

控股股东股权质押与企业违规行为

——基于内部控制与外部监督视角

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附录

附录 1：2013—2021 年 A 股上市公司不同类型违规次数

根据 CSMAR 数据库，并参照中国证监会的公司违规分类，中国上市公司违规行为主要包括十六种类型（含“其他”类别）。其中，信息披露类违规包括：虚构利润（P2501）、虚列资产（P2502）、虚假记载（误导性陈述）（P2503）、推迟披露（P2504）、重大遗漏（P2505）、披露不实（其它）（P2506）以及一般会计处理不当（P2515）；而经营类违规则包括：欺诈上市（P2507）、出资违规（P2508）、擅自改变资金用途（P2509）、占用公司资产（P2510）、内幕交易（P2511）、违规买卖股票（P2512）、操纵股价（P2513）和违规担保（P2514）。

附表 1 列示了各年度上市公司不同类型的违规次数。从数量上看，2013—2021 年上市公司各类型违规次数整体上不断增加。分类型看，信息披露违规的次数均远大于违规披露。其中，公司的违规主要集中于虚假记载、推迟披露、重大遗漏这三大类等，这些均属于信息披露违规；延迟披露是九年来上市公司违规数量最多的类型，在 2021 年达到了 520 起；内幕交易等较为隐蔽的违规行为数据库中则较少进行披露。

附表 1 上市公司违规类型分类

违规类型	2013	2014	2015	2016	2017	2018	2019	2020	2021
虚构利润	8	13	18	24	39	30	33	45	76
虚列资产	1	2	0	2	5	3	6	10	9
虚假记载	124	66	71	99	174	265	334	329	410
推迟披露	155	145	123	286	320	398	479	488	520
重大遗漏	146	145	122	159	179	197	228	469	470
披露不实(其它)	43	58	122	66	24	21	17	39	9
一般会计处理不当	92	45	45	44	47	46	66	91	97
欺诈上市	2	1	0	0	0	0	0	0	1
出资违规	0	0	0	0	0	0	0	0	0
擅自改变资金用途	10	1	10	14	16	11	26	16	20
占用公司资产	11	17	10	25	30	32	97	114	165
内幕交易	1	0	0	0	0	1	0	0	0
违规买卖股票	7	3	4	7	1	8	16	10	9
操纵股价	0	1	0	1	0	0	0	0	0
违规担保	19	13	7	7	15	23	89	90	92
其他	277	193	199	318	335	380	454	604	740

注：数据来源于 CSMAR 数据库，经作者整理所得。

附表 2 汇报了 2013—2021 年中国 A 股上市公司控股股东存在股权质押与公司违规的年度统计结果。其中，按控股股东是否存在股权质押将样本划分为质押与未质押组。首先，样本期内各上市公司控股股东采取股权质押的数量日益增加，从 2013 年仅 283 起攀升到 2021

年 1546 起,说明股权质押作为一种全新的融资手段近年来备受青睐。其次,随着时间推移和上市公司数量不断增加,出现违规行为的公司数也呈现不断上升趋势,如质押组违规数量从 2013 年 41 家跃升至 2021 年 264 家,增幅超过 600%,反映出 A 股上市公司总体违规行为较普遍。最后,从各年份质押与非质押组样本的平均违规比例看,两者每年均分别存在 10%左右的上市公司受到证监会的违规处罚,且质押组上市公司的违规比例大体高于未质押组,既说明上市公司违规情况不容乐观,又从侧面反映了存在控股股东股权质押的公司似乎也更容易产生违规行为。然而,考虑到处于质押组的上市公司控股股东之所以采取股权质押,极有可能是所属公司自身在盈余管理等方面存在不足。因此,以上初步发现的净效应及影响机制还有待证实。

附表 2 上市公司控股股东股权质押与上市公司违规分年度统计

年份	质押样本			未质押样本		
	质押	其中: 违规	违规比例	未质押	其中: 违规	违规比例
2013	283	41	14.49%	1837	241	13.12%
2014	484	53	10.95%	1642	161	9.81%
2015	684	77	11.26%	1571	136	8.66%
2016	935	136	14.55%	1530	189	12.35%
2017	1226	172	14.03%	1514	170	11.23%
2018	1444	226	15.65%	1663	177	10.64%
2019	1569	274	17.46%	1631	128	7.85%
2020	1538	247	16.06%	1800	156	8.67%
2021	1546	265	17.17%	1990	231	11.61%
合计	8961	1363	14.62%	15926	1676	10.44%

注: 股权质押数据来源于 Wind 资讯, 企业违规数据来源于 CSMAR 数据库, 经作者整理所得。

附录 2: 控股股东股权质押对企业不同类型违规行为的影响效应完整估计结果

附表 3 控股股东股权质押对企业不同类型违规行为的影响效应

	(1)	(2)	(3)	(4)	(5)	(6)
	Total dum	Infor dum	Oper dum	Total dum	Infor dum	Oper dum
<i>Pled_dum</i>	0.1390*** (0.025)	0.1517*** (0.025)	0.0972** (0.047)			
<i>Pled_ratio</i>				0.2946*** (0.037)	0.3170*** (0.037)	0.1718** (0.068)
<i>Lev</i>	0.6722*** (0.068)	0.6694*** (0.068)	0.4799*** (0.122)	0.6497*** (0.068)	0.6453*** (0.068)	0.4684*** (0.122)
<i>Roa</i>	-2.1872*** (0.158)	-2.1987*** (0.159)	-1.6388*** (0.217)	-2.1067*** (0.159)	-2.1129*** (0.160)	-1.5917*** (0.218)
<i>MB_ratio</i>	0.0072 (0.020)	0.0048 (0.020)	0.0026 (0.027)	0.0045 (0.020)	0.0019 (0.021)	0.0011 (0.028)
<i>SOE</i>	-0.2635*** (0.030)	-0.2540*** (0.031)	-0.2625*** (0.060)	-0.2338*** (0.031)	-0.2227*** (0.031)	-0.2509*** (0.060)
<i>Dual</i>	0.0083 (0.026)	0.0074 (0.026)	-0.0194 (0.048)	0.0119 (0.026)	0.0114 (0.026)	-0.0169 (0.048)
<i>Capint</i>	0.0201*** (0.005)	0.0185*** (0.005)	0.0170** (0.007)	0.0190*** (0.005)	0.0173*** (0.005)	0.0163** (0.007)
<i>TobinQ</i>	-0.0018 (0.009)	-0.0004 (0.009)	-0.0310* (0.017)	0.0015 (0.009)	0.0032 (0.009)	-0.0290* (0.017)
<i>Board</i>	-0.0993 (0.070)	-0.0904 (0.071)	-0.1788 (0.133)	-0.0974 (0.070)	-0.0888 (0.071)	-0.1751 (0.133)
<i>InD_ratio</i>	-0.2405 (0.240)	-0.1937 (0.242)	-0.3151 (0.477)	-0.2437 (0.241)	-0.1972 (0.243)	-0.3122 (0.477)
<i>Age</i>	0.1856*** (0.019)	0.1870*** (0.019)	0.1788*** (0.037)	0.1719*** (0.019)	0.1722*** (0.019)	0.1706*** (0.037)

<i>Size</i>	-0.1099*** (0.012)	-0.1135*** (0.012)	-0.0695*** (0.021)	-0.1048*** (0.012)	-0.1080*** (0.012)	-0.0658*** (0.021)
<i>_cons</i>	0.8174*** (0.295)	0.8370*** (0.299)	-0.6185 (0.560)	0.7200** (0.296)	0.7318** (0.300)	-0.6915 (0.557)
<i>N</i>	24648	24648	24648	24648	24648	24648
LR Chi2	857.56	856.85	205.26	900.38	904.20	211.34
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

注：括号内为稳健标准误；*、**和***分别代表通过 10%、5%和 1%的显著性水平检验。下同。

附录 3：控股股东股权质押对企业不同类型违规行为的动态影响效应完整估计结果

1. 考虑无法观测异质性的动态面板 Probit 模型

为排除上市公司历史违规行为对实证研究结果的影响，本文引入被解释变量的一阶滞后项，并进一步将无法观测的异质性特征纳入考量，建立如下动态面板 Probit 模型，以缓解潜在序列相关引起的内生性问题。

$$Y_{it}^* = \alpha_0 + \rho Y_{it-1} + \alpha_1 Pled_{it} + \sum_{j=1}^m \alpha_j X_{ijt} + \sum_{j=1}^n \gamma_j Z_{ijt} + c_i + u_{it} \quad (1)$$

$$c_i = \beta_0 + \beta_1 Y_{i0} + \sum_{j=1}^n \beta_j Z_{ij0} + \sum_{j=1}^n \theta_j \bar{Z}_{ij} + a_i \quad (2)$$

其中， ρ 衡量被解释变量的动态效应； c_i 为个体无法观测的异质性效应，分别包括常数项(β_0)、因变量样本初期的初始情况(Y_{i0})、个体和时间层面控制变量的初始情况(Z_{ij0})及其在样本期内的个体内部平均值($\bar{Z}_{ij} = 1/T \sum_{t=1}^T Z_{ijt}$)、个体特定非时变误差项(a_i)； u_{it} 为特定误差项；其他变量含义同正文。

