

The Effects of Global Leniency Programs on Mergers and Mergers

Ailin Dong

Massimo Massa

Alminas Žaldokas

Internet Appendix

I. Predicting Leniency Laws

In Table IA1, we report the coefficients of the Cox proportional hazard model in which we predict the passage of leniency law in the country. The most consistent predictor is the economic development of the country as proxied by the log GDP. Right-wing affiliation of the chief executive has a negative effect, as compared to center- or left-wing orientation. Finally, the financial development of the country does not have a strong predictive power.

II. Treatment-Time Fixed Effects

In Table IA2, we report the results where we add treatment-time fixed effects that are common for both treated and control firms in our analysis. In particular, we implement matched difference-in-differences estimator as in Gormley and Matsa (2011, 2016).¹ For each year when leniency program has been adopted in at least one country, we create the sample of treated firms if they are headquartered in the country that adopted the leniency program in that year. We then create the control sample from the firms that are not headquartered in these countries. For each of such cohort samples, we analyze firm-year observations in the five years before and the five years after the law is passed. The control sample of firms is restricted to the countries that do not pass the law during this time period. For instance, the year 1997 cohort includes Korean firms as treated sample and firms from the countries that do not pass the law between years 1992-2002 as the control sample. We pool these samples that are created for different years and estimate the average effect using the regression:

$$Margin_{ickt} = \alpha + \beta Leniency Law_{kt} + \gamma X_{ickt} + u_{ic} + v_{tjc} + \varepsilon_{ickt}, \quad (1)$$

¹ We refer to Gormley and Matsa (2016) for the discussion on the similarities between differences-in-differences methodology in our equation (2) in the manuscript and matching differences-and-differences estimator in our equation (1) in the Internet Appendix. We are unable to directly control for treatment-time fixed effects in our baseline estimation (2) as in our setup some control firms get eventually treated over time.

where as before i indexes firms headquartered in country k , k indexes countries, j indexes three-digit SIC industries, c indexes cohorts, and t indexes years. Instead of firm and industry-year fixed effects as before, we now include u_{ic} and v_{jtc} which correspond to firm-cohort and industry-year-cohort fixed effects. Effectively, industry-year-cohort fixed effects can then be interpreted as treatment-time fixed effects, estimated separately by each industry, because within each cohort, where treatment year is fixed, calendar years are equivalent to years relative to the treatment year.

In Column (1), we report the results for the gross margin as the outcome variable, and in Column (2), we report the results for the merger activity as the outcome variable.

III. Alternative Definitions of Merger Activity

One potential issue with our results is that our identification of merger activity relies on the match between the SDC Platinum database and the Compustat Global and North America datasets. However, SDC Platinum may not have captured all merger cases, and the match between the two data sources, especially for international firms, may not be perfect. To address this issue, we report the results of a specification in which we rely solely on the Compustat Global and North America datasets and focus on investment defined as the firm's change in property, plant and equipment and goodwill, adjusted for depreciation and amortization and scaled by one-year-lagged asset size. This measure thus includes both capital expenditures and mergers.

We report the results in Table IA3. In Column (1), we find that the investment of affected firms increases by 2.8%. The result is robust to controlling for firm and country characteristics (Column (2)) and industry*year fixed effects (Column (3)).

In addition, we deconstruct the total dollar value of acquisitions over the year, scaled by lagged assets, that we use as our main merger activity variable throughout the article, by taking into account only acquisitions in which the target and acquirer come from the same three-digit SIC industry and are headquartered in the same country. We indeed find that the passage of leniency laws increases the within-country acquisitions of competitors. In Table IA3, Column (4), we provide the specification without the controls; in Column (5), we control for firm and country characteristics; in Column (6), we control for industry*year fixed effects.

