

Internet Appendix to “Do Excess Control Rights Benefit Creditors? Evidence from Dual-Class Firms”

Table A1. Determinants of Risk and Loan Spreads within Single-Class and Dual-Class Firms

This table presents the determinants of firm risks (Panel A) and loan spreads (Panel B) within the sample of dual-class firms and the matched sample of single-class firms separately. Columns 3 and 6 present the F-statistic of Chow tests testing the equality of coefficients across the two samples. All independent variables are lagged by one year relative to the dependent variables. All regressions include industry (three-digit SIC code) interacted with year fixed effects. Robust standard errors clustered at the firm level are reported in brackets. Superscripts ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. Risk-Taking

	ln(ROA_VOLATILITY)			ln(ASSET_VOLATILITY)		
	Matched single-class	Dual-class	F-stat of Chow test	Matched single-class	Dual-class	F-stat of Chow test
	1	2	3	4	5	6
CASH-FLOW_RIGHTS	-0.061 [0.650]	0.170 [0.444]	0.00	0.438 [0.304]	0.130 [0.329]	0.35
CASH-FLOW_RIGHTS ²	0.298 [0.858]	-0.371 [0.489]	0.14	-0.572 [0.396]	-0.175 [0.364]	0.63
FAMILY_FIRM	-0.039 [0.060]	-0.032 [0.057]	0.37	-0.011 [0.036]	-0.042 [0.037]	0.97
ln(TOTAL_ASSETS)	-0.106*** [0.026]	-0.117*** [0.018]	0.52	-0.144*** [0.012]	-0.140*** [0.016]	0.00
TANGIBILITY	-0.838*** [0.214]	-0.274* [0.151]	18.29***	-0.004 [0.117]	-0.170 [0.119]	0.12
TOBIN'S_Q	0.003 [0.020]	0.051*** [0.017]	0.33	-0.004 [0.006]	-0.006 [0.007]	0.00
PROFITABILITY	-0.634*** [0.146]	-0.681*** [0.148]	0.65	-0.199*** [0.058]	-0.173** [0.075]	0.01
LEVERAGE	0.084 [0.127]	-0.183* [0.107]	2.04	-0.036 [0.061]	-0.128* [0.075]	0.61
SALES_GROWTH	0.144* [0.082]	0.196*** [0.075]	0.73	0.124*** [0.034]	0.172*** [0.033]	1.35
PAYOUT	0.122 [0.524]	0.524** [0.249]	0.88	1.034*** [0.372]	0.324** [0.157]	10.67***
Industry × year FEs	Yes	Yes		Yes	Yes	
Observations	2,501	2,501		2,501	2,501	
Adjusted R ²	0.701	0.538		0.581	0.433	

Panel B. Loan Spreads

	ln(SPREAD)		
	Matched single-class	Dual-class	F-stat of Chow test
	1	2	3
CASH-FLOW_RIGHTS	0.686** [0.275]	0.487 [0.580]	2.63
CASH-FLOW_RIGHTS ²	-0.257 [0.453]	-0.625 [0.772]	0.27
FAMILY_FIRM	-0.155** [0.071]	-0.050 [0.074]	1.40
ln(TOTAL_ASSETS)	-0.079** [0.034]	-0.084*** [0.028]	1.16
TANGIBILITY	-0.006 [0.223]	0.169 [0.180]	0.00
TOBIN'S_Q	-0.061* [0.036]	-0.152*** [0.038]	2.77*
PROFITABILITY	-1.660*** [0.391]	-0.796* [0.410]	2.64
LEVERAGE	0.896*** [0.199]	0.613*** [0.153]	2.01
SALES_GROWTH	0.077 [0.126]	0.121 [0.134]	0.05
PAYOUT	0.075 [0.321]	0.174 [0.178]	0.08
ln(FACILITY_AMOUNT)	0.003 [0.022]	-0.008 [0.018]	0.47
ln(MATURITY)	0.011 [0.032]	-0.058 [0.039]	1.87
COVENANT_INDEX	0.026* [0.015]	0.033** [0.013]	0.00
NON-INV_GRADE	0.221** [0.099]	0.002 [0.084]	1.60
PERFORMANCE_PRICING	-0.144** [0.066]	-0.154*** [0.054]	0.45
Industry × year FEs	Yes	Yes	
Observations	1,243	1,268	
Adjusted R ²	0.675	0.544	