2. 控股股东股权质押对企业不同类型违规行为的动态影响效应

附表 4 控股股东股权质押对企业不同类型违规行为的动态影响效应

	(1) Total dum	(2) Infor dum	(3) Oper dum	(4) Total dum	(5) Infor dum	(6) Oper dum
<i>L.Total_dum</i>	0.5249*** (0.041)			0.5285*** (0.041)		
<i>L.Infor_dum</i>		0.5308*** (0.042)			0.5338*** (0.042)	
<i>L.Oper_dum</i>			0.8337*** (0.114)			0.8473*** (0.114)
<i>Pled_dum</i>	0.1402*** (0.028)	0.1582*** (0.028)	0.1003* (0.053)			
<i>Pled_ratio</i>				0.2990*** (0.042)	0.3282*** (0.042)	0.2247*** (0.074)
<i>Lev</i>	0.7052*** (0.082)	0.6968*** (0.083)	0.5489*** (0.146)	0.6758*** (0.082)	0.6655*** (0.082)	0.5238*** (0.147)
<i>Roa</i>	-1.7376*** (0.175)	-1.7618*** (0.176)	-1.2097*** (0.218)	-1.6551*** (0.176)	-1.6721*** (0.176)	-1.1271*** (0.217)
<i>MB_ratio</i>	0.0168 (0.018)	0.0132 (0.018)	0.0045 (0.035)	0.0139 (0.018)	0.0100 (0.018)	0.0032 (0.035)
<i>Capint</i>	0.0202*** (0.006)	0.0186*** (0.006)	0.0209** (0.008)	0.0190*** (0.006)	0.0172*** (0.006)	0.0197** (0.008)
<i>TobinQ</i>	-0.0016 (0.009)	0.0005 (0.009)	-0.0426** (0.020)	0.0030 (0.009)	0.0054 (0.009)	-0.0379* (0.020)
<i>SOE</i>	-0.2281*** (0.036)	-0.2209*** (0.036)	-0.2020*** (0.068)	-0.1954*** (0.036)	-0.1864*** (0.036)	-0.1746*** (0.068)
<i>Dual</i>	-0.0107 (0.030)	-0.0108 (0.030)	-0.0499 (0.056)	-0.0072 (0.029)	-0.0069 (0.030)	-0.0470 (0.056)
<i>Board</i>	-0.0363	-0.0284	-0.0781	-0.0314	-0.0238	-0.0645

	(0.085)	(0.086)	(0.164)	(0.084)	(0.085)	(0.162)
<i>InD_ratio</i>	-0.1016	-0.0303	-0.2284	-0.1080	-0.0379	-0.2197
	(0.285)	(0.286)	(0.571)	(0.284)	(0.286)	(0.567)
<i>Age</i>	0.4810***	0.4692***	0.9604***	0.4990***	0.4888***	0.9851***
	(0.065)	(0.065)	(0.148)	(0.065)	(0.066)	(0.151)
<i>Size</i>	-0.0994***	-0.1022***	-0.1974***	-0.0965***	-0.0986***	-0.1951***
	(0.037)	(0.037)	(0.070)	(0.037)	(0.037)	(0.070)
<i>Total_dum_0</i>	0.1350***			0.1331***		
	(0.042)			(0.041)		
<i>Infor_dum_0</i>		0.1282***			0.1273***	
		(0.042)			(0.042)	
<i>Oper_dum_0</i>			0.0968			0.0958
			(0.176)			(0.175)
<i>Age_0</i>	-0.3085***	-0.3346***	-0.0037	-0.2956***	-0.3215***	0.0132
	(0.091)	(0.092)	(0.168)	(0.090)	(0.091)	(0.166)
<i>Size_0</i>	-0.0360	-0.0240	-0.1224**	-0.0312	-0.0193	-0.1173**
	(0.030)	(0.030)	(0.051)	(0.029)	(0.030)	(0.050)
<i>m_Age</i>	0.0928	0.1430	-0.7973***	0.0411	0.0879	-0.8548***
	(0.136)	(0.138)	(0.279)	(0.136)	(0.138)	(0.282)
<i>m_Size</i>	0.0115	0.0016	0.2196**	0.0118	0.0020	0.2190**
	(0.049)	(0.050)	(0.090)	(0.049)	(0.050)	(0.090)
<i>_cons</i>	0.3928	0.3059	-0.4481	0.2520	0.1519	-0.5907
	(0.389)	(0.394)	(0.755)	(0.387)	(0.391)	(0.748)
<i>N</i>	21262	21262	21262	21262	21262	21262
Wald Chi2	976.288	981.631	290.984	1,031.434	1,039.701	298.973
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附录 4：控股股东首次股权质押对企业违规行为的影响效应完整估计结果

1. 控股股东“首次股权质押”准自然实验避免反向因果问题

由于上市公司控股股东“首次股权质押”事件理论上只会影响企业未来短期内的违规行为为决策，且企业违规行为不太可能反过来影响控股股东是否进行首次股权质押，故这是一个相对外生的准自然实验，其识别策略如下：

$$P(Y_{it} = 1 | Pled_First_{it}, \mathbf{X}, \mathbf{Z}) = \Phi \left(\alpha_0 + \alpha_1 Pled_First_{it} + \sum_{j=1}^m \alpha_j X_{ijt} + \sum_{j=1}^n \gamma_j Z_{ijt} \right) \quad (3)$$

其中，*Pled_First*为企业“首次股权质押”事件虚拟变量，即若企业*i*在样本期内第*t*年首次出现控股股东股权质押行为则取值为1，否则为0；其他变量含义同正文。

2. 控股股东首次股权质押对企业违规行为的影响效应

附表 5 控股股东首次股权质押对企业违规行为的影响效应

	(1)	(2)	(3)
	Total dum	Infor dum	Oper dum
<i>Pled_First</i>	0.1901***	0.1899***	0.0972**
	(0.031)	(0.031)	(0.047)
<i>Lev</i>	0.7631***	0.7618***	0.4799***
	(0.087)	(0.088)	(0.122)
<i>Roa</i>	-1.8959***	-1.9177***	-1.6388***
	(0.181)	(0.181)	(0.217)
<i>MB_ratio</i>	0.0047	0.0020	0.0026
	(0.018)	(0.018)	(0.027)
<i>SOE</i>	-0.2512***	-0.2475***	-0.2625***
	(0.041)	(0.041)	(0.060)
<i>Dual</i>	0.0065	0.0059	-0.0194
	(0.031)	(0.031)	(0.048)
<i>TobinQ</i>	-0.0074	-0.0061	-0.0310*
	(0.010)	(0.010)	(0.017)
<i>Capint</i>	0.0249***	0.0234***	0.0170**

	(0.006)	(0.006)	(0.007)
<i>Board</i>	-0.1058	-0.0926	-0.1788
	(0.089)	(0.090)	(0.133)
<i>InD_ratio</i>	-0.2793	-0.2191	-0.3151
	(0.292)	(0.294)	(0.477)
<i>Age</i>	0.2067***	0.2090***	0.1788***
	(0.024)	(0.024)	(0.037)
<i>Size</i>	-0.1259***	-0.1307***	-0.0695***
	(0.015)	(0.015)	(0.021)
<i>_cons</i>	0.9541**	0.9862**	-0.6185
	(0.380)	(0.385)	(0.560)
<i>N</i>	24648	24648	24648
Wald Chi2	642.66	640.40	205.26
Prob > Chi2	0.000	0.000	0.000