IV. Standard Errors

We explore the sensitivity of our estimates' statistical significance when we cluster our standard errors in a different way. In Table IA4, we report the estimates for gross profitability margin in Columns (1)-(4) and for merger activity in Columns (5)-(8). Whereas in our baseline specifications we cluster them at the country level, in Table IA4 we report that the statistical significance is consistent if we cluster them by industry*country (Columns (1) and (3)), double-cluster by country and year (Columns (2) and (4)), double-cluster by industry and year (Columns (3) and (5)), or double-cluster by country and industry (Columns (4) and (6)). The estimates remain statistically significant at conventional levels.

Moreover, as Bertrand, Duflo, and Mullainathan (2004) point out, it may not be possible in our context to properly account for the correct structure of the error covariance matrix simply by clustering the standard errors. Thus, we provide a test in which we randomize the assignment of leniency law years.

Specifically, we assign a random year for the passage of leniency laws in each country. We repeat this procedure 5,000 times to obtain 5,000 randomized leniency law samples. In each of these randomized leniency law samples, we run our baseline regressions as in Table 5, Column (1), and Table 9, Column

(1), and we save the relevant coefficients. Finally, we compare the coefficients from identification using our actual leniency laws with those obtained from identification using these pseudo leniency laws.

We report the distribution of the coefficients in Figure IA1. The first figure presents the coefficients in the cartel detection regressions as in Table 5, Column (1), and the second figure reports the coefficients in the merger regressions as in Table 9, Column (1). The figures demonstrate that our actual coefficients are larger in 4,819 of 5,000 (96.4%) randomized samples in the case of the effect on profitability, and they are smaller in 4,880 of 5,000 (97.8%) randomized samples in the case of the effect on merger activity. The non-parametric nature of this analysis suggests that the specification of the error covariance matrix does not affect our results.

V. By Industry Estimates

In Table IA5, we estimate our specifications industry by industry and determine whether industries where profitability dropped also exhibit an increase in merger activity. In particular, for each three-digit SIC industry, we separately estimate our baseline difference-in-difference specifications, reported in Table 5, Column (2), as well as in Table 9, Column (2). We obtain estimates of the leniency law effect for 282 industries for both gross margins and mergers. We find that for 136 of these industries, the effect on gross margins was negative and the effect on merger activity was positive, suggesting that in almost half of the industries these effects occur simultaneously. In the other cases, profitability decreased and merger activity decreased in 62 industries, profitability increased and merger activity increased in 56 industries, and profitability increased and merger activity dropped in 28 industries.

VI. Acquirer Performance

We further examine whether firms that are affected by leniency laws and subsequently pursue mergers are in fact able to improve their profitability, thereby negating the effect of the leniency laws. We illustrate the effect graphically by identifying firms that pursue merger activities within the first two years following leniency law passage. For each of these firms, we then find one control firm that is in the same country and three-digit SIC industry, and the closest in terms of profitability two years before the leniency law passage. We assume that these firms are exposed to leniency laws in similar ways but pursue different strategies: some acquire other firms, whereas others do not. We present the differences in Figure IA2. Although this figure does not establish causality, it displays a clear correlation: firms that pursue mergers after leniency laws experience better outcomes in product markets than those that do not pursue mergers.

We recognize that firms that pursue mergers could be different from those that do not, which would create a self-selection bias (Li and Prabhala, 2010; Kwoka, 2014). In Figure IA3, in the spirit of Savor and Lu (2009) and Seru (2014), we limit the control group to firms that announced mergers in the first two years following leniency law passage but then failed to complete the attempted mergers for some reason. Both the treatment and control firms attempted to engage in mergers, but only the treatment firms succeeded. We find that the profitability of firms with successful mergers suffered less than the profitability of firms with failed mergers following the implementation of leniency laws.