Table A2. Expected Loss Given Default of Dual-Class versus Single-Class Firms

This table examines the effect of dual-class share structure on firms' expected loss given default (LGD). *LGD* is estimated following Seidler and Jakubik (2009) based on the Merton distance to default model. Panel A presents the OLS regression results. Panel B presents the results from the treatment regression where *DUAL* is instrumented with *IV_NAME*. The *full sample* contains dual-class firms and all single-class firms from 1995 to 2002. The *matched sample* contains dual-class firms and matched single-class firms over the same period. *DUAL* is a dummy equal to one if the firm is a dual-class firm in a given year. *WEDGE* is the difference between insider voting rights and cash-flow rights. All independent variables are lagged by one year relative to the dependent variables. All regressions include industry (three-digit SIC code) interacted with year fixed effects. Robust standard errors clustered at the firm level are reported in brackets. Superscripts ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. OLS Regressions

	Full sample				Matched sample			
	1	2	3	4	5	6	7	8
DUAL	-0.019*** [0.007]	-0.020*** [0.007]			-0.021** [0.009]	-0.022** [0.009]		
WEDGE			-0.048** [0.022]	-0.057*** [0.022]			-0.046* [0.025]	-0.052** [0.025]
CASH-FLOW_RIGHTS	0.030 [0.024]	0.056** [0.023]	0.034 [0.024]	0.058** [0.023]	0.192*** [0.074]	0.194*** [0.071]	0.187** [0.074]	0.188*** [0.071]
CASH-FLOW_RIGHTS ²	-0.067* [0.035]	-0.096*** [0.034]	-0.065* [0.035]	-0.094*** [0.034]	-0.205** [0.088]	-0.225*** [0.085]	-0.193** [0.089]	-0.211** [0.086]
FAMILY_FIRM	-0.020*** [0.004]	-0.018*** [0.004]	-0.020*** [0.004]	-0.018*** [0.004]	-0.004 [0.010]	-0.002 [0.010]	-0.005 [0.010]	-0.003 [0.010]
ln(TOTAL_ASSETS)	-0.043*** [0.001]	-0.041*** [0.001]	-0.043*** [0.001]	-0.041*** [0.001]	-0.044*** [0.003]	-0.038*** [0.003]	-0.044*** [0.003]	-0.038*** [0.003]
TANGIBILITY	0.073*** [0.012]	0.055*** [0.012]	0.073*** [0.012]	0.055*** [0.012]	0.033 [0.029]	0.032 [0.028]	0.034 [0.029]	0.033 [0.028]
TOBIN'S_Q		0.277*** [0.008]		0.277*** [0.008]		0.268*** [0.020]		0.269*** [0.020]
PROFITABILITY		-0.020*** [0.001]		-0.020*** [0.001]		-0.024*** [0.003]		-0.024*** [0.003]
LEVERAGE		0.071*** [0.006]		0.071*** [0.006]		0.156*** [0.021]		0.156*** [0.021]
SALES_GROWTH		-0.008** [0.003]		-0.008** [0.003]		-0.002 [0.011]		-0.001 [0.011]
PAYOUT		-0.140*** [0.039]		-0.141*** [0.039]		-0.117** [0.054]		-0.117** [0.054]
Industry × year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	29,814	29,814	29,814	29,814	5,002	5,002	5,002	5,002
Adjusted R ²	0.296	0.338	0.296	0.338	0.360	0.395	0.359	0.394

Panel B. Treatment Regression

Dependent variable:	LGD
DUAL	-0.097*** [0.022]
IV_NAME in 1 st stage	0.446*** [0.081]
ρ	0.221
Wald test of $\rho = 0$	
Chi-squared	14.01***
Other controls	Yes
Industry \times year FEs	Yes
Observations	29,814

Table A3. Difference-in-Differences Analysis of Loan Covenants around Unification