附录 5：引入更多控制变量的完整估计结果

附表 6 引入更多控制变量的完整回归结果

	(1)	(2)	(3)	(4)	(5)	(6)
	Total_dum	Infor_dum	Oper_dum	Total_dum	Infor_dum	Oper_dum
<i>Pled_dum</i>	0.1172***	0.1328***	0.1258**			
	(0.031)	(0.031)	(0.061)			
<i>Pled_ratio</i>				0.2939***	0.3230***	0.2322***
				(0.047)	(0.048)	(0.085)
<i>Lev</i>	0.6856***	0.6861***	0.4237**	0.6605***	0.6591***	0.4040**
	(0.093)	(0.094)	(0.173)	(0.093)	(0.094)	(0.173)
<i>Roa</i>	-1.9120***	-1.9343***	-1.3330***	-1.8255***	-1.8404***	-1.2671***
	(0.196)	(0.197)	(0.277)	(0.197)	(0.197)	(0.276)
<i>MB_ratio</i>	-0.0059	-0.0103	0.0210	-0.0078	-0.0124	0.0202
	(0.020)	(0.021)	(0.032)	(0.020)	(0.021)	(0.032)
<i>SOE</i>	-0.2394***	-0.2319***	-0.2546***	-0.1926***	-0.1817***	-0.2275**
	(0.052)	(0.053)	(0.094)	(0.053)	(0.054)	(0.095)
<i>Dual</i>	0.0125	0.0102	-0.0287	0.0140	0.0119	-0.0277
	(0.033)	(0.033)	(0.065)	(0.033)	(0.033)	(0.064)
<i>TobinQ</i>	-0.0060	-0.0037	-0.0404*	-0.0017	0.0011	-0.0365
	(0.011)	(0.011)	(0.024)	(0.011)	(0.011)	(0.024)
<i>Capint</i>	0.0211***	0.0200***	0.0214**	0.0200***	0.0188***	0.0203**
	(0.007)	(0.007)	(0.010)	(0.007)	(0.007)	(0.010)
<i>Board</i>	-0.1595*	-0.1372	-0.3581*	-0.1505	-0.1281	-0.3454*
	(0.095)	(0.097)	(0.191)	(0.095)	(0.096)	(0.189)
<i>InD_ratio</i>	-0.5226*	-0.4318	-0.7934	-0.5274*	-0.4375	-0.7744
	(0.308)	(0.311)	(0.642)	(0.307)	(0.310)	(0.640)
<i>Age</i>	0.1425***	0.1430***	0.0881	0.1278**	0.1269***	0.0766
	(0.028)	(0.029)	(0.055)	(0.028)	(0.028)	(0.055)
<i>Size</i>	-0.0869***	-0.0924***	-0.0572*	-0.0825***	-0.0874***	-0.0510*
	(0.017)	(0.018)	(0.031)	(0.017)	(0.017)	(0.031)
控股股东性质	0.0931*	0.0810	0.2264**	0.0962*	0.0848	0.2259**
	(0.056)	(0.057)	(0.102)	(0.056)	(0.056)	(0.102)
是否存在一控多情况	-0.0627	-0.0523	-0.0351	-0.0662	-0.0565	-0.0409
	(0.044)	(0.045)	(0.072)	(0.044)	(0.045)	(0.071)
实际控制人拥有上市公司所有权比例	0.0319	0.0306	0.0440	0.0367	0.0358	0.0473
	(0.079)	(0.079)	(0.054)	(0.079)	(0.079)	(0.054)
实际控制人拥有上市公司控制权比例	-0.0340	-0.0326	-0.0483	-0.0386	-0.0376	-0.0514
	(0.080)	(0.079)	(0.054)	(0.079)	(0.079)	(0.054)
实际控制人两权分离率	0.0315	0.0300	0.0494	0.0363	0.0352	0.0527
	(0.080)	(0.079)	(0.054)	(0.079)	(0.079)	(0.054)
管理层持股比例	-0.0051***	-0.0050***	-0.0080***	-0.0049***	-0.0048***	-0.0079***
	(0.001)	(0.001)	(0.003)	(0.001)	(0.001)	(0.003)
机构投资者持股比例	-0.0034***	-0.0034***	-0.0031	-0.0035***	-0.0036***	-0.0032
	(0.001)	(0.001)	(0.002)	(0.001)	(0.001)	(0.002)
董监高是否具有金融背景	0.0504*	0.0579**	-0.0866*	0.0367	0.0432	-0.0972*
	(0.029)	(0.029)	(0.052)	(0.029)	(0.029)	(0.051)

_cons	0.7798*	0.7817*	-0.0079	0.6782	0.6684	-0.1463
	(0.427)	(0.433)	(0.805)	(0.426)	(0.431)	(0.799)
N	22008	22008	22008	22008	22008	22008
Wald Chi2	552.076	551.108	134.554	594.161	596.242	140.499
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附录 6: 面板固定效应的完整估计结果

附表 7 面板固定效应回归模型完整估计结果

	(1)	(2)	(3)	(4)	(5)	(6)
	Total_dum	Infor_dum	Oper_dum	Total_dum	Infor_dum	Oper_dum
<i>Pled_dum</i>	0.0178*** (0.005)	0.0196*** (0.005)	0.0039** (0.002)			
<i>Pled_ratio</i>				0.0600*** (0.008)	0.0635*** (0.008)	0.0127*** (0.003)
<i>Lev</i>	0.1412*** (0.014)	0.1367*** (0.014)	0.0224*** (0.006)	0.1338*** (0.014)	0.1291*** (0.014)	0.0208*** (0.006)
<i>Roa</i>	-0.5042*** (0.035)	-0.5022*** (0.035)	-0.0942*** (0.014)	-0.4829*** (0.035)	-0.4799*** (0.035)	-0.0897*** (0.015)
<i>MB_ratio</i>	0.0006 (0.004)	-0.0003 (0.004)	0.0013 (0.002)	0.0005 (0.004)	-0.0005 (0.004)	0.0013 (0.002)
<i>SOE</i>	-0.0416*** (0.007)	-0.0396*** (0.007)	-0.0095*** (0.003)	-0.0311*** (0.007)	-0.0288*** (0.007)	-0.0074** (0.003)
<i>Dual</i>	0.0011 (0.005)	0.0008 (0.005)	-0.0020 (0.002)	0.0014 (0.005)	0.0011 (0.005)	-0.0019 (0.002)
<i>TobinQ</i>	0.0030* (0.002)	0.0035** (0.002)	-0.0001 (0.001)	0.0036** (0.002)	0.0040** (0.002)	0.0001 (0.001)
<i>Capint</i>	0.0073*** (0.001)	0.0069*** (0.001)	0.0014*** (0.000)	0.0070*** (0.001)	0.0066*** (0.001)	0.0014*** (0.000)
<i>Board</i>	-0.0218 (0.013)	-0.0180 (0.013)	-0.0109** (0.006)	-0.0204 (0.013)	-0.0165 (0.013)	-0.0106* (0.006)
<i>InD_ratio</i>	-0.0736* (0.045)	-0.0585 (0.044)	-0.0217 (0.018)	-0.0740* (0.045)	-0.0589 (0.044)	-0.0218 (0.018)
<i>Age</i>	0.0208*** (0.004)	0.0207*** (0.004)	0.0012 (0.002)	0.0181*** (0.004)	0.0179*** (0.004)	0.0007 (0.002)
<i>Size</i>	-0.0119*** (0.003)	-0.0119*** (0.003)	-0.0017 (0.001)	-0.0113*** (0.003)	-0.0112*** (0.002)	-0.0016 (0.001)
控股股东性质	0.0142* (0.008)	0.0131* (0.008)	0.0068** (0.003)	0.0148* (0.008)	0.0136* (0.008)	0.0069** (0.003)
一控多情况	-0.0059 (0.006)	-0.0047 (0.006)	0.0002 (0.003)	-0.0064 (0.006)	-0.0054 (0.006)	0.0001 (0.003)
控制人所有权比例	0.0064 (0.028)	0.0062 (0.027)	-0.0004 (0.011)	0.0068 (0.028)	0.0066 (0.027)	-0.0003 (0.011)
控制人控制权比例	-0.0065 (0.028)	-0.0064 (0.027)	0.0003 (0.011)	-0.0069 (0.028)	-0.0068 (0.027)	0.0002 (0.011)
两权分离率	0.0058 (0.028)	0.0057 (0.027)	-0.0003 (0.011)	0.0062 (0.028)	0.0061 (0.027)	-0.0002 (0.011)
管理层持股比例	-0.0007** (0.000)	-0.0007*** (0.000)	-0.0002** (0.000)	-0.0007** (0.000)	-0.0006*** (0.000)	-0.0002** (0.000)
机构投资者持股比例	-0.0004*** (0.000)	-0.0004*** (0.000)	-0.0001 (0.000)	-0.0004*** (0.000)	-0.0004*** (0.000)	-0.0001 (0.000)
董监高金融背景	0.0124*** (0.005)	0.0125*** (0.005)	0.0016 (0.002)	0.0117** (0.005)	0.0117** (0.005)	0.0014 (0.002)
_cons	0.4300*** (0.067)	0.4180*** (0.066)	0.0763*** (0.027)	0.4142*** (0.067)	0.4009*** (0.066)	0.0729*** (0.027)
Fixed Ind	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Year	Yes	Yes	Yes	Yes	Yes	Yes
N	22008	22008	22008	22008	22008	22008
Within R ²	0.051	0.051	0.016	0.053	0.053	0.017

附录 7：控股股东股权质押对企业不同类型违规行为的影响效应 Logit 回归完整估计结果

1. 采用面板 Logit 模型估计

为确保前文结果可靠，本文进一步采用假定残差服从逻辑分布的面板 Logit 模型进行稳健性检验。该模型基本形式如下：

$$P(Y_{it} = 1 | Pled_{it}, \mathbf{X}, \mathbf{Z}) = F\left(\alpha_0 + \alpha_1 Pled_{it} + \sum_{j=1}^m \alpha_j X_{ijt} + \sum_{j=1}^n \gamma_j Z_{ijt}\right) \quad (4)$$

