Internet Appendix of Additional Tables for "Inside Debt and the Design of Corporate Debt Contracts"

This appendix provides supplemental analyses and robustness tests to the main results presented in "Inside Debt and the Design of Corporate Debt Contracts". We summarize the content of the tables as follows:

Table IA1: OLS analysis deleting control variables that are components of Altman Z Score

Table IA2: Robustness checks controlling for firms' access to public debt market

Table IA3: Instrumental variable analysis replacing tax rates with those from nearby states

Table IA4: Instrumental variable analysis controlling for the prevalence of wealthy individuals in a state

Table IA5: Instrumental variable analysis deleting firms headquartered in the states of NY&MA

Table IA6: Instrumental variable analysis controlling for the federal-level interest rates

Table IA7: Do ODC balances affect debt contracting? The effect of disclosure

Table IA8: Determinants of lump-sum withdrawal options in SERP plans

Table IA9: Does CEO relative leverage affect loan contract strictness?

Table IA10: OLS analysis using alternative measures of CEO relative incentive alignment

Table IA1: Why is Altman Z score insignificant in the baseline regression?

Panel A: Pearson and Spearman correlations between Altman Z score and its components

Pearson / Spearman	*ALTMANZ*	*ROA*	*LEV*
ALTMANZ		0.442***	-0.572***
ROA	0.521***		-0.357***
LEV	-0.575***	-0.390***	

This panel reports Pearson and Spearman correlations between Altman Z Score (*ALTMANZ*) and its individual components that are also used as control variables in the baseline regressions including return-on-assets ratio (*ROA*) and book leverage (*LEV*). Variable definitions are provided in Appendix A. Pearson (Spearman) correlations are reported above (below) the main diagonal. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two-tailed t-tests.

Panel B: Does Altman Z score affect all-in-drawn spread, excluding control variables that are components of Altman Z Score

	(1)	(2)	(3)
Dependent Variable		*SPREAD*	
RLEV	**-0.019*****	**-0.024*****	**-0.024*****
	(0.007)	(0.007)	(0.007)
ALTMANZ	**-0.038****	**-0.059*****	**-0.083*****
	(0.019)	(0.019)	(0.017)
ROA		**-1.790****	
		(0.794)	
LEV	**1.211*****		
	(0.281)		
Other control variables	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes
Number of observations	1,462	1,462	1,462
Adjusted R^2	0.398	0.388	0.382

This panel presents the ordinary least squares (OLS) regression results with all-in-drawn spread (*SPREAD*) as the dependent variable, excluding return-on-assets ratio (*ROA*) in Column (1), excluding book leverage (*LEV*) in Column (2), and excluding both *ROA* and *LEV* in Column (3). Variable definitions are provided in Appendix A of the manuscript. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. Coefficient estimates on control variables, year, and industry fixed effects are not reported for brevity. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.

Table IA2: Does CEO debt-like compensation affect debt contracting, controlling for firm's access to public debt market?

Panel A: Ordinary least squares (OLS) results

	(1)	(2)	(3)
	OLS	***OLS***	***Ordered-Probit***
Dependent Variable	*SPREAD*	*COVENANT*	*COVENANT*
RLEV	**-0.019*****	**-0.018****	**-0.029****
	(0.007)	(0.008)	(0.012)
PUBLICACCESS	**0.081**	**-0.034**	**-0.036**
	(0.070)	(0.067)	(0.076)
Year and industry fixed effects	Yes	Yes	Yes
Number of observations	1,462	1,267	1,267
Adjusted R^2	0.403	0.291	0.127 (Pseudo)