References

- Bertrand, M., Duflo, E., and Mullainathan, S. “How Much Should We Trust Differences-in-Differences Estimates?” *Quarterly Journal of Economics*, Vol. 119 (2004), pp. 249-275.
- Gormley, T. and Matsa, D. “Growing Out of Trouble: Corporate Responses to Liability Risk.” *Review of Financial Studies*, Vol. 24 (2011), pp. 2781-2821.
- Gormley, T. and Matsa, D. “Playing It Safe? Managerial Preferences, Risk, and Agency Conflicts.” *Journal of Financial Economics*, 122 (2016), pp. 431-455.
- Kwoka, J. *Mergers, Merger Control, and Remedies*. MIT Press, 2014.
- Li, K. and Prabhala, N. R. “Self-Selection Models in Corporate Finance.” In Eckbo, B. E. ed., *Corporate Takeovers: Modern Empirical Developments*. Elsevier Academic Press, 2010.
- Savor, P. and Lu, Q. “Do Stock Mergers Create Value for Acquirers?” *Journal of Finance*, Vol. 64 (2009), pp. 1059-1095.
- Seru, A. 2014, “Firm Boundaries Matter: Evidence from Conglomerates and R&D Activity.” *Journal of Financial Economics*, Vol. 111 (2014), pp. 381-405.

Table IA1. Predicting leniency laws

This table reports the coefficients from the Cox proportional hazards model, estimated at the country level over the 1990-2012 period. The hazard is the passage of leniency laws. Column (1) uses macro-economic variables and region dummies. Column (2) also includes the political orientation of the government. Column (3) includes two measures of financial development. We report t-statistics in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)	(3)
Log GDP	0.647*** (2.657)	0.794*** (4.079)	0.734*** (2.704)
GDP growth	1.174 (0.897)	1.528 (0.784)	0.871 (0.514)
Unemployment rate	0.038 (0.801)	0.025 (0.447)	-0.007 (-0.144)
Exports as % of GDP	-0.004 (-0.927)	-0.002 (-0.458)	-0.007 (-1.348)
Latin America	-0.978 (-1.035)	-0.837 (-0.755)	-2.291* (-1.742)
Western Europe	-0.612 (-0.618)	-0.743 (-0.648)	-1.904 (-1.586)
Central and Eastern Europe	-0.199 (-0.238)	-0.456 (-0.523)	-1.718 (-1.485)
North America	2.338* (1.890)	1.778 (1.261)	0.954 (0.704)
Asia	-0.696 (-0.767)	0.175 (0.166)	-1.836* (-1.787)
Oceania	0.134 (0.123)	-0.037 (-0.026)	-1.302 (-1.025)
Right-wing government party		0.550 (0.801)	
Right-wing chief executive		-1.609*** (-2.892)	
Private credit as % of GDP			-0.007 (-1.630)
Chinn-Ito index			0.102 (0.553)
N	823	620	728

Table IA2. Matched differences-in-differences

We consider all Compustat Global and North America firms over 1990-2012. This table reports the OLS regressions, where in Column (1) the dependent variable is the gross margin, winsorized at the 1% level, and in Column (2) the dependent variable is the total dollar value of mergers and acquisitions over the year, scaled by lagged assets and winsorized at 1%. All regressions include firm fixed effects and time fixed effects. Standard errors are clustered at the country level.

Our main variable of interest is the leniency law dummy. The methodology follows matched differences-in-differences estimator in Gormley and Matsa (2011, 2016). We report t-statistics in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)
Leniency law	-0.077*** (-4.516)	0.006*** (3.446)
Controls		Y
Cohort*firm f.e.		Y
Cohort*industry*year f.e.		Y
R-squared	0.616	0.128
N	1,815,734	1,976,299

* p<0.10, ** p<0.05, *** p<0.01

Table IA3. Robustness to definitions of merger activity

We consider all Compustat Global and North America firms over 1990-2012. This table reports the OLS regressions, where the dependent variable in Columns (1)-(3) is the change in the value of tangible and intangible assets, adjusted for depreciation, scaled by last year's assets and winsorized at 1%, and the dependent variable in Columns (4)-(6) is the total dollar value of acquisitions in the same industry (three-digit SIC) and located in the same country over the year, scaled by lagged assets and winsorized at 1%. All of the regressions include firm fixed effects and time fixed effects. Standard errors are clustered at the country level.