其中， $F(\cdot)$ 为逻辑分布的累积概率密度函数，其他变量含义同正文。

2. 控股股东股权质押对企业不同类型违规行为的 Logit 回归结果

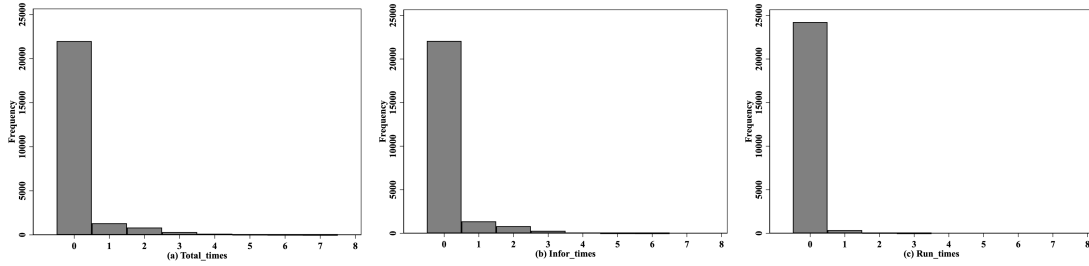
附表 8 控股股东股权质押对企业不同类型违规行为的 Logit 回归结果

	(1)	(2)	(3)	(4)	(5)	(6)
	Total dum	Infor dum	Oper dum	Total dum	Infor dum	Oper dum
<i>Pled_dum</i>	0.2735*** (0.047)	0.2998*** (0.048)	0.2249* (0.118)			
<i>Pled_ratio</i>				0.5470*** (0.068)	0.5914*** (0.069)	0.3837** (0.169)
<i>Lev</i>	1.2911*** (0.128)	1.2902*** (0.130)	1.2388*** (0.295)	1.2448*** (0.128)	1.2400*** (0.130)	1.2048*** (0.297)
<i>Roa</i>	-3.7677*** (0.279)	-3.7929*** (0.281)	-3.4554*** (0.419)	-3.6304*** (0.282)	-3.6465*** (0.284)	-3.3492*** (0.423)
<i>MB_ratio</i>	0.0140 (0.036)	0.0089 (0.038)	0.0131 (0.061)	0.0098 (0.037)	0.0042 (0.039)	0.0097 (0.063)
<i>Capint</i>	0.0385*** (0.008)	0.0358*** (0.008)	0.0428*** (0.016)	0.0364*** (0.008)	0.0335*** (0.009)	0.0411** (0.016)
<i>TobinQ</i>	-0.0111 (0.016)	-0.0091 (0.016)	-0.0815* (0.044)	-0.0049 (0.016)	-0.0024 (0.016)	-0.0763* (0.043)
<i>SOE</i>	-0.4972*** (0.059)	-0.4807*** (0.060)	-0.6617*** (0.152)	-0.4428*** (0.059)	-0.4229*** (0.060)	-0.6348*** (0.155)
<i>Dual</i>	0.0199 (0.049)	0.0185 (0.050)	-0.0485 (0.119)	0.0270 (0.049)	0.0263 (0.050)	-0.0438 (0.119)
<i>Board</i>	-0.2091 (0.133)	-0.1966 (0.135)	-0.4570 (0.332)	-0.2079 (0.133)	-0.1955 (0.135)	-0.4564 (0.331)
<i>InD_ratio</i>	-0.4766 (0.464)	-0.3992 (0.469)	-1.0077 (1.191)	-0.4951 (0.465)	-0.4189 (0.471)	-1.0180 (1.192)
<i>Age</i>	0.3619*** (0.036)	0.3661*** (0.036)	0.4471*** (0.092)	0.3342*** (0.036)	0.3358*** (0.036)	0.4274*** (0.093)
<i>Size</i>	-0.2140*** (0.023)	-0.2219*** (0.023)	-0.1832*** (0.053)	-0.2037*** (0.023)	-0.2105*** (0.023)	-0.1739*** (0.052)
<i>_cons</i>	1.9123*** (0.571)	1.9774*** (0.581)	-0.0313 (1.406)	1.7332*** (0.572)	1.7808*** (0.583)	-0.1851 (1.400)
<i>N</i>	24648	24648	24648	24648	24648	24648
Wald Chi2	863.266	861.749	252.628	904.673	908.165	260.112
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附录 8：控股股东股权质押对企业不同类型违规行为次数的影响效应完整估计结果

1. 采用面板负二项回归模型估计

为确保结果的合理性和可靠性，本文进一步采用上市公司违规行为次数进行稳健性检验。鉴于 2013—2021 年中国上市公司的违规次数具有典型的“有限范围非负整数”特征（见附图 1），若采用线性回归模型进行最小二乘法估计，将由于其分布的非连续性和非正态性造成严重的异方差问题。



附图 1 2013—2021 年上市公司不同违规行为次数频数统计

理论上，对于此类计数变量，采用泊松回归和负二项回归等计数模型最为合适。根据描述性统计结果可知，上市公司总体、信息披露以及经营违规次数各自的期望和方差均存在较大差异，不满足泊松分布基本假定。因此，本文建立如下面板负二项回归模型：

$$P(Y_{it} = y_{it} | \lambda_{it}, \theta) = \frac{\Gamma(\theta^{-1} + y_{it})}{\Gamma(\theta^{-1})\Gamma(y_{it} + 1)} \left(\frac{\theta^{-1}}{\theta^{-1} + \lambda_{it}} \right)^{\theta^{-1}} \left(\frac{\lambda_{it}}{\theta^{-1} + \lambda_{it}} \right)^{y_{it}} \quad (5)$$

$$\lambda_{it} = \exp \left(\alpha_0 + \alpha_1 Pled_{it} + \sum_{j=1}^m \alpha_j X_{ijt} + \sum_{j=1}^n \gamma_j Z_{ijt} \right) \quad (6)$$

其中， y_{it} 为上市公司 i 在 t 年被稽查的不同类型违规程度，分别以当年总体违规次数 ($Total_times$)、信息披露违规次数 ($Infor_times$) 以及经营违规次数 ($Oper_times$) 衡量； Γ 为伽马函数， θ 为离散参数^①；其他变量含义同正文。

2. 控股股东股权质押对企业不同类型违规次数的影响效应

附表 9 控股股东股权质押对企业不同类型违规次数的影响效应

	(1) Total dum	(2) Infor dum	(3) Oper dum	(4) Total dum	(5) Infor dum	(6) Oper dum
<i>Pled_dum</i>	0.2306*** (0.044)	0.2501*** (0.045)	0.1934* (0.115)			
<i>Pled_ratio</i>				0.4538*** (0.063)	0.4882*** (0.064)	0.2935* (0.158)
<i>Lev</i>	1.2844*** (0.119)	1.2747*** (0.122)	1.3189*** (0.307)	1.2427*** (0.119)	1.2320*** (0.122)	1.2981*** (0.307)
<i>Roa</i>	-2.7561*** (0.202)	-2.7023*** (0.207)	-3.0676*** (0.483)	-2.6462*** (0.202)	-2.5823*** (0.206)	-3.0116*** (0.485)
<i>MB_ratio</i>	0.0048 (0.030)	0.0029 (0.031)	0.0067 (0.079)	0.0015 (0.030)	-0.0009 (0.031)	0.0046 (0.080)
<i>Capint</i>	0.0392*** (0.008)	0.0360*** (0.008)	0.0513** (0.020)	0.0374*** (0.008)	0.0341*** (0.008)	0.0498** (0.020)
<i>TobinQ</i>	-0.0248 (0.015)	-0.0232 (0.015)	-0.1022** (0.044)	-0.0187 (0.015)	-0.0166 (0.015)	-0.0984** (0.044)
<i>SOE</i>	-0.4964*** (0.058)	-0.4849*** (0.059)	-0.6754*** (0.153)	-0.4491*** (0.058)	-0.4346*** (0.059)	-0.6657*** (0.153)
<i>Dual</i>	0.0140 (0.047)	0.0133 (0.048)	-0.0447 (0.122)	0.0195 (0.047)	0.0198 (0.048)	-0.0402 (0.121)
<i>Board</i>	-0.2104 (0.135)	-0.1827 (0.138)	-0.6062* (0.350)	-0.2089 (0.134)	-0.1797 (0.137)	-0.6045* (0.349)
<i>InD_ratio</i>	-0.4680 (0.451)	-0.3536 (0.460)	-1.0207 (1.180)	-0.4942 (0.450)	-0.3809 (0.458)	-1.0163 (1.178)
<i>Age</i>	0.3744*** (0.035)	0.3805*** (0.036)	0.5128*** (0.094)	0.3489*** (0.036)	0.3534*** (0.036)	0.4985*** (0.095)
<i>Size</i>	-0.2139*** (0.023)	-0.2210*** (0.024)	-0.1976*** (0.061)	-0.2048*** (0.023)	-0.2113*** (0.024)	-0.1897*** (0.061)
<i>_cons</i>	2.2507*** (0.587)	2.4335*** (0.601)	3.6138** (1.596)	2.0831*** (0.584)	2.2519*** (0.598)	3.4619** (1.591)

^① 当 θ 趋近于 0 时，式 (9) 由负二项分布转换为泊松分布。

N	24648	24648	24648	24648	24648	24648
Wald Chi2	1,013.056	960.163	211.398	1,066.090	1,013.525	213.860
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附录 9：融资约束对控股股东股权质押引发企业违规的调节效应完整估计结果