Panel B: Two-stage least squares (2SLS) results

	(1.1)	(1.2)	(2.1)	(2.2)
	First-stage	***Second-stage***	***First-stage***	***Second-stage***
Dependent Variable	*RLEV*	*SPREAD*	*RLEV*	*COVENANT*
TAXRATE_WAGE	**0.275****		**0.310****	
	(0.129)		(0.147)	
TAXRATE_GAIN	**-0.070**		**-0.061**	
	(0.120)		(0.129)	
TAXRATE_MORT	**-0.214*****		**-0.278*****	
	(0.057)		(0.073)	
FIT_ RLEV		**-0.155****		**-0.138****
		(0.064)		(0.061)
PUBLICACCESS	**-0.285**	**0.028**	**-0.250**	**-0.074**
	(0.189)	(0.058)	(0.217)	(0.071)
Control variables	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes
Number of observations	1,460	1,460	1,265	1,265
Adjusted R^2	0.140	0.238	0.150	0.153

Column (1) of Panel A presents the ordinary least squares (OLS) regression results with all-in-drawn spread (*SPREAD*) as the dependent variable. Columns (2)-(3) of Panel A present the OLS and ordered-probit regression results with number of restrictive covenants (*COVENANT*) as the dependent variable. Columns (1.1) and (1.2) of Panel B present the regression results of the 2SLS estimation with all-in-drawn spread (*SPREAD*) as the dependent variable in the second-stage. Columns (2.1) and (2.2) of Panel B present the regression results of the 2SLS estimation with number of restrictive covenants (*COVENANT*) as the dependent variable in the second-stage. All regressions control for *PUBLICACCESS* in addition to other control variables. *PUBLICACCESS* is a dummy variable indicating firms' access to public market, which equals one if a firm has issued at least one bond in the past three years and zero otherwise. Definitions of all other variables are provided in Appendix A of the manuscript. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. Coefficient estimates on control variables, year, and industry fixed effects are not reported for brevity. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.

Table IA3: Does CEO debt-like compensation affect debt contracting? Two-stage least squares (2SLS) estimation using state maximum individual tax rates as instrumental variables, replacing state tax rates with rates of nearby states when company headquarter is located within 25miles of state border

	(1.1)	(1.2)	(2.1)	(2.2)
	1st Stage	***2nd Stage***	***1st Stage***	***2nd Stage***
Dependent Variable	*RLEV*	*SPREAD*	*RLEV*	*COVENANT*
TAXRATE_WAGE_NEAR	**0.208***		**0.216***	
	(0.114)		(0.130)	
TAXRATE_GAIN_NEAR	**-0.086**		**-0.068**	
	(0.110)		(0.121)	
TAXRATE_MORT_NEAR	**-0.134*****		**-0.184*****	
	(0.0416)		(0.0565)	
FIT_ RLEV		**-0.157***		**-0.212****
		(0.0835)		(0.0931)
Control variables	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes
Number of observations	1,460	1,460	1,265	1,265
Adjusted R^2	0.129	0.233	0.139	0.105

Columns (1.1) and (1.2) present the regression results of the 2SLS estimation with all-in-drawn spread (*SPREAD*) as the dependent variable in the second-stage. Columns (2.1) and (2.2) present the regression results of the 2SLS estimation with number of restrictive covenants (*COVENANT*) as the dependent variable in the second-stage. *TAXRATE_WAGE_NEAR*, *TAXRATE_GAIN_NEAR* and *TAXRATE_MORT_NEAR* are the state maximum marginal tax rates for wages, capital gains, and mortgage subsidy of the state in which the CEO's firm is headquartered, as defined in Appendix A, with the exception that when the firm is located within 25 miles of a state border, the higher of the tax rates of the current state and the nearest bordering state is used. Firms located within 25 miles of a state border are identified using the state border data set used in Holmes (1998), and provided by Professor Thomas J. Holmes (see http://www.econ.umn.edu/~holmes/data/BorderData.html), which provides the minimum distance from each county in the United States to each border that its state shares with neighboring states. Counties in the state border dataset are identified by their Regional Economic Information System name and code; county names for the firms in our sample are obtained by looking up the zip code of the firm's headquarters (from Compustat) in the United States Census Bureau lookup service (http://quickfacts.census.gov/cgi-bin/qfd/lookup). Definitions of all other variables are provided in Appendix A of the manuscript. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. Coefficient estimates on control variables, year, and industry fixed effects are not reported for brevity. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.

