<i>Acquirer Country GDP growth</i>	415	0.0148	0.0241	-0.0927	0.0706
<i>Target Country GDP growth</i>	415	0.0147	0.0240	-0.0927	0.0706

**Table 3: Correlation matrix**

	1	2	3	4	5	6	7	8	9	10
<i>Deal timing</i>	1.0000									
<i>Log Acquirer ESG Rating</i>	-0.0142	1.0000								
<i>Log Target ESG Rating</i>	0.1256	0.1573	1.0000							
<i>Log Difference in ESG Ratings</i>	-0.0961	0.7511	-0.5338	1.0000						
<i>Log Difference in E Pillar</i>	-0.0107	0.3475	0.1077	0.2256	1.0000					
<i>Log Difference in S Pillar</i>	-0.1443	0.3647	-0.3599	0.5529	0.0911	1.0000				
<i>Log Difference in G Pillar</i>	-0.1167	0.3815	-0.1827	0.4488	0.1692	0.2238	1.0000			
<i>Deal value (ln)</i>	0.2294	0.0577	0.2012	-0.0851	0.0104	-0.0667	-0.0673	1.0000		
<i>Same Sector</i>	0.0049	0.0590	0.0361	0.0264	0.0190	0.0671	0.0658	0.2007	1.0000	
<i>Cross border M&amp;A</i>	0.0737	0.0185	0.0283	-0.0031	0.0233	0.0265	0.0051	-0.0342	-0.0059	1.0000
<i>Acquirer Size</i>	0.1792	0.3747	0.5215	-0.0278	0.1979	-0.4907	-0.0458	0.2052	-0.0252	0.0138
<i>Acquirer ROA</i>	-0.0370	-0.1032	-0.0934	-0.0260	-0.0421	0.0601	0.0663	0.0029	-0.0327	0.0098
<i>Acquirer Solvency Ratio</i>	-0.2070	-0.0944	-0.1603	0.0263	-0.0757	0.2097	0.0901	0.0127	0.0799	0.0522
<i>Acquirer Current Ratio</i>	0.0195	0.0310	0.1459	-0.0710	0.1493	-0.1110	-0.0108	0.0267	-0.0135	0.0889
<i>Target Size</i>	0.1264	0.1129	0.3587	-0.1431	-0.0384	-0.2897	-0.1928	0.4062	0.1551	0.0179
<i>Target ROA</i>	0.0640	0.0660	0.0296	0.0367	-0.0024	-0.0101	0.0941	0.1193	0.0394	0.0254
<i>Target Solvency Ratio</i>	-0.0262	0.0179	-0.0432	0.0442	0.0316	0.0013	0.1525	0.0518	-0.0651	-0.0515
<i>Target Current Ratio</i>	-0.0604	0.0596	0.0995	-0.0154	0.0322	-0.0883	-0.0105	-0.0377	-0.0019	-0.0198
<i>Acquirer CRI</i>	0.0291	-0.2100	-0.1159	-0.1023	-0.1228	0.1026	-0.0093	0.0884	0.0406	0.0634
<i>Target CRI</i>	0.0267	-0.2109	-0.1157	-0.1033	-0.1244	0.0993	-0.0113	0.0914	0.0390	-0.0221
<i>Difference in CRI</i>	0.0196	0.0078	-0.0077	0.0118	0.0160	0.0380	0.0236	-0.0323	0.0208	0.9262

**Table 3: Correlation matrix (continued)**

	11	12	13	14	15	16	17	18	19	20	21
<i>Acquirer Size</i>	1.0000										
<i>Acquirer ROA</i>	-0.2186	1.0000									
<i>Acquirer Solvency Ratio</i>	-0.3580	0.3317	1.0000								
<i>Acquirer Current Ratio</i>	0.3305	-0.1601	-0.2398	1.0000							
<i>Target Size</i>	0.4191	-0.0893	-0.1261	0.1618	1.0000						
<i>Target ROA</i>	0.0220	0.1384	0.0020	-0.0521	0.0943	1.0000					
<i>Target Solvency Ratio</i>	0.0161	0.0392	0.1771	-0.1084	-0.2116	0.3512	1.0000				
<i>Target Current Ratio</i>	0.1396	-0.1117	-0.0321	0.1066	0.0682	0.2164	0.1349	1.0000			
<i>Acquirer CRI</i>	-0.2458	0.2025	0.1538	-0.0547	-0.0666	0.0600	0.0842	-0.0550	1.0000		
<i>Target CRI</i>	-0.2433	0.2001	0.1447	-0.0589	-0.0671	0.0584	0.0880	-0.0532	0.9959	1.0000	
<i>Difference in CRI</i>	-0.0340	0.0295	0.1070	0.0391	0.0027	0.0156	-0.0390	-0.0190	0.0456	-0.0449	1.0000