Our main variable of interest is the leniency law dummy. In Columns (1) and (4), we test the effect without any additional controls. In Columns (2) and (5), we control for firm and country characteristics: assets, leverage, GDP per capita, unemployment, and imports as % of GDP. In Columns (3) and (6), we control for industry (three-digit SIC)*year fixed effects. We report t-statistics in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)
Leniency law	0.028** (2.615)	0.031*** (2.825)	0.022** (2.473)	0.003*** (3.426)	0.003*** (3.278)	0.003*** (3.321)
Controls	N	Y	Y	N	Y	Y
Firm f.e.	Y	Y	Y	Y	Y	Y
Year f.e.	Y	Y	N	Y	Y	N
Industry*year f.e.	N	N	Y	N	N	Y
R-squared	0.148	0.176	0.193	0.063	0.07	0.068
N	394,246	336,104	335,975	541,869	432,447	432,330

* p<0.10, ** p<0.05, *** p<0.01

Table IA4. Robustness to estimation of standard errors

We consider all Compustat Global and North America firms over 1990-2012. This table reports the OLS regressions, where the dependent variable in Columns (1)-(4) is the gross margin, winsorized at the 1% level, and in Columns (5)-(8) is the total dollar value of mergers and acquisitions over the year, scaled by lagged assets and winsorized at 1%. All of the regressions include firm fixed effects and industry*time fixed effects. Standard errors are clustered at the country level.

Our main variable of interest is the leniency law dummy. In Columns (1) and (5), we cluster standard errors by industry*country. In Columns (2) and (6), we double-cluster standard errors by country and year. In Columns (3) and (7), we double-cluster standard errors by industry and year. In Columns (4) and (8), we double-cluster standard errors by industry and year. We report t-statistics in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Leniency law	-0.050*** (-7.647)	-0.050** (-2.344)	-0.050*** (-3.846)	-0.050** (-2.451)	0.016*** (8.158)	0.016*** (3.516)	0.016*** (5.074)	0.016*** (3.715)
Controls	Y	Y	Y	Y	Y	Y	Y	Y
Firm f.e.	Y	Y	Y	Y	Y	Y	Y	Y
Industry*year f.e.	Y	Y	Y	Y	Y	Y	Y	Y
R-squared	0.525	0.525	0.524	0.524	0.084	0.084	0.084	0.084
N	401,461	401,461	401,461	401,461	432,330	432,330	432,330	432,330

* p<0.10, ** p<0.05, *** p<0.01

Table IA5. By industry estimates

This table reports separate estimates of our baseline difference-in-difference specifications, reported in Table 5, Column (2), and in Table 9, Column (2), for each three-digit SIC industry in our sample.