Table IA4: Does CEO debt-like compensation affect debt contracting? Two-stage least squares (2SLS) estimation using state maximum individual tax rates as instrumental variables, controlling for the prevalence of wealthy individuals in a state

Panel A: First-stage regression results of the 2SLS estimation, controlling for the prevalence of wealthy individuals in a state

	(A1.1)	(A2.1)	(A3.1)	(B1.1)	(B2.1)	(B3.1)
		1st stage			***1st stage***	
Dependent Variable		*RLEV*			*RLEV*	
TAXRATE_WAGE	**0.288****	**0.287****	**0.287****	**0.322****	**0.320****	**0.319****
	(0.128)	(0.128)	(0.128)	(0.147)	(0.147)	(0.147)
TAXRATE_GAIN	**-0.073**	**-0.073**	**-0.073**	**-0.065**	**-0.064**	**-0.064**
	(0.119)	(0.119)	(0.119)	(0.129)	(0.129)	(0.129)
TAXRATE_MORT	**-0.218*****	**-0.218*****	**-0.218*****	**-0.279*****	**-0.279*****	**-0.278*****
	(0.058)	(0.058)	(0.058)	(0.073)	(0.073)	(0.073)
PCT_RICH	**6.595**			**12.116**		
	(9.966)			(12.834)		
PCT_CAPGAIN_RICH		**5.297**			**11.554**	
		(12.541)			(16.167)	
PCT_ALLINV_RICH			**5.282**			**11.294**
			(12.210)			(15.677)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	1,460	1,460	1,460	1,265	1,265	1,265
Adjusted R^2	0.139	0.139	0.139	0.150	0.150	0.150

Table IA4 (Cont'd)

Panel B: Second-stage regression results of the 2SLS estimation, controlling for the prevalence of wealthy individuals in a state

	(A1.2)	(A2.2)	(A3.2)	(B1.2)	(B2.2)	(B3.2)
		2nd stage			***2nd stage***	
Dependent Variable		*SPREAD*			*COVENANT*	
FIT_ RLEV	**-0.159****	**-0.158****	**-0.158****	**-0.134****	**-0.135****	**-0.136****
	(0.064)	(0.064)	(0.064)	(0.061)	(0.061)	(0.061)
PCT_RICH	**-0.067**			**4.789**		
	(2.898)			(3.935)		
PCT_CAPGAIN_RICH		**-0.494**			**5.273**	
		(3.622)			(4.932)	
PCT_ALLINV_RICH			**-0.500**			**5.257**
			(3.479)			(4.732)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	1,460	1,460	1,460	1,265	1,265	1,265
Adjusted R^2	0.228	0.229	0.229	0.164	0.160	0.158

This table presents the 2SLS results using state maximum individual tax rates as instrumental variables, controlling for various proxies for the prevalence of rich individuals in a state. *PCT_RICH* is the number of individual returns filed in a state-year with adjusted gross income (AGI) of $200,000 or more; *PCT_CAPGAIN_RICH* is the number of individual returns filed in a state-year with capital gains or losses reported on Schedule D and AGI of $200,000 or more; *PCT_ALLINV_RICH*, the highest of (the number of individual returns with capital gains or losses reported on Schedule D and AGI of $200,000 or more, the number of individual returns with dividends reported on Schedule B and AGI of $200,000 or more, the number of individual returns with taxable retirement distribution, pensions and annuities, or self-employment retirement plans reported and AGI of $200,000 or more) filed in a state-year. All proxies are scaled by the state-year's total number of individual returns. The left [right] panel of Panel A presents the first-stage regression results of the 2SLS estimation with all-in-drawn spread (*SPREAD*) [number of restrictive covenants (*COVENANT*)] as the dependent variable in the second-stage, controlling for these proxies for local rich individuals. The left [right] panel of Panel B presents the corresponding second-stage results. Definitions of all other variables are provided in Appendix A of the manuscript. Coefficient estimates on controls, year, and industry fixed effects are not reported for brevity. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.