附表 10 融资约束对控股股东股权质押引发企业违规的调节效应

	(1)	(2)	(3)	(4)	(5)	(6)
	Total dum	Infor dum	Oper dum	Total times	Infor times	Oper times
Pled_dum	0.0751** (0.035)	0.0860** (0.035)	0.1174* (0.066)	0.1657*** (0.054)	0.1763*** (0.055)	0.2617* (0.140)
Pled_dum×SA	0.1092** (0.055)	0.1235** (0.056)	-0.0784 (0.102)	0.1804** (0.084)	0.2077** (0.086)	-0.1858 (0.216)
SA	-0.0259 (0.052)	-0.0374 (0.053)	0.0814 (0.094)	-0.0584 (0.082)	-0.0751 (0.084)	0.1721 (0.213)
Lev	0.7618*** (0.088)	0.7598*** (0.088)	0.5852*** (0.159)	1.2745*** (0.120)	1.2644*** (0.122)	1.3152*** (0.308)
Roa	-1.9746*** (0.182)	-1.9910*** (0.182)	-1.6294*** (0.235)	-2.7884*** (0.203)	-2.7381*** (0.208)	-3.0542*** (0.484)
MB_ratio	0.0013 (0.018)	-0.0013 (0.018)	0.0024 (0.032)	0.0046 (0.030)	0.0027 (0.031)	0.0053 (0.080)
SOE	-0.2902*** (0.040)	-0.2784*** (0.040)	-0.2919*** (0.076)	-0.4787*** (0.058)	-0.4645*** (0.060)	-0.6939*** (0.155)
Dual	0.0095 (0.031)	0.0085 (0.031)	-0.0145 (0.059)	0.0140 (0.047)	0.0132 (0.048)	-0.0426 (0.122)
TobinQ	-0.0084 (0.010)	-0.0069 (0.010)	-0.0431** (0.021)	-0.0256* (0.015)	-0.0240 (0.015)	-0.1032** (0.045)
Capint	0.0247*** (0.006)	0.0232*** (0.006)	0.0211** (0.009)	0.0387*** (0.008)	0.0354*** (0.008)	0.0517*** (0.020)
Board	-0.1176 (0.089)	-0.1016 (0.090)	-0.2676 (0.167)	-0.2032 (0.135)	-0.1753 (0.138)	-0.6040* (0.350)
InD_ratio	-0.2539 (0.292)	-0.1898 (0.294)	-0.4059 (0.576)	-0.4333 (0.451)	-0.3153 (0.460)	-1.0360 (1.180)
Age	0.2192*** (0.024)	0.2207*** (0.024)	0.2163*** (0.047)	0.3690*** (0.036)	0.3745*** (0.036)	0.5150*** (0.095)
Size	-0.1290*** (0.020)	-0.1331*** (0.020)	-0.1013*** (0.033)	-0.2204*** (0.031)	-0.2264*** (0.032)	-0.2256*** (0.083)
_cons	1.0878** (0.468)	1.0946** (0.474)	-0.0843 (0.799)	2.3997*** (0.736)	2.5625*** (0.754)	4.1798** (1.975)
N	24648	24648	24648	24648	24648	24648
Wald Chi2	624.13	625.57	171.65	1,016.55	964.55	212.13
Prob > Chi2	0.00	0.00	0.00	0.00	0.00	0.00

附录 10：股权制衡度对控股股东股权质押引发企业违规的调节效应完整估计结果

附表 11 股权制衡度对控股股东股权质押引发企业违规的调节效应

	(1)	(2)	(3)	(4)	(5)	(6)
	Total dum	Infor dum	Oper dum	Total times	Infor times	Oper times
Pled_dum	0.1957*** (0.038)	0.2104*** (0.038)	0.1503** (0.072)	0.3534*** (0.069)	0.3785*** (0.071)	0.3367* (0.180)
Pled_dum×Blance	-0.0621* (0.035)	-0.0641* (0.035)	-0.0513 (0.061)	-0.1314** (0.062)	-0.1380** (0.063)	-0.1298 (0.152)
Blance	0.1047*** (0.022)	0.1081*** (0.022)	0.1337*** (0.041)	0.2197*** (0.042)	0.2275*** (0.043)	0.3378*** (0.104)
Lev	0.6851*** (0.068)	0.6827*** (0.069)	0.5057*** (0.123)	1.3224*** (0.120)	1.3140*** (0.123)	1.4001*** (0.309)
Roa	-2.1421*** (0.158)	-2.1528*** (0.159)	-1.5620*** (0.218)	-2.6613*** (0.204)	-2.6068*** (0.208)	-2.8519*** (0.488)
MB_ratio	0.0073 (0.020)	0.0049 (0.020)	0.0035 (0.027)	0.0064 (0.030)	0.0046 (0.031)	0.0100 (0.080)
SOE	-0.2320*** (0.040)	-0.2215*** (0.040)	-0.2238*** (0.076)	-0.4336*** (0.058)	-0.4202*** (0.060)	-0.5796*** (0.155)

	(0.031)	(0.031)	(0.061)	(0.059)	(0.060)	(0.156)
Dual	0.0105	0.0098	-0.0178	0.0166	0.0161	-0.0448
	(0.026)	(0.026)	(0.048)	(0.047)	(0.048)	(0.121)
TobinQ	-0.0025	-0.0011	-0.0315*	-0.0258*	-0.0242	-0.1023**
	(0.009)	(0.009)	(0.017)	(0.015)	(0.015)	(0.045)
Capint	0.0193***	0.0176***	0.0161**	0.0380***	0.0348***	0.0499**
	(0.005)	(0.005)	(0.007)	(0.008)	(0.008)	(0.020)
Board	-0.1264*	-0.1182*	-0.2123	-0.2649**	-0.2378*	-0.6659*
	(0.070)	(0.071)	(0.133)	(0.135)	(0.138)	(0.348)
InD_ratio	-0.2597	-0.2125	-0.3320	-0.5066	-0.3934	-1.0174
	(0.241)	(0.243)	(0.479)	(0.451)	(0.459)	(1.178)
Age	0.1902***	0.1919***	0.1850***	0.3838***	0.3902***	0.5256***
	(0.019)	(0.019)	(0.037)	(0.036)	(0.036)	(0.094)
Size	-0.1104***	-0.1142***	-0.0704***	-0.2167***	-0.2238***	-0.2040***
	(0.012)	(0.012)	(0.021)	(0.023)	(0.024)	(0.061)
_cons	0.7861***	0.8042***	-0.6705	2.2089***	2.3874***	3.4731**
	(0.295)	(0.299)	(0.559)	(0.587)	(0.601)	(1.594)
N	24648	24648	24648	24648	24648	24648
Wald Chi2	871.19	872.29	209.00	1,036.65	983.77	222.17
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附录 11：不同内部控制质量下控股股东股权质押比例对企业违规次数影响整估计结果

附表 12 不同内部控制质量下控股股东股权质押行为与企业是否违规

	(1)	(2)	(3)	(4)	(5)	(6)
	低内控	高内控	低内控	高内控	低内控	高内控
	Total dum		Infor dum		Oper dum	
<i>Pled_dum</i>	0.1698***	0.1276***	0.1822***	0.1410***	0.1143*	0.0925
	(0.035)	(0.034)	(0.036)	(0.035)	(0.065)	(0.066)
<i>Lev</i>	0.7786***	0.6246***	0.7589***	0.6396***	0.5958***	0.3867**
	(0.096)	(0.097)	(0.097)	(0.098)	(0.162)	(0.184)
<i>Roa</i>	-1.6365***	-2.3915***	-1.6513***	-2.4086***	-1.0893***	-2.2360***
	(0.194)	(0.282)	(0.195)	(0.284)	(0.268)	(0.413)
<i>MB_ratio</i>	0.0481*	-0.0701*	0.0492*	-0.0886*	-0.0270	0.0219
	(0.027)	(0.042)	(0.027)	(0.048)	(0.045)	(0.037)
<i>Capint</i>	0.0168***	0.0209***	0.0166**	0.0173**	0.0197**	0.0115
	(0.006)	(0.007)	(0.006)	(0.007)	(0.009)	(0.013)
<i>TobinQ</i>	-0.0028	-0.0026	0.0000	-0.0038	-0.0512*	-0.0068
	(0.013)	(0.012)	(0.013)	(0.012)	(0.026)	(0.022)
<i>SOE</i>	-0.2644***	-0.2711***	-0.2609***	-0.2556**	-0.2632***	-0.2779***
	(0.044)	(0.043)	(0.044)	(0.043)	(0.084)	(0.085)
<i>Dual</i>	0.0188	-0.0059	0.0203	-0.0093	0.0043	-0.0501
	(0.037)	(0.036)	(0.038)	(0.036)	(0.068)	(0.068)
<i>Board</i>	-0.0820	-0.1167	-0.0642	-0.1175	-0.3910**	0.0733
	(0.100)	(0.099)	(0.101)	(0.100)	(0.183)	(0.194)
<i>InD_ratio</i>	0.0835	-0.5430	0.1485	-0.5139	-1.0225	0.4692
	(0.339)	(0.344)	(0.341)	(0.347)	(0.635)	(0.696)
<i>Age</i>	0.2067**	0.1657***	0.2096**	0.1661***	0.2717***	0.0815
	(0.027)	(0.026)	(0.027)	(0.026)	(0.054)	(0.050)
<i>Size</i>	-0.1281***	-0.0946***	-0.1305***	-0.0990***	-0.0969***	-0.0399
	(0.017)	(0.017)	(0.017)	(0.017)	(0.030)	(0.031)
_cons	1.0696**	0.6413	1.0320**	0.7190*	0.5694	-1.9533**
	(0.424)	(0.418)	(0.429)	(0.423)	(0.771)	(0.800)
N	10247	14401	10247	14401	10247	14401
LR Chi2	453.827	347.740	456.857	345.882	123.732	82.192
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附表 13 不同内部控制质量下控股股东股权质押比例与企业是否违规

	(1)	(2)	(3)	(4)	(5)	(6)
	低内控	高内控	低内控	高内控	低内控	高内控
	Total dum		Infor dum		Oper dum	
<i>Pled_ratio</i>	0.3705***	0.2756***	0.3925***	0.2999***	0.2528***	0.1152