SIC3 industry	Obs	Effect on margins	Effect on mergers	SIC3 industry	Obs	Effect on margins	Effect on mergers
010	1,469	-0.070	-0.002	239	378	0.029	0.007
020	493	-0.146	0.024	240	1,279	-0.168	0.003
070	293	-0.057	-0.024	242	424	-0.051	-0.016
080	402	-0.194	0.008	243	596	-0.002	0.001
090	256	0.179	0.008	245	391	0.017	0.013
100	6,724	0.077	0.003	251	944	-0.037	0.004
104	4,752	-0.218	0.011	252	504	0.012	0.001
109	725	0.544	0.016	253	224	-0.030	-0.021
122	1,226	-0.039	-0.009	254	113	0.018	-0.007
131	8,975	-0.124	0.002	259	166	-0.008	-0.024
138	2,334	-0.131	0.015	260	951	-0.022	0.005
140	1,249	-0.250	0.014	261	232	0.070	0.038
150	1,771	-0.043	0.004	262	1,086	-0.035	0.004
152	1,222	0.011	-0.008	263	470	-0.005	0.012
153	959	-0.106	0.011	265	698	0.026	0.007
154	743	-0.065	-0.006	267	1,432	0.013	0.007
160	3,408	-0.024	-0.001	270	729	-0.093	-0.006
162	581	-0.097	-0.002	271	910	-0.241	0.023
170	1,070	-0.065	0.005	272	504	-0.023	-0.003
173	595	0.019	0.049	273	673	-0.093	0.003
200	2,009	-0.030	0.002	274	473	0.073	0.050
201	1,004	-0.002	0.018	275	1,207	0.020	-0.003
202	893	-0.116	-0.004	276	157	-0.024	0.005
203	1,184	-0.054	0.010	277	36	-0.224	0.008
204	1,234	-0.007	0.002	278	119	-0.126	0.024
205	596	0.116	-0.001	279	58	-0.076	0.035
206	1,330	-0.017	0.008	280	2,120	-0.027	0.007
207	994	-0.170	-0.005	281	1,645	0.031	-0.005
208	4,074	-0.059	0.000	282	2,398	-0.027	0.005
209	1,925	-0.047	-0.015	283	15,394	-0.111	0.003
210	177	-0.009	-0.019	284	2,077	-0.021	0.016
211	270	0.016	0.012	285	779	-0.007	0.001
220	3,284	0.018	0.001	286	1,491	0.017	0.004
221	333	-0.030	-0.004	287	1,608	-0.173	0.015
222	236	0.013	0.011	289	1,439	-0.087	0.009
225	379	-0.089	0.006	291	1,978	-0.004	0.007
227	239	-0.139	-0.021	295	142	-0.015	0.002
230	2,540	0.010	-0.001	299	405	-0.181	0.021
232	432	-0.035	0.004	301	557	-0.020	0.003
233	603	-0.024	-0.001	302	239	-0.035	0.002
234	218	-0.115	-0.020	305	447	0.003	0.002

SIC3 industry	Obs	Effect on margins	Effect on mergers	SIC3 industry	Obs	Effect on margins	Effect on mergers
306	672	-0.007	-0.029	365	1,469	-0.030	0.008
308	3,603	-0.003	-0.006	366	5,872	-0.056	0.010
310	377	-0.027	-0.019	367	9,584	-0.074	0.000
314	630	-0.132	0.006	369	1,713	-0.089	0.005
321	226	0.056	-0.017	370	184	-0.403	0.041
322	625	-0.009	0.003	371	6,615	-0.008	0.001
323	180	-0.013	0.034	372	1,222	-0.035	0.021
324	1,393	-0.012	-0.001	373	700	0.004	-0.001
325	878	0.007	-0.014	374	196	-0.269	-0.016
326	584	0.016	-0.023	375	432	-0.119	0.001
327	1,490	-0.006	-0.002	376	150	0.043	0.127
328	103	-0.029	0.055	379	212	0.052	0.039
329	911	-0.151	-0.001	381	932	-0.043	0.033
330	227	-0.158	-0.006	382	5,023	-0.028	0.006
331	4,660	-0.032	0.005	384	6,866	-0.091	0.005
332	336	0.006	0.013	385	347	-0.031	0.011
333	1,142	0.052	0.009	386	757	-0.037	0.006
334	154	-0.251	-0.051	387	218	0.007	0.027
335	2,324	-0.044	0.009	391	417	0.005	0.021
336	372	-0.004	0.004	393	154	0.031	0.011
339	247	-1.033	-0.010	394	1,298	-0.031	0.016
341	466	0.102	0.022	395	296	-0.068	-0.006
342	541	0.014	-0.001	396	215	-0.024	0.011
343	475	0.030	-0.012	399	1,037	-0.023	0.004
344	2,121	-0.038	0.008	401	803	-0.068	-0.001
345	373	0.030	0.005	410	789	0.029	0.010
346	601	-0.130	0.056	420	145	-0.033	-0.018
347	336	-0.041	0.031	421	1,730	-0.060	0.003
348	189	0.047	-0.014	422	569	-0.021	-0.014
349	1,186	-0.008	0.003	440	2,366	-0.105	0.003
350	464	-0.114	-0.004	441	1,585	-0.124	0.006
351	644	-0.096	0.020	451	1,547	-0.147	0.006
352	601	-0.096	0.006	452	219	0.051	0.007
353	2,447	-0.012	0.006	458	474	0.006	0.008
354	2,047	-0.013	0.000	461	194	-0.052	0.093
355	3,917	-0.129	0.013	470	1,610	-0.103	0.001
356	2,709	-0.037	0.005	473	1,292	-0.062	0.015
357	5,535	-0.107	0.013	481	4,764	-0.105	-0.002
358	1,548	-0.067	0.001	482	73	-1.054	-0.143
359	634	0.052	0.003	483	1,858	-0.048	0.044
360	1,176	0.019	-0.002	484	1,115	-0.129	0.006
361	1,010	-0.012	0.007	488	324	-0.045	0.017
362	1,485	0.100	0.002	489	2,277	-0.190	0.000
363	1,138	-0.018	0.017	490	56	0.089	0.025
364	1,192	0.062	-0.006	491	5,894	-0.081	0.009