Table IA5: Does CEO debt-like compensation affect debt contracting? Two-stage least squares (2SLS) estimation using state maximum individual tax rates as instrumental variables, deleting firms headquartered in NY or MA

	(1.1)	**(1.2)**	**(2.1)**	**(2.2)**
	1st Stage	***2nd Stage***	***1st Stage***	***2nd Stage***
Dependent Variable	*RLEV*	*SPREAD*	*RLEV*	*COVENANT*
TAXRATE_WAGE	**0.304****		**0.346****	
	(0.131)		(0.152)	
TAXRATE_GAIN	**-0.084**		**-0.081**	
	(0.119)		(0.129)	
TAXRATE_MORT	**-0.236*****		**-0.300*****	
	(0.065)		(0.081)	
FIT_ RLEV		**-0.114****		**-0.105***
		(0.057)		(0.055)
Control variables	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes
Number of observations	1,337	1,337	1,152	1,152
Adjusted R^2	0.143	0.342	0.154	0.239

Columns (1.1) and (1.2) present the regression results of the 2SLS estimation with all-in-drawn spread (*SPREAD*) as the dependent variable in the second-stage. Columns (2.1) and (2.2) present the regression results of the 2SLS estimation with number of restrictive covenants (*COVENANT*) as the dependent variable in the second-stage. Both regressions are estimated using the subsample of firms whose headquarters are not located in NY or MA. Variable definitions are provided in Appendix A of the manuscript. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. Coefficient estimates on control variables, year, and industry fixed effects are not reported for brevity. *** (**) (*) indicates significance at 1% (5%) (10%) based on two tailed t-tests.

Table IA6: Does CEO debt-like compensation affect debt contracting, controlling for federal-level interest rates?

Panel A: Pearson and Spearman correlations between state maximum individual tax rates and federal-level interest rates

Pearson / Spearman	*TAXRATE_ WAGE*	*TAXRATE_ GAIN*	*TAXRATE_ MORT*	*MEAN_ INTRATE*	*MEDIAN_ INTRATE*
TAXRATE_WAGE		0.938***	0.809***	0.018	0.014
TAXRATE_GAIN	0.935***		0.748***	0.022	0.019
TAXRATE_MORT	0.828***	0.760***		0.024	0.021
MEAN_INTRATE	0.033	0.027	0.043		0.998***
MEDIAN_INTRATE	0.022	0.015	0.031	0.987***	

This panel reports Pearson and Spearman correlations between state maximum individual tax rates (*TAXRATE_WAGE*, *TAXRATE_GAIN*, and *TAXRATE_MORT*) and federal-level interest rates (*MEAN_INTRATE*, *MEDIAN_INTRATE*). *MEAN_INTRATE* (*MEDIAN_INTRATE*) is the mean (median) daily federal fund rate published by Federal Reserve Bank of New York calculated over individual sample firms' fiscal years. Definitions of all other variables are provided in Appendix A of the manuscript. Pearson (Spearman) correlations are reported above (below) the main diagonal. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two-tailed t-tests.

Panel B: Two-stage least squares (2SLS) estimation using state maximum individual tax rates as IVs, controlling for federal-level interest rates

Panel B.1	(1.1)	(1.2)	(2.1)	(2.2)
	First-stage	***Second-stage***	***First-stage***	***Second-stage***
Dependent Variable	*RLEV*	*SPREAD*	*RLEV*	*COVENANT*
TAXRATE_WAGE	**0.283****		**0.279****	
	(0.129)		(0.128)	
TAXRATE_GAIN	**-0.070**		**-0.065**	
	(0.120)		(0.120)	
TAXRATE_MORT	**-0.218*****		**-0.217*****	
	(0.058)		(0.058)	
FIT_ RLEV		**-0.157****		**-0.156****
		(0.064)		(0.064)
MEAN_INTRATE	**-0.341**	**0.132**	**-0.616**	**0.238**
	(0.666)	(0.171)	(0.625)	(0.167)
Control variables	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes

Number of observations	1,460	1,460	1,460	1,460
Adjusted R^2	0.139	0.233	0.139	0.237
Panel B.2	(1.1)	(1.2)	(2.1)	(2.2)
	First-stage	***Second-stage***	***First-stage***	***Second-stage***
Dependent Variable	*RLEV*	*SPREAD*	*RLEV*	*COVENANT*
TAXRATE_WAGE	**0.316****		**0.312****	
	(0.149)		(0.148)	
TAXRATE_GAIN	**-0.064**		**-0.060**	
	(0.130)		(0.129)	
TAXRATE_MORT	**-0.281*****		**-0.280*****	
	(0.074)		(0.073)	
FIT_ RLEV		**-0.139****		**-0.140****
		(0.061)		(0.061)
MEDIAN_INTRATE	**-0.001**	**-0.209**	**-0.317**	**-0.292***
	(0.790)	(0.171)	(0.763)	(0.169)
Control variables	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes
Number of observations	1,265	1,265	1,265	1,265
Adjusted R^2	0.149	0.152	0.150	0.150

Panel B.1 presents the regression results of the 2SLS estimation, controlling for *MEAN_INTRATE*. Panel B.2 presents the regression results of the 2SLS estimation, controlling for *MEDIAN_INTRATE*. *MEAN_INTRATE* (*MEDIAN_INTRATE*) is the mean (median) daily federal fund rate published by Federal Reserve Bank of New York calculated over individual sample firms' fiscal years. Definitions of all other variables are provided in Appendix A of the manuscript. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. Coefficient estimates on control variables, year, and industry fixed effects are not reported for brevity. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.

Table IA7: Do ODC balances affect debt contracting? The effect of disclosure

	(1)	(2)	(3)	(4)
	Pooled	Transparent	Pooled	Transparent
	OLS		***Ordered-Probit***	
Dependent Variable	*SPREAD*		*COVENANT*	
RLEV_PEN	**-0.028*****	**-0.033****	**-0.040*****	**-0.031***
	(0.010)	(0.015)	(0.015)	(0.016)
RLEV_ODC	**-0.009**	**-0.025**	**-0.026**	**-0.030**
	(0.010)	(0.017)	(0.022)	(0.022)
RLEV_ODC×NOINVDISC	**0.022**		**-0.029**	
	(0.026)		(0.077)	
RLEV_ODC×NOWITHDISC	**-0.114**		**0.034**	
	(0.092)		(0.127)	
NOINVDISC	**-0.000**		**0.023**	
	(0.012)		(0.037)	
NOWITHDISC	**-0.101**		**0.078**	
	(0.069)		(0.079)	
Control variables	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes
Number of observations	1,462	931	1,267	806
Adjusted R^2	0.405	0.423	0.128(Pseudo)	0.144(Pseudo)

Columns (1)-(2) present the ordinary least squares (OLS) regression results with all-in-drawn spread (*SPREAD*) as the dependent variable. Columns (3)-(4) present the ordered-probit regression results with number of restrictive covenants (*COVENANT*) as the dependent variable. Columns (1) and (3) are estimated using the pooled sample of ODC-transparent and ODC-opaque firms. Columns (2) and (4) are estimated using the subsample of ODC-transparent firms (i.e., *NOINVDISC*=0 and *NOWITHDISC*=0). *NOINVDISC* is a dummy variable that equals one if there is no detailed disclosure of the dollar value of ODC equity investments, and equals zero if the detailed disclosure is available or the firm does not have an ODC plan. *NOWITHDISC* is a dummy variable that equals one if there is no disclosure of *ODC* withdrawal terms, and equals zero if some withdrawal-related disclosure is available or the firm does not have an ODC plan. Definitions of all other variables are provided in Appendix A of the manuscript. Coefficient estimates on control variables, year, and industry fixed effects are not reported for brevity. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.