**Table 4: Baseline analyses**

<i>Variables</i>	<i>Deal Timing (1)</i>	<i>Deal Timing (2)</i>	<i>Deal Timing (3)</i>	<i>Deal Timing (4)</i>	<i>Deal Timing (5)</i>	<i>Deal Timing (6)</i>
<i>Log Acquirer ESG Rating</i>	0.2593** (2.4193)		0.3009*** (2.7820)			
<i>Log Target ESG Rating</i>		-0.2634* (-1.7771)	-0.0392 (-0.2300)			
<i>Log Difference in ESG Ratings</i>				0.2112** (2.4143)	0.2070** (2.3702)	
<i>Log Difference in E Pillar</i>						0.0073 (0.0945)
<i>Log Difference in S Pillar</i>						0.1692** (2.1308)
<i>Log Difference in G Pillar</i>						0.1362* (1.7861)
<i>Deal value(ln)</i>	-0.0926*** (-3.7336)	-0.1006*** (-4.0552)	-0.1083*** (-3.9762)	-0.1096*** (-4.1555)	-0.1095*** (-4.1336)	-0.1131*** (-3.9465)
<i>Same Sector</i>	0.0558 (0.5260)	0.1036 (0.9450)	0.0247 (0.2296)	0.0326 (0.3004)	0.0247 (0.2274)	-0.0062 (-0.0566)
<i>Cross Border</i>	-0.5664 (-0.7769)	-0.5807 (-0.7843)	-3.5976*** (-8.3907)	-0.5052 (-0.7036)	-3.5223*** (-8.5152)	-3.7441*** (-8.9848)
<i>Acquirer Size</i>	-0.1049** (-2.4663)		-0.1307** (-2.4102)	-0.0997** (-2.1623)	-0.0966** (-2.0951)	-0.0572 (-1.1264)
<i>Acquirer ROA</i>	-0.8365 (-0.9084)		-0.6217 (-0.6714)	-0.5520 (-0.5974)	-0.5517 (-0.5962)	-0.7261 (-0.7912)
<i>Acquirer Solvency Ratio</i>	1.4487*** (4.5804)		1.3562*** (4.2750)	1.3898*** (4.3036)	1.3579*** (4.2167)	1.3877*** (4.3501)
<i>Acquirer Current Ratio</i>	0.9025** (1.9663)		0.9569** (2.1667)	0.8228* (1.7970)	0.8737* (1.9248)	0.7260 (1.6368)
<i>Target Size</i>		0.0277 (0.8200)	0.0612 (1.5593)	0.0697* (1.8104)	0.0688* (1.7824)	0.0810** (1.9616)
<i>Target ROA</i>		-0.7455* (-1.7480)	-0.9362** (-2.1832)	-0.9522** (-2.2158)	-0.9291** (-2.1654)	-0.9636** (-2.2446)
<i>Target Solvency Ratio</i>		0.2663 (1.0741)	0.1972 (0.7342)	0.1989 (0.7487)	0.1943 (0.7292)	0.1541 (0.5784)
<i>Target Current Ratio</i>		0.7112 (1.3720)	1.0235** (2.1826)	1.0577** (2.2131)	1.0432** (2.1846)	1.1376*** (2.5918)
<i>Acquirer CRI</i>	-0.7312 (-1.0618)					
<i>Target CRI</i>		-0.1272 (-0.1972)				
<i>Differences in CRI</i>			0.3481*** (9.1491)		0.3444*** (9.2140)	0.3572*** (9.3578)
Observations	415	415	415	415	415	415
Pseudo-R <sup>2</sup>	0.0152	0.0079	0.0175	0.0162	0.0170	0.0179
Log-likelihood	-2060	-2075	-2055	-2058	-2056	-2054
Ph-test	11.56	10.34	18.57	11.55	12.25	15.85
p-value	0.2390	0.3236	0.1821	0.4824	0.5073	0.3920