	(0.054)	(0.051)	(0.055)	(0.051)	(0.097)	(0.096)
<i>Lev</i>	0.7588***	0.5984***	0.7380***	0.6110***	0.5854***	0.3793**
	(0.096)	(0.097)	(0.097)	(0.098)	(0.162)	(0.184)
<i>Roa</i>	-1.5106***	-2.3270***	-1.5190***	-2.3390***	-0.9914***	-2.2149***
	(0.197)	(0.284)	(0.197)	(0.286)	(0.271)	(0.414)
<i>MB_ratio</i>	0.0449*	-0.0751*	0.0459*	-0.0949*	-0.0304	0.0206
	(0.027)	(0.043)	(0.027)	(0.049)	(0.048)	(0.038)
<i>Capint</i>	0.0160**	0.0193***	0.0157**	0.0156**	0.0190**	0.0108
	(0.006)	(0.007)	(0.007)	(0.007)	(0.009)	(0.013)
<i>TobinQ</i>	0.0015	0.0003	0.0045	-0.0007	-0.0478*	-0.0055
	(0.013)	(0.012)	(0.013)	(0.013)	(0.026)	(0.022)
<i>SOE</i>	-0.2317***	-0.2388***	-0.2268***	-0.2210***	-0.2369***	-0.2820***
	(0.043)	(0.044)	(0.044)	(0.044)	(0.085)	(0.085)
<i>Dual</i>	0.0241	-0.0033	0.0259	-0.0064	0.0083	-0.0481
	(0.037)	(0.036)	(0.038)	(0.036)	(0.068)	(0.068)
<i>Board</i>	-0.0809	-0.1135	-0.0634	-0.1146	-0.3817**	0.0708
	(0.100)	(0.099)	(0.101)	(0.100)	(0.182)	(0.193)
<i>InD_ratio</i>	0.0945	-0.5547	0.1595	-0.5259	-1.0033	0.4630
	(0.339)	(0.345)	(0.342)	(0.348)	(0.636)	(0.697)
<i>Age</i>	0.1908***	0.1522***	0.1927***	0.1512***	0.2588***	0.0764
	(0.027)	(0.026)	(0.027)	(0.026)	(0.054)	(0.051)
<i>Size</i>	-0.1215***	-0.0901***	-0.1234***	-0.0940***	-0.0922***	-0.0359
	(0.017)	(0.017)	(0.017)	(0.017)	(0.030)	(0.031)
<i>_cons</i>	0.9323**	0.5596	0.8867**	0.6287	0.4483	-2.0082**
	(0.424)	(0.419)	(0.429)	(0.424)	(0.766)	(0.797)
<i>N</i>	10247	14401	10247	14401	10247	14401
LR Chi2	483.037	369.327	488.538	369.780	131.759	81.067
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附表 14 不同内部控制质量下控股股东股权质押行为与企业违规次数

	(1)	(2)	(3)	(4)	(5)	(6)
	低内控	高内控	低内控	高内控	低内控	高内控
	Total times		Infor times		Oper times	
<i>Pled_dum</i>	0.2833***	0.2545***	0.3005***	0.2792***	0.2539	0.2118
	(0.058)	(0.065)	(0.060)	(0.066)	(0.155)	(0.170)
<i>Lev</i>	1.3247***	1.2302***	1.2899***	1.2652***	1.4255***	1.0667**
	(0.151)	(0.172)	(0.155)	(0.175)	(0.413)	(0.464)
<i>Roa</i>	-2.0687***	-3.5088***	-2.0102***	-3.5182***	-1.6811**	-4.7248***
	(0.245)	(0.364)	(0.253)	(0.370)	(0.658)	(0.881)
<i>MB_ratio</i>	0.0499	-0.1226	0.0552*	-0.1664*	-0.0209	0.0445
	(0.031)	(0.077)	(0.031)	(0.088)	(0.146)	(0.101)
<i>Capint</i>	0.0288**	0.0392**	0.0268**	0.0345**	0.0600**	0.0246
	(0.010)	(0.012)	(0.010)	(0.012)	(0.026)	(0.033)
<i>TobinQ</i>	-0.0300	-0.0140	-0.0273	-0.0175	-0.1489**	-0.0300
	(0.020)	(0.022)	(0.020)	(0.023)	(0.063)	(0.061)
<i>SOE</i>	-0.4770***	-0.5050***	-0.4793***	-0.4753***	-0.6495***	-0.7400***
	(0.074)	(0.081)	(0.077)	(0.083)	(0.205)	(0.225)
<i>Dual</i>	0.0167	-0.0087	0.0148	-0.0105	0.0193	-0.1591
	(0.061)	(0.068)	(0.062)	(0.069)	(0.165)	(0.183)
<i>Board</i>	-0.1682	-0.2706	-0.1256	-0.2732	-1.1444**	0.0866
	(0.172)	(0.193)	(0.176)	(0.196)	(0.473)	(0.516)
<i>InD_ratio</i>	0.1967	-1.1699*	0.3616	-1.1180*	-2.7341*	0.9608
	(0.573)	(0.663)	(0.584)	(0.674)	(1.641)	(1.671)
<i>Age</i>	0.3641***	0.3321***	0.3723***	0.3335***	0.7167***	0.2565**
	(0.047)	(0.049)	(0.049)	(0.049)	(0.134)	(0.130)
<i>Size</i>	-0.2212***	-0.1928***	-0.2261***	-0.2013***	-0.2670***	-0.1183
	(0.030)	(0.033)	(0.031)	(0.034)	(0.085)	(0.088)
<i>_cons</i>	2.2395***	1.9961**	2.3782***	2.2821***	7.8115***	0.1605
	(0.766)	(0.839)	(0.788)	(0.857)	(2.371)	(2.263)
<i>N</i>	10247	14401	10247	14401	10247	14401
Wald Chi2	577.243	445.350	538.308	435.521	106.748	77.293
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附表 15 不同内部控制质量下控股股东股权质押比例与企业违规次数

	(1) 低内控	(2) 高内控	(3) 低内控	(4) 高内控	(5) 低内控	(6) 高内控
	Total times		Infor times		Oper times	
<i>Pled_ratio</i>	0.5839*** (0.084)	0.4822*** (0.089)	0.6087*** (0.085)	0.5260*** (0.091)	0.4606** (0.212)	0.2248 (0.237)
<i>Lev</i>	1.2677*** (0.152)	1.2001*** (0.170)	1.2303*** (0.156)	1.2320*** (0.173)	1.4609*** (0.414)	1.0516** (0.459)
<i>Roa</i>	-1.8839*** (0.245)	-3.3388*** (0.363)	-1.8270*** (0.252)	-3.3373*** (0.369)	-1.6001** (0.661)	-4.4803*** (0.892)
<i>MB_ratio</i>	0.0468 (0.031)	-0.1338* (0.079)	0.0521* (0.031)	-0.1807** (0.090)	-0.0307 (0.156)	0.0395 (0.101)
<i>Capint</i>	0.0265*** (0.010)	0.0365*** (0.012)	0.0243** (0.010)	0.0317*** (0.012)	0.0575** (0.026)	0.0224 (0.033)
<i>TobinQ</i>	-0.0203 (0.020)	-0.0085 (0.022)	-0.0167 (0.021)	-0.0119 (0.023)	-0.1579** (0.067)	-0.0147 (0.058)
<i>SOE</i>	-0.4158*** (0.075)	-0.4508*** (0.082)	-0.4158*** (0.077)	-0.4170*** (0.084)	-0.6321*** (0.205)	-0.7422*** (0.224)
<i>Dual</i>	0.0248 (0.061)	-0.0048 (0.067)	0.0254 (0.062)	-0.0064 (0.069)	0.0030 (0.166)	-0.1154 (0.180)
<i>Board</i>	-0.1624 (0.172)	-0.2760 (0.191)	-0.1163 (0.176)	-0.2782 (0.194)	-1.1132** (0.475)	0.0352 (0.509)
<i>InD_ratio</i>	0.1553 (0.573)	-1.1573* (0.657)	0.3252 (0.582)	-1.1111* (0.669)	-2.8972* (1.653)	1.1270 (1.648)
<i>Age</i>	0.3355*** (0.048)	0.3054*** (0.048)	0.3406*** (0.049)	0.3049*** (0.049)	0.7008*** (0.136)	0.2578** (0.129)
<i>Size</i>	-0.2107*** (0.030)	-0.1839*** (0.032)	-0.2145*** (0.031)	-0.1913*** (0.033)	-0.2681*** (0.086)	-0.1071 (0.086)
<i>_cons</i>	2.0234*** (0.767)	1.8420** (0.830)	2.1168*** (0.787)	2.1200** (0.848)	7.7034*** (2.352)	-0.0253 (2.231)
<i>N</i>	10153	14495	10153	14495	10153	14495
Wald Chi2	630.464	466.849	590.177	458.981	112.938	73.453
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附录 12: 不同被分析师关注度下控股股东股权质押对企业违规行为的影响完整估计结果