This table presents the results of difference-in-differences analysis examining the effect of share-class unifications on loan covenants in newly originated loans. The sample contains newly originated loan facilities by unifying and matched non-unifying firms from three years before to three years after unification. Each unifying firm is matched to a non-unifying firm that remains dual-class throughout and is in the same industry (one-digit SIC code), with the same family firm status, and is closest in size, insider cash-flow rights, and wedge based on Mahalanobis distance in the year before unification. *Post* indicates years of and after unifications. *TREAT* indicates unifying firms. *EXCESS_CASH-FLOW_SWEEP* (*ASSET_SALES_SWEEP*) is an indicator that is equal to one if a loan facility has an excess cash-flow sweep covenant (asset sale sweep covenant). *TUNNELING-RELATED_COVENANTS* is the sum of the indicators for excess cash-flow sweep and asset sale sweep. *OTHER_COVENANT* is the sum of seven other covenant type indicators (i.e., debt issuance sweep, equity issuance sweep, insurance sweep, dividend restriction, loan security, net worth covenant, and financial covenant). All regressions include firm fixed effects and year fixed effects. Robust standard errors clustered at the firm level are reported in brackets. Superscripts ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

	EXCESS _CASH-FLOW _SWEEP	ASSET_SALE _SWEEP	TUNNELIN- RELATED _COVENANTS	OTHER_ COVENANTS
	1	2	3	4
POST	0.192 [0.277]	-0.061 [0.182]	0.069 [0.265]	0.376 [0.646]
TREAT × POST	-0.405** [0.161]	-0.124 [0.117]	-0.466* [0.260]	-1.017 [1.211]
Firm FEs	Yes	Yes	Yes	Yes
Year FEs	Yes	Yes	Yes	Yes
No. of observations	201	201	201	201
Adjusted R ²	0.622	0.567	0.594	0.676

Table A4. Subsample Analysis within Family Firms

This table repeats the main analysis on the subsample of family firms. Family firms are defined as firms whose founding family or their descendants collectively owns a 5% or larger voting stake in the firm. Panel A presents the results from OLS regressions and Panel B presents the results from treatment regressions where *DUAL* is instrumented with *IV_NAME*. All independent variables are lagged by one year relative to the dependent variables. All regressions include industry (three-digit SIC code) interacted with year fixed effects. Robust standard errors clustered at the firm level are reported in brackets. Superscripts ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. OLS Regressions

	ln(ROA_ VOLATILITY)	ln(ASSET _VOLATILITY)	R&D_TO _SALES	CAPEX_TO _SALES	R&D_SHARE	EDF	COVENANT _VIOLATION	ln(SPREAD)
	1	2	3	4	5	6	7	8
DUAL	-0.125*** [0.036]	-0.058** [0.028]	-0.190** [0.096]	0.016 [0.062]	-0.158** [0.078]	-0.018*** [0.007]	-0.066*** [0.017]	-0.070** [0.032]
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry \times year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,741	8,741	8,741	8,741	8,741	8,741	8,741	6,007
Adjusted R ²	0.586	0.273	0.677	0.473	0.667	0.309	0.107	0.663

Panel B. Treatment Regressions

	ln(ROA_ VOLATILITY)	ln(ASSET _VOLATILITY)	R&D_TO _SALES	CAPEX_TO _SALES	R&D_SHARE	EDF	COVENANT _VIOLATION	ln(SPREAD)
	1	2	3	4	5	6	7	8
DUAL	-0.289*** [0.099]	-0.099* [0.051]	-0.808*** [0.205]	0.078 [0.426]	-0.318*** [0.115]	-0.048** [0.023]	-0.177* [0.090]	-0.204** [0.093]
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry \times year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	8,741	8,741	8,741	8,741	8,741	8,741	8,741	6,007