**Table 5: Allowing for macroeconomic conditions and several types of fixed effects**

Variables	Deal Timing (1)	Deal Timing (2)	Deal Timing (3)	Deal Timing (4)	Deal Timing (5)	Deal Timing (6)	Deal Timing (7)
Log Difference in ESG Ratings	0.2115** (2.4184)	0.2115** (2.4189)	0.2429** (2.5652)				
Log Difference in E Pillar				0.0058 (0.0755)	0.0051 (0.0667)	0.0018 (0.0241)	-0.0280 (-0.3428)
Log Difference in S Pillar				0.1704** (2.1098)	0.1712** (2.1196)	0.1755** (2.1701)	0.1809** (2.1664)
Log Difference in G Pillar				0.1379* (1.7923)	0.1375* (1.7870)	0.1331* (1.7318)	0.1940** (2.2442)
Deal value(ln)	-0.1097*** (-4.1319)	-0.1097*** (-4.1312)	-0.1247*** (-4.3332)	-0.1134*** (-3.9353)	-0.1135*** (-3.9356)	-0.1136*** (-3.9196)	-0.1356*** (-4.6219)
Same Sector	0.0344 (0.3146)	0.0349 (0.3196)	0.0501 (0.4167)	0.0052 (0.0467)	0.0058 (0.0529)	-0.0006 (-0.0056)	0.0290 (0.2401)
Cross Border	-0.5188 (-0.7082)	-0.5091 (-0.7071)	-1.7288*** (-4.1261)	-0.6637 (-0.8904)	-0.6448 (-0.8837)	3.7060*** (8.2647)	-1.9037*** (-4.4192)
Acquirer Size	-0.0990** (-2.1204)	-0.0988** (-2.1166)	-0.0387 (-0.8001)	-0.0582 (-1.1141)	-0.0577 (-1.1056)	-0.0532 (-1.0200)	0.0085 (0.1550)
Acquirer ROA	-0.5598 (-0.6054)	-0.5622 (-0.6082)	-0.2442 (-0.2474)	-0.7471 (-0.8157)	-0.7494 (-0.8184)	-0.7444 (-0.8116)	-0.2446 (-0.2493)
Acquirer Solvency Ratio	1.3883*** (4.3020)	1.3879*** (4.3023)	1.4354*** (4.1647)	1.4185*** (4.4402)	1.4181*** (4.4413)	1.3847*** (4.3522)	1.4464*** (4.2894)
Acquirer Current Ratio	0.8219* (1.7933)	0.8217* (1.7925)	0.6796 (1.2496)	0.6729 (1.5047)	0.6727 (1.5042)	0.7236 (1.6295)	0.4701 (0.8705)
Target Size	0.0693* (1.8032)	0.0692* (1.8005)	0.0225 (0.5562)	0.0810** (1.9774)	0.0809** (1.9741)	0.0797* (1.9394)	0.0418 (1.0169)
Target ROA	-0.9494** (-2.2064)	-0.9485** (-2.2038)	-0.7074 (-1.6241)	-0.9808** (-2.2747)	-0.9801** (-2.2726)	-0.9586** (-2.2265)	-0.7268* (-1.6617)
Target Solvency Ratio	0.1973 (0.7441)	0.1968 (0.7423)	-0.0496 (-0.1841)	0.1541 (0.5817)	0.1538 (0.5806)	0.1514 (0.5699)	-0.1176 (-0.4363)
Target Current Ratio	1.0543** (2.1963)	1.0532** (2.1907)	0.8167 (1.4908)	1.1480*** (2.5938)	1.1477*** (2.5911)	1.1355** (2.5722)	0.9416* (1.7146)
Acquirer GDP Growth	0.2887 (0.1453)			0.5486 (0.2706)		-0.1323*** (-9.0576)	
Target GDP Growth		0.3796 (0.1915)			0.6471 (0.3204)	0.1331*** (8.6791)	
Observations	415	415	415	415	415	415	415
Acquiror-Target Country FEs	No	No	Yes	No	No	No	Yes
Year FEs	No	No	Yes	No	No	No	Yes
Pseudo-R <sup>2</sup>	0.0162	0.0162	0.0322	0.0170	0.0170	0.0179	0.0334
Log-likelihood	-2058	-2058	-2024	-2056	-2056	-2054	-2022
Ph-test	11.80	11.83	60.53	15.61	15.65	16.48	54.51
p-value	0.5443	0.5418	0.1250	0.4087	0.4057	0.4199	0.2104

Note: T-statistics in parentheses

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$