Table IA8: The determinants of lump-sum withdrawal options in SERP plans

	(1)	(2)
Dependent variable	*LUMP*	
ln(*MVE*)	**0.148**	**0.052**
	(-0.106)	(-0.120)
KZINDEX	**0.071****	**0.075****
	(-0.028)	(-0.030)
CEOAGE	**0.007**	**0.011**
	(-0.020)	(-0.023)
ln(*FULLTENURE*)	**-0.013**	**-0.003**
	(-0.149)	(-0.155)
BM	**-1.792*****	**-1.811*****
	(-0.668)	(-0.672)
LEV	**-1.645**	**-2.045***
	(-1.065)	(-1.108)
CEOCHAIR		**0.021**
		(-0.328)
INDCHAIR		**0.064**
		(-0.439)
BDSIZE		**0.097**
		(-0.072)
BDMTGS		**-0.044**
		(-0.040)
%INDDIR		**-3.499**
		(-2.507)
%EXPDIR		**-1.707***
		(-0.971)
Intercept	**-0.935**	**-0.128**
	(-1.601)	(-1.840)
Year and industry fixed effects	Yes	Yes
Number of observations	467	458
Pseudo R^2	0.068	0.092

This table presents logistic regression results of the determinants of the existence of lump-sum withdrawal options for SERPs. The model is estimated on the entire sample of unique firm-years with non-zero SERPs and with sufficient data available for model variables. *KZINDEX* is the Kaplan and Zingales five-variable index. *CEOAGE* is the age of the CEO. ln(*FULLTENURE*) is the natural logarithm of one plus the CEO's full tenure with the firm, with tenure collected from Boardex and calculated from the year she started her first position at the firm. *CEOCHAIR* is an indicator variable set to one if the CEO is also the chairman of the board, and zero otherwise. *INDCHAIR* is an indicator variable set to one if an independent director is chairman of the board, and zero otherwise. *BDSIZE* is the number of directors on the board. *BDMTGS* is the number of board meetings held in the year. *%INDDIR* is the proportion of

independent directors (i.e. neither executive of the firm nor affiliated to the firm in any other way) on the board. *%EXPDIR* is the proportion of directors who have served on this board for at least 15 years or more. All board variables are collected from Corporate Library database. Definitions of all other variables are provided in Appendix A of the manuscript. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.

Table IA9: Does CEO relative leverage affect loan contract strictness?

This table reports regression results on the relation between CEO relative leverage and the loan contract strictness. *COVENANT_STRICT* is a measure of loan contract strictness, calculated for five major covenants (Min. EBITDA to Debt, Min. Interest Coverage, Max. Capex, Min. Net Worth, and Min. Current Ratio) following Murfin (2009). Definitions of all other variables are provided in Appendix A of the manuscript. Industry fixed effects are based on Fama-French 12 industry-dummy. Coefficient estimates on control variables, year, and industry fixed effects are not reported for brevity. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.

Dependent Variable	*COVENANT_STRICT*
RLEV	**-0.005***
	(0.003)
Control variables	Included
Year and Industry fixed effects	Included
Number of observations	1,061
Adjusted R^2	0.218

Table IA10: CEO debt-like compensation and debt contracting: using alternative measures of CEO relative incentive alignment

Panel A: Ordinary least squares (OLS) results using *SPREAD* as the dependent variable

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable			*SPREAD*			
INSIDE_LEV	**-0.105****					
	(0.053)					
DEBT%		**-6.765*****				
		(1.406)				
RLEV_Adj			**-0.044*****			
			(0.012)			
DEBT%_Adj				**-8.149*****		
				(1.680)		
ln*(RLEV)*					**-0.250*****	
					(0.044)	
RLEV_marginal						**-5.462****
						(2.767)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	1,462	1,462	1,462	1,462	1,462	1,436
Adjusted R^2	0.371	0.407	0.405	0.408	0.414	0.410