SIC3 industry	Obs	Effect on margins	Effect on mergers	SIC3 industry	Obs	Effect on margins	Effect on mergers
492	2,539	-0.101	0.011	599	879	-0.100	0.012
493	1,977	-0.136	0.006	602	9,399	-0.020	0.001
494	975	-0.041	0.003	603	4,330	0.020	0.003
495	1,643	-0.129	0.024	609	274	0.412	0.075
496	57	0.324	0.013	611	96	-52.339	0.001
499	1,310	0.040	0.000	614	518	-0.197	-0.004
500	829	0.054	0.000	615	851	0.242	0.010
501	720	0.034	0.018	616	559	0.289	0.000
502	101	-0.003	-0.030	617	196	0.109	-0.002
503	659	-0.165	-0.012	619	292	-0.380	-0.007
504	2,337	-0.078	-0.009	620	279	-0.326	-0.005
505	919	-0.009	0.006	621	1,230	-0.041	0.025
506	2,447	-0.040	0.007	628	800	-0.127	-0.006
507	574	-0.078	0.021	631	770	0.033	0.005
508	1,632	0.044	-0.007	632	622	-0.314	0.061
509	791	-0.012	0.027	633	1,648	0.452	-0.017
511	447	-0.203	0.009	636	85	-9.681	-0.004
512	1,039	-0.063	0.012	639	32	-3.287	-7.981
513	793	-0.045	-0.017	641	1,056	0.066	-0.004
514	1,542	0.033	0.008	650	243	0.284	-0.008
515	319	-0.077	0.012	651	1,221	-0.200	-0.004
516	539	0.034	0.016	653	495	-0.258	0.001
517	1,013	-0.296	-0.020	655	635	0.019	0.002
519	471	0.022	0.015	672	40	-0.078	0.000
520	251	-0.012	0.029	679	4,360	-0.206	0.001
521	615	-0.035	0.003	700	137	-0.104	0.033
531	2,015	-0.029	0.002	701	2,802	-0.021	-0.003
533	571	0.018	-0.002	720	701	-0.019	0.010
539	649	-0.010	0.003	731	1,490	0.035	0.031
540	253	-0.025	-0.019	732	298	-0.066	-0.053
541	2,609	-0.026	0.003	733	253	0.030	0.024
550	1,357	0.044	0.002	734	426	0.009	-0.001
553	287	-0.081	0.004	735	1,205	-0.035	-0.020
560	802	0.018	0.001	736	1,860	-0.069	0.013
562	604	0.031	-0.008	737	28,095	-0.078	0.003
565	591	-0.059	0.010	738	2,973	-0.100	0.014
566	285	-0.042	-0.008	750	306	-0.081	0.044
570	544	-0.073	-0.001	751	411	0.007	0.000
571	341	0.031	0.004	760	135	-0.016	-0.072
573	810	-0.085	0.028	781	1,528	-0.070	0.025
581	4,023	-0.009	0.008	782	443	0.078	0.057
590	689	0.009	0.021	783	337	-0.083	0.036
591	775	0.035	0.005	784	123	0.066	0.050
594	1,305	-0.015	0.010	790	580	-0.170	0.006
596	1,504	-0.062	-0.003	794	741	0.015	0.001