Table A5. Subsample Analysis within Non-Family Firms

This table repeats the main analysis on the subsample of non-family firms. Family firms are defined as firms whose founding family or their descendants collectively owns a 5% or larger voting stake in the firm. Panel A presents the results from OLS regressions and Panel B presents the results from treatment regressions where *DUAL* is instrumented with *IV_NAME*. All independent variables are lagged by one year relative to the dependent variables. All regressions include industry (three-digit SIC code) interacted with year fixed effects. Robust standard errors clustered at the firm level are reported in brackets. Superscripts ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. OLS Regressions

	ln(ROA_ VOLATILITY)	ln(ASSET _VOLATILITY)	R&D_TO _SALES	CAPEX_TO _SALES	R&D_SHARE	EDF	COVENANT _VIOLATION	ln(SPREAD)
	1	2	3	4	5	6	7	8
DUAL	-0.032 [0.034]	-0.068*** [0.025]	-0.231*** [0.075]	-0.016 [0.048]	-0.168** [0.066]	-0.016** [0.007]	-0.025* [0.015]	-0.091*** [0.033]
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry \times year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	21,073	21,073	21,073	21,073	21,073	21,073	21,073	12,375
Adjusted R ²	0.596	0.362	0.671	0.476	0.648	0.355	0.109	0.675

Panel B. Treatment Regressions

	ln(ROA_ VOLATILITY)	ln(ASSET _VOLATILITY)	R&D_TO _SALES	CAPEX_TO _SALES	R&D_SHARE	EDF	COVENANT _VIOLATION	ln(SPREAD)
	1	2	3	4	5	6	7	8
DUAL	-0.166* [0.096]	-0.115*** [0.044]	-0.861*** [0.271]	0.121 [0.135]	-0.445*** [0.119]	-0.059*** [0.014]	-0.035*** [0.004]	-0.231** [0.110]
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry \times year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	21,073	21,073	21,073	21,073	21,073	21,073	21,073	12,375

Table A6. Controlling for the Entrenchment Index

This table presents the effect of dual-class share structure on various outcomes examined in Tables 2 to 6, controlling for firm-level governance measured by the entrenchment index (E-index) from Bebchuk, Cohen, and Ferrell (2008). The E-index captures the presence of six governance provisions: staggered boards, limits to shareholder bylaw amendments, poison pills, golden parachutes, and supermajority requirements for mergers and charter amendments. Panel A presents the results from OLS regressions and Panel B presents the results from treatment regressions where *DUAL* is instrumented with *IV_NAME*. The samples include all dual-class and single-class firms from 1995 to 2002 for which the E-index is available. All independent variables are lagged by one year relative to the dependent variables. All regressions include industry (three-digit SIC code) interacted with year fixed effects. Robust standard errors clustered at the firm level are reported in brackets. Superscripts ***, **, and * correspond to statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A. OLS Regressions

	ln(ROA_ VOLATILITY)	ln(ASSET _VOLATILITY)	R&D_TO _SALES	CAPEX_TO _SALES	R&D_SHARE	EDF	COVENANT _VIOLATION	ln(SPREAD)
	1	2	3	4	5	6	7	8
DUAL	-0.102** [0.048]	-0.047** [0.021]	-0.352*** [0.135]	0.001 [0.082]	-0.224* [0.116]	-0.015** [0.007]	-0.060*** [0.017]	-0.095** [0.039]
E-INDEX	-0.023** [0.009]	-0.026*** [0.006]	-0.054* [0.030]	-0.045*** [0.016]	0.008 [0.024]	-0.004*** [0.001]	-0.008** [0.003]	-0.004 [0.009]
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry × year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,689	9,689	9,689	9,689	9,689	9,689	9,689	6,854
Adjusted R ²	0.583	0.209	0.635	0.466	0.641	0.347	0.170	0.728

Panel B. Treatment Regressions

	ln(ROA_ VOLATILITY)	ln(ASSET _VOLATILITY)	R&D_TO _SALES	CAPEX_TO _SALES	R&D_SHARE	EDF	COVENANT _VIOLATION	ln(SPREAD)
	1	2	3	4	5	6	7	8
DUAL	-0.224** [0.102]	-0.072* [0.038]	-0.885** [0.416]	0.022 [0.222]	-0.427* [0.247]	-0.042*** [0.011]	-0.683* [0.398]	-0.194* [0.108]
E-INDEX	-0.024** [0.011]	-0.020*** [0.005]	-0.076*** [0.029]	-0.048** [0.022]	-0.005 [0.023]	-0.005*** [0.001]	-0.008* [0.004]	0.000 [0.017]
Other controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Industry × year FEs	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	9,689	9,689	9,689	9,689	9,689	9,689	9,689	6,854