This panel presents the ordinary least squares (OLS) regression results with all-in-drawn spread (*SPREAD*) as the dependent variable, when the CEO relative incentive alignment is measured using *INSIDE_LEV*, *DEBT%*, *RLEV_Adj*, *DEBT%_Adj*, ln(*RLEV*), and *RLEV_marginal*, respectively. *INSIDE_LEV* is CEO's inside leverage, calculated as the sum of actuarial present value of pension and other deferred compensation (ODC) divided by the sum of stock value, restricted stock value, and value of stock option holdings. *DEBT%* is the ratio of CEO's inside debt to firm debt. Inside debt is the actuarial present value of CEO's pension and ODC. Firm debt is defined as the sum of firm's long-term debt and debt in current liabilities. *RLEV_Adj* is the adjusted relative leverage, calculated as the ratio of CEO's inside leverage to adjusted firm leverage. Adjusted firm leverage is calculated as the sum of firm's long-term debt, firm's debt in current liabilities, and top five executives' inside debt, divided by market value of equity. *DEBT%_adj* is the ratio of CEO's inside debt to adjusted firm debt. Adjusted firm debt is defined as the sum of firm's long-term debt, firm's debt in current liabilities, and top five executives' inside debt. ln*(RLEV)* is the natural logarithm of one plus relative leverage *RLEV*. *RLEV_marginal* is the relative incentive ratio, calculated as the ratio of CEO's inside debt to the sum of firm's long-term debt and debt in current liabilities, multiplied by the ratio of the firm's total delta to the CEO's total delta. Definitions of all other variables are provided in Appendix A of the manuscript. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. Coefficient estimates on control variables, year, and industry fixed effects are not reported for brevity. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.

Table IA10 (cont'd)

Panel B: Ordered-probit results using *COVENANT* as the dependent variable

	(1)	(2)	(3)	(4)	(5)	(6)
Dependent Variable			*COVENANT*			
INSIDE_LEV	**-0.120***					
	(0.067)					
DEBT%		**-3.294***				
		(1.995)				
RLEV_Adj			**-0.043*****			
			(0.016)			
DEBT%_Adj				**-4.247***		
				(2.420)		
ln*(RLEV)*					**-0.144****	
					(0.059)	
RLEV_marginal						**-5.093***
						(2.895)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes
Year and industry fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Number of observations	1,267	1,267	1,267	1,267	1,267	1,242
Pseudo R^2	0.116	0.125	0.117	0.116	0.126	0.128

This panel presents the ordered-probit regression results with number of restrictive covenants (*COVENANT*) as the dependent variable, when the CEO relative incentive alignment is measured using *INSIDE_LEV*, *DEBT%*, *RLEV_Adj*, *DEBT%_Adj*, ln(*RLEV*), and *RLEV_marginal*, respectively. *INSIDE_LEV* is CEO's inside leverage, calculated as the sum of actuarial present value of pension and other deferred compensation (ODC) divided by the sum of stock value, restricted stock value, and value of stock option holdings. *DEBT%* is the ratio of CEO's inside debt to firm debt. Inside debt is the actuarial present value of CEO's pension and ODC. Firm debt is defined as the sum of firm's long-term debt and debt in current liabilities. *RLEV_Adj* is the adjusted relative leverage, calculated as the ratio of CEO's inside leverage to adjusted firm leverage. Adjusted firm leverage is calculated as the sum of firm's long-term debt, firm's debt in current liabilities, and top five executives' inside debt, divided by market value of equity. *DEBT%_adj* is the ratio of CEO's inside debt to adjusted firm debt. Adjusted firm debt is defined as the sum of firm's long-term debt, firm's debt in current liabilities, and top five executives' inside debt. ln*(RLEV)* is the natural logarithm of one plus relative leverage *RLEV*. *RLEV_marginal* is the relative incentive ratio, calculated as the ratio of CEO's inside debt to the sum of firm's long-term debt and debt in current liabilities, multiplied by the ratio of the firm's total delta to the CEO's total delta. Definitions of all other variables are provided in Appendix A of the manuscript. Robust standard errors, adjusted for heteroskedasticity and clustered by firm, are reported in parentheses. Coefficient estimates on control variables, year, and industry fixed effects are not reported for brevity. *** (**) (*) indicates significance level at 1% (5%) (10%) based on two tailed t-tests.