附表 16 不同被分析师关注度下控股股东股权质押行为与企业是否违规

	(1) 低外察	(2) 高外察	(3) 低外察	(4) 高外察	(5) 低外察	(6) 高外察
	Total times		Infor times		Oper times	
<i>Pled_dum</i>	0.1943*** (0.034)	0.0751** (0.035)	0.2088*** (0.034)	0.0857** (0.036)	0.1327** (0.062)	0.0468 (0.072)
<i>Lev</i>	0.6059*** (0.093)	0.7855*** (0.100)	0.5801*** (0.094)	0.8114*** (0.100)	0.4828*** (0.157)	0.5399*** (0.193)
<i>Roa</i>	-2.1978*** (0.193)	-1.8755*** (0.287)	-2.2218*** (0.194)	-1.8589*** (0.288)	-1.6671*** (0.253)	-0.8740* (0.451)
<i>MB_ratio</i>	0.0325 (0.024)	-0.0534 (0.038)	0.0286 (0.024)	-0.0526 (0.038)	-0.0064 (0.038)	0.0086 (0.045)
<i>Capint</i>	0.0171*** (0.006)	0.0248*** (0.007)	0.0145** (0.006)	0.0243*** (0.007)	0.0282*** (0.009)	-0.0054 (0.014)
<i>TobinQ</i>	-0.0133 (0.013)	0.0100 (0.011)	-0.0134 (0.014)	0.0130 (0.011)	-0.0267 (0.023)	-0.0241 (0.024)
<i>Dual</i>	0.0196 (0.036)	-0.0039 (0.037)	0.0163 (0.036)	-0.0020 (0.038)	-0.0086 (0.064)	-0.0322 (0.074)
<i>Board</i>	-0.0684 (0.097)	-0.1103 (0.101)	-0.0560 (0.098)	-0.1039 (0.102)	-0.1984 (0.178)	-0.0978 (0.201)
<i>InD_ratio</i>	-0.1052 (0.331)	-0.4041 (0.350)	-0.0977 (0.333)	-0.3092 (0.353)	-0.2679 (0.632)	-0.3715 (0.711)
<i>SOE</i>	-0.2607*** (0.042)	-0.2617*** (0.044)	-0.2514*** (0.042)	-0.2519*** (0.044)	-0.2632*** (0.080)	-0.2549*** (0.089)
<i>Age</i>	0.1738*** (0.026)	0.1859*** (0.027)	0.1787*** (0.026)	0.1833*** (0.027)	0.1532*** (0.050)	0.1986*** (0.056)
<i>Size</i>	-0.1148***	-0.1010***	-0.1172***	-0.1062***	-0.0611**	-0.0793***

	(0.018)	(0.016)	(0.018)	(0.016)	(0.031)	(0.030)
<i>_cons</i>	0.8960**	0.6246	0.9055**	0.6506	-0.7184	-0.6573
	(0.429)	(0.409)	(0.434)	(0.415)	(0.775)	(0.796)
<i>N</i>	11805	12843	11805	12843	11805	12843
LR Chi2	505.757	331.588	502.481	334.958	151.133	47.439
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附表 17 不同被分析师关注度下控股股东股权质押比例与企业是否违规

	(1)	(2)	(3)	(4)	(5)	(6)
	低外察	高外察	低外察	高外察	低外察	高外察
	Total times		Infor times		Oper times	
<i>Pled_ratio</i>	0.3769***	0.1961***	0.3997***	0.2185***	0.2532***	0.0424
	(0.051)	(0.054)	(0.051)	(0.054)	(0.090)	(0.106)
<i>Lev</i>	0.5733***	0.7720***	0.5454***	0.7968***	0.4636***	0.5384***
	(0.093)	(0.100)	(0.094)	(0.101)	(0.158)	(0.194)
<i>Roa</i>	-2.0917***	-1.8258***	-2.1104***	-1.8040***	-1.5846***	-0.8757*
	(0.195)	(0.287)	(0.196)	(0.289)	(0.256)	(0.451)
<i>MB_ratio</i>	0.0303	-0.0570	0.0263	-0.0566	-0.0081	0.0078
	(0.024)	(0.039)	(0.025)	(0.039)	(0.039)	(0.045)
<i>Capint</i>	0.0160***	0.0238***	0.0133**	0.0232***	0.0274***	-0.0057
	(0.006)	(0.007)	(0.006)	(0.007)	(0.009)	(0.015)
<i>TobinQ</i>	-0.0089	0.0121	-0.0088	0.0154	-0.0230	-0.0238
	(0.013)	(0.011)	(0.013)	(0.011)	(0.023)	(0.024)
<i>Dual</i>	0.0237	-0.0006	0.0207	0.0016	-0.0043	-0.0321
	(0.036)	(0.037)	(0.036)	(0.038)	(0.064)	(0.074)
<i>Board</i>	-0.0589	-0.1124	-0.0462	-0.1066	-0.1834	-0.1003
	(0.097)	(0.101)	(0.098)	(0.102)	(0.177)	(0.201)
<i>InD_ratio</i>	-0.0954	-0.4154	-0.0866	-0.3223	-0.2565	-0.3696
	(0.332)	(0.350)	(0.334)	(0.353)	(0.633)	(0.710)
<i>SOE</i>	-0.2307***	-0.2339***	-0.2204***	-0.2215***	-0.2419***	-0.2625***
	(0.042)	(0.044)	(0.042)	(0.045)	(0.081)	(0.089)
<i>Age</i>	0.1607***	0.1745***	0.1647***	0.1705***	0.1440***	0.1965***
	(0.026)	(0.027)	(0.026)	(0.027)	(0.050)	(0.057)
<i>Size</i>	-0.1085***	-0.0981***	-0.1104***	-0.1029***	-0.0565*	-0.0768***
	(0.018)	(0.016)	(0.018)	(0.016)	(0.031)	(0.029)
<i>_cons</i>	0.7554*	0.5787	0.7554*	0.5994	-0.8448	-0.6887
	(0.429)	(0.410)	(0.433)	(0.416)	(0.770)	(0.792)
<i>N</i>	11805	12843	11805	12843	11805	12843
LR Chi2	532.287	344.949	531.325	350.761	158.574	47.115
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附表 18 不同被分析师关注度下控股股东股权质押行为与企业违规次数

	(1)	(2)	(3)	(4)	(5)	(6)
	低外察	高外察	低外察	高外察	低外察	高外察
	Total times		Infor times		Oper times	
<i>Pled_dum</i>	0.3273***	0.1482**	0.3511***	0.1624**	0.2766*	0.1127
	(0.059)	(0.065)	(0.060)	(0.067)	(0.146)	(0.181)
<i>Lev</i>	1.1255***	1.4947***	1.0924***	1.5326***	1.2339***	1.5081***
	(0.156)	(0.174)	(0.160)	(0.179)	(0.383)	(0.495)
<i>Roa</i>	-2.6867***	-2.7916***	-2.6368***	-2.7519***	-2.8687***	-2.4045**
	(0.241)	(0.381)	(0.247)	(0.391)	(0.563)	(1.130)
<i>MB_ratio</i>	0.0263	-0.0816	0.0236	-0.0801	-0.0227	0.0620
	(0.032)	(0.070)	(0.034)	(0.070)	(0.102)	(0.151)
<i>Capint</i>	0.0346***	0.0411***	0.0295***	0.0414***	0.0706***	-0.0102
	(0.010)	(0.012)	(0.011)	(0.012)	(0.023)	(0.039)
<i>TobinQ</i>	-0.0443*	0.0106	-0.0459*	0.0158	-0.0910	-0.0505
	(0.024)	(0.020)	(0.024)	(0.020)	(0.063)	(0.060)
<i>Dual</i>	0.0291	-0.0167	0.0241	-0.0136	-0.0085	-0.0991
	(0.062)	(0.068)	(0.063)	(0.070)	(0.154)	(0.194)
<i>Board</i>	-0.1633	-0.2347	-0.1303	-0.2261	-0.5964	-0.3671
	(0.176)	(0.196)	(0.180)	(0.201)	(0.434)	(0.555)
<i>InD_ratio</i>	-0.3536	-0.6279	-0.3090	-0.4347	-0.7890	-1.5138
	(0.579)	(0.678)	(0.592)	(0.690)	(1.446)	(1.943)

<i>SOE</i>	-0.4834*** (0.076)	-0.4820*** (0.082)	-0.4721*** (0.078)	-0.4686*** (0.084)	-0.6656*** (0.195)	-0.6789*** (0.230)
<i>Age</i>	0.3375*** (0.048)	0.3473*** (0.048)	0.3500*** (0.050)	0.3450*** (0.050)	0.4435*** (0.125)	0.5072*** (0.136)
<i>Size</i>	-0.2166*** (0.033)	-0.1903*** (0.031)	-0.2239*** (0.033)	-0.1986*** (0.032)	-0.1628** (0.082)	-0.2183** (0.090)
<i>_cons</i>	2.2996*** (0.808)	1.6775** (0.822)	2.5504*** (0.829)	1.8632** (0.844)	2.7248 (2.058)	4.3688* (2.583)
<i>N</i>	11805	12843	11805	12843	11805	12843
Wald Chi2	625.483	396.162	582.160	384.008	142.032	49.980
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附表 19 不同被分析师关注度下控股股东股权质押比例与企业违规次数