SIC3 industry	Obs	Effect on margins	Effect on mergers
799	2,589	-0.109	0.003
800	332	-0.034	-0.058
801	285	0.012	0.007
805	499	-0.064	0.006
806	924	-0.087	0.029
807	584	0.912	0.011
808	371	0.002	0.060
809	825	-0.099	0.005
811	45	1.384	-0.135
820	1,289	-0.020	0.010
830	223	0.016	0.033
835	79	0.052	0.270
840	63	-0.194	0.000
870	834	-0.030	-0.022
871	2,495	-0.062	0.009
872	210	-0.012	0.026
873	1,285	-0.181	-0.013
874	1,855	-0.169	0.034
890	151	-0.538	0.025
999	5,402	-0.002	-0.002

Figure IA1. Simulated distributions of leniency laws

We plot the distributions of the coefficients of the regressions based on the randomized passage of leniency laws. We randomize the passage of laws in 63 countries 5000 times. The first figure presents the coefficients on profitability as in Table 5, Column (1). The second figure reports the coefficients on mergers as in Table 9, Column (1). Vertical lines indicate the coefficient from the actual regression.

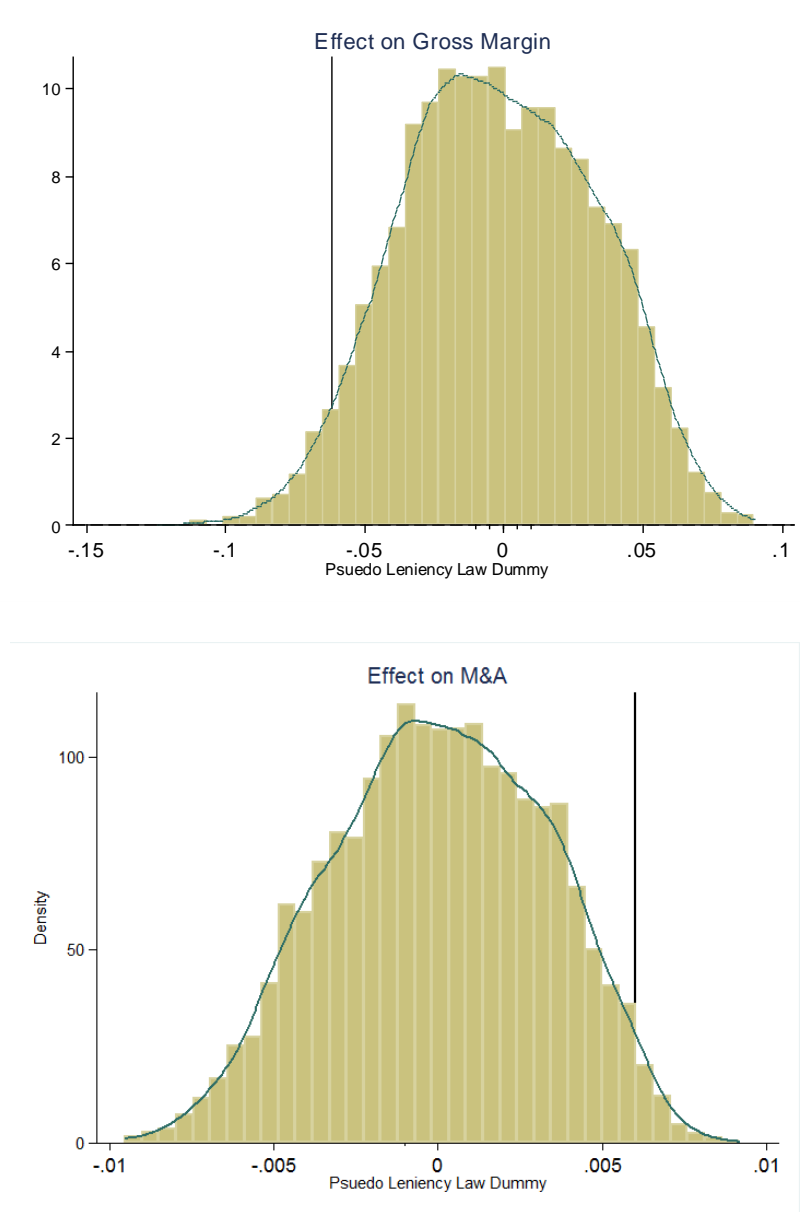


Figure IA2. Merger activity and profitability