	(1) 低外察	(2) 高外察	(3) 低外察	(4) 高外察	(5) 低外察	(6) 高外察
	Total times		Infor times		Oper times	
<i>Pled_ratio</i>	0.5913*** (0.082)	0.3470*** (0.094)	0.6228*** (0.083)	0.3803*** (0.096)	0.4787** (0.195)	0.0890 (0.264)
<i>Lev</i>	1.0522*** (0.155)	1.4681*** (0.174)	1.0191*** (0.159)	1.5037*** (0.179)	1.1984*** (0.382)	1.5026*** (0.496)
<i>Roa</i>	-2.5266*** (0.239)	-2.7154*** (0.381)	-2.4721*** (0.245)	-2.6666*** (0.392)	-2.7398*** (0.565)	-2.4183** (1.134)
<i>MB_ratio</i>	0.0243 (0.033)	-0.0874 (0.071)	0.0211 (0.035)	-0.0861 (0.072)	-0.0259 (0.104)	0.0604 (0.152)
<i>Capint</i>	0.0319*** (0.010)	0.0397*** (0.012)	0.0267** (0.010)	0.0399*** (0.012)	0.0684*** (0.023)	-0.0108 (0.039)
<i>TobinQ</i>	-0.0358 (0.023)	0.0150 (0.020)	-0.0372 (0.024)	0.0205 (0.020)	-0.0831 (0.062)	-0.0499 (0.060)
<i>Dual</i>	0.0387 (0.061)	-0.0129 (0.068)	0.0355 (0.063)	-0.0091 (0.070)	-0.0010 (0.153)	-0.0987 (0.194)
<i>Board</i>	-0.1519 (0.174)	-0.2391 (0.196)	-0.1161 (0.178)	-0.2301 (0.200)	-0.5778 (0.433)	-0.3749 (0.555)
<i>InD_ratio</i>	-0.3527 (0.575)	-0.6649 (0.677)	-0.3050 (0.587)	-0.4718 (0.689)	-0.7546 (1.444)	-1.5102 (1.943)
<i>SOE</i>	-0.4315*** (0.076)	-0.4343*** (0.082)	-0.4201*** (0.078)	-0.4160*** (0.085)	-0.6333*** (0.194)	-0.7020*** (0.232)
<i>Age</i>	0.3082*** (0.048)	0.3251*** (0.049)	0.3193*** (0.049)	0.3207*** (0.050)	0.4237*** (0.125)	0.5035*** (0.137)
<i>Size</i>	-0.2038*** (0.032)	-0.1842*** (0.031)	-0.2103*** (0.033)	-0.1920*** (0.032)	-0.1536* (0.081)	-0.2117** (0.089)
<i>_cons</i>	2.0229** (0.801)	1.5829* (0.821)	2.2489** (0.822)	1.7589** (0.842)	2.4675 (2.050)	4.2839* (2.578)
<i>N</i>	11805	12843	11805	12843	11805	12843
Wald Chi2	680.800	408.795	635.797	397.889	147.117	49.855
Prob > Chi2	0.000	0.000	0.000	0.000	0.000	0.000

附录 13: 内控外察二分四象限法下控股股东股权质押对企业违规的影响差异完整估计结果

附表 20 二分四象限法下控股股东股权质押比例与企业总体是否违规

	(1) 低内控—低外察	(2) 高内控—低外察	(3) 低内控—高外察	(4) 高内控—高外察
<i>Pled_ratio</i>	0.4710*** (0.071)	0.2084** (0.086)	0.3195*** (0.073)	0.2316*** (0.071)
<i>Lev</i>	0.7537*** (0.127)	0.8046*** (0.148)	0.4085*** (0.140)	0.8109*** (0.137)
<i>Roa</i>	-1.4016*** (0.236)	-1.4160*** (0.384)	-2.6565*** (0.379)	-1.7698*** (0.445)
<i>MB_ratio</i>	0.0752** (0.034)	-0.0039 (0.045)	-0.0240 (0.038)	-0.2127*** (0.075)
<i>Capint</i>	0.0124 (0.008)	0.0213** (0.010)	0.0176* (0.009)	0.0226** (0.010)
<i>TobinQ</i>	-0.0224	0.0236	0.0061	-0.0079

	(0.019)	(0.017)	(0.019)	(0.016)
<i>Dual</i>	0.0066	0.0431	0.0388	-0.0406
	(0.050)	(0.056)	(0.052)	(0.050)
<i>Board</i>	0.0148	-0.1928	-0.1674	-0.0365
	(0.134)	(0.151)	(0.143)	(0.136)
<i>InD_ratio</i>	0.5282	-0.4779	-0.7580	-0.3927
	(0.447)	(0.523)	(0.500)	(0.472)
<i>SOE</i>	-0.2675***	-0.1817***	-0.1892***	-0.2755***
	(0.058)	(0.066)	(0.062)	(0.061)
<i>Age</i>	0.2094***	0.1630***	0.1060***	0.1813***
	(0.038)	(0.040)	(0.037)	(0.037)
<i>Size</i>	-0.1423***	-0.0992***	-0.0786***	-0.0923***
	(0.024)	(0.024)	(0.026)	(0.022)
<i>_cons</i>	1.0441*	0.8687	0.6548	0.2873
	(0.592)	(0.608)	(0.632)	(0.561)
<i>N</i>	5511	4736	6294	8107
LR Chi2	326.250	149.792	183.941	189.108
Prob > Chi2	0.000	0.000	0.000	0.000

附表 21 二分四象限法下控股股东股权质押比例与企业是否信息披露违规

	(1) 低内控—低外察	(2) 高内控—低外察	(3) 低内控—高外察	(4) 高内控—高外察
<i>Pled_ratio</i>	0.4878**	0.2382**	0.3521***	0.2479**
	(0.071)	(0.086)	(0.073)	(0.071)
<i>Lev</i>	0.7101***	0.8199***	0.4011***	0.8416***
	(0.128)	(0.150)	(0.142)	(0.138)
<i>Roa</i>	-1.4177***	-1.3888***	-2.6798***	-1.7653***
	(0.236)	(0.387)	(0.382)	(0.447)
<i>MB_ratio</i>	0.0774**	-0.0051	-0.0471	-0.2088***
	(0.034)	(0.045)	(0.049)	(0.075)
<i>Capint</i>	0.0123	0.0209*	0.0113	0.0216**
	(0.009)	(0.010)	(0.010)	(0.010)
<i>TobinQ</i>	-0.0209	0.0289*	0.0036	-0.0061
	(0.019)	(0.017)	(0.020)	(0.016)
<i>Dual</i>	0.0065	0.0479	0.0317	-0.0409
	(0.051)	(0.057)	(0.053)	(0.050)
<i>Board</i>	0.0367	-0.1800	-0.1707	-0.0382
	(0.135)	(0.154)	(0.144)	(0.138)
<i>InD_ratio</i>	0.6328	-0.4731	-0.8803*	-0.2155
	(0.449)	(0.530)	(0.506)	(0.474)
<i>SOE</i>	-0.2711***	-0.1638**	-0.1605**	-0.2683***
	(0.058)	(0.066)	(0.063)	(0.062)
<i>Age</i>	0.2174***	0.1556***	0.1053***	0.1797***
	(0.038)	(0.040)	(0.038)	(0.037)
<i>Size</i>	-0.1434**	-0.1020**	-0.0813**	-0.0985***
	(0.024)	(0.024)	(0.027)	(0.022)
<i>_cons</i>	0.9624	0.8655	0.7750	0.3244
	(0.599)	(0.618)	(0.639)	(0.570)
<i>N</i>	5511	4736	6294	8107
LR Chi2	330.016	151.951	179.879	193.226
Prob > Chi2	0.000	0.000	0.000	0.000

附表 22 二分四象限法下控股股东股权质押比例与企业是否信息披露违规

	(1) 低内控—低外察	(2) 高内控—低外察	(3) 低内控—高外察	(4) 高内控—高外察
<i>Pled_ratio</i>	0.4225***	-0.0675	0.0672	0.1852
	(0.120)	(0.173)	(0.137)	(0.134)
<i>Lev</i>	0.5502***	0.7117***	0.4604*	0.3845
	(0.207)	(0.260)	(0.242)	(0.291)
<i>Roa</i>	-0.9411***	-0.3852	-2.4953***	-1.2236*
	(0.312)	(0.615)	(0.508)	(0.713)
<i>MB_ratio</i>	-0.2800	0.0531	0.0399	-0.2655
	(0.182)	(0.044)	(0.035)	(0.169)

<i>Capint</i>	0.0299*** (0.011)	-0.0039 (0.019)	0.0240 (0.015)	-0.0170 (0.023)
<i>TobinQ</i>	-0.0658* (0.038)	-0.0482 (0.040)	-0.0105 (0.035)	-0.0205 (0.033)
<i>Dual</i>	0.0108 (0.087)	-0.0045 (0.109)	-0.0156 (0.094)	-0.0696 (0.097)
<i>Board</i>	-0.2562 (0.245)	-0.5329* (0.274)	-0.1068 (0.265)	0.4112 (0.271)
<i>InD_ratio</i>	-1.2243 (0.846)	-0.7603 (0.950)	0.7597 (0.904)	-0.0828 (1.063)
<i>SOE</i>	-0.2670** (0.112)	-0.2059 (0.128)	-0.2222* (0.115)	-0.3416*** (0.127)
<i>Age</i>	0.2564*** (0.074)	0.2771*** (0.082)	0.0286 (0.068)	0.1148 (0.080)
<i>Size</i>	-0.0551 (0.040)	-0.1299*** (0.045)	-0.0517 (0.049)	-0.0080 (0.037)
<i>_cons</i>	-0.3759 (0.988)	1.4207 (1.157)	-1.3014 (1.162)	-3.0902*** (1.056)
<i>N</i>	5511	4736	6294	8107
LR Chi2	108.328	38.610	66.305	28.898
Prob > Chi2	0.000	0.000	0.000	0.000