We plot the average gross margin for firms that were affected by a leniency law and pursued mergers in the first two years after the passage of the leniency law. We plot gross margins for the period from two years prior to six years after the leniency law.

The control sample consists of firms that are in the same country and industry as the treated firm but did not pursue mergers in the first two years after the passage of a leniency law.

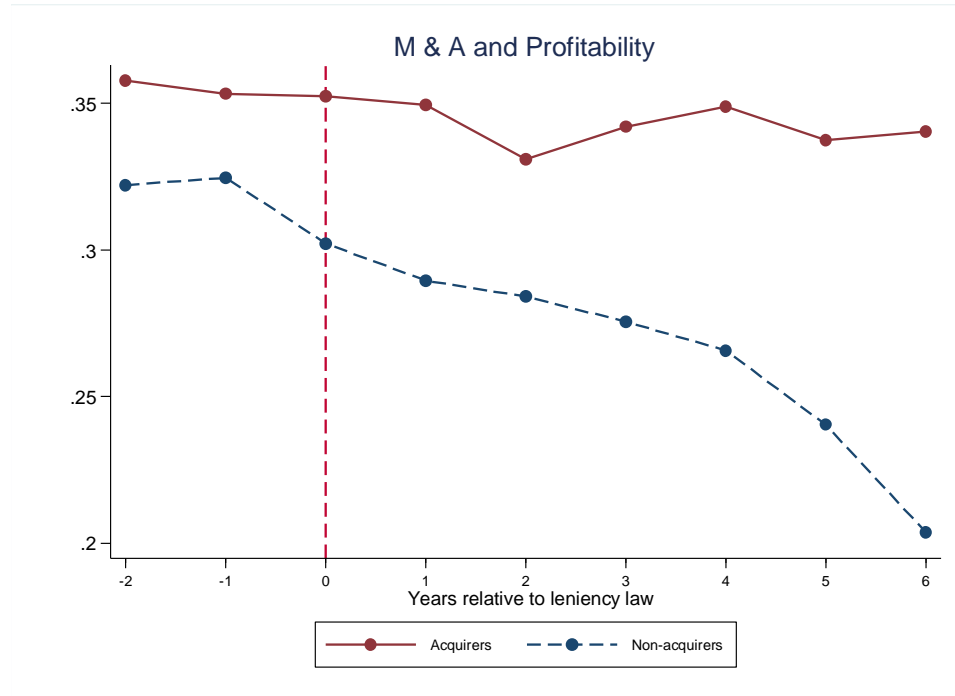


Figure IA3. Failed mergers as controls and profitability

We plot the average gross margin for firms that were affected by a leniency law and pursued mergers in the first two years after the passage of the leniency law. We plot gross margins for the period from two years prior to six years after the leniency law.

The control sample consists of firms that are in the same country and industry as the treated firm that also announced mergers in the first two years after the passage of a leniency law but then failed to complete the attempted mergers.

