

Dear Professor,

Thank you for a thorough analysis of the results presented in the paper. Following your suggestions we decided to augment our paper in the following ways:

(1) According to your suggestion, we discuss about the Hypothese H3 and H4 deeply. We explain why in the poor institutional environment the inner structure of pyramid has a larger impact on capital structure. We replenish the following parts and revised the sentences that make you confused in your example.

Contingency theory suggests that the organizational process must fit its context. The improvement of institutional environment will mitigate agency problems between the ultimate controllers and minority shareholders (Dyck & Zingales, 2004), and further affect the impact of agency cost on corporate capital structure (Li, Yue & Zhao, 2009). Weak institutional environment makes it problematic and costly to monitor and enforce contracts (Young et al., 2008). The ultimate owner can play a role in capital structure through pyramid structure more conveniently in the poor institutional environment. Lins (2003) also find that the wedge between ultimate owner's control right and cash flow right has a larger negative effect on firm value in less-developed regions. Thus, in less-developed regions, the inner structure of pyramid will have a larger impact on corporate capital structure decisions.

(2) According to your suggestion, we synthesize H3 and H4 in a sentence and formulate them again. H3: Compared with poor institutional environment regions, in regions with better institutional environment (high degree of marketization, low government intervention and perfect law environment), both the impacts of the layers

and the number of chains of pyramid structure on corporate capital structure are relatively smaller.

(3) In this paper, capital structure is measured using the total financial debt. In China, the short term debt takes a large share and is always used for long-term purpose in Chinese listed companies, so we calculates capital structure as the total debt divided by total assets.

(4) According to your suggestion, we add the calculation of Tobin's Q in the footnote and discussed the difference in calculation with other empirical papers concerning US.

Tobin's Q is defined as the market value of total assets deflated by the book value of total assets. There are two kinds of shares in Chinese listed companies: tradable shares and non- tradable shares. We calculate the firm market value as the sum of total liability, market value of tradable shares and the book value of non-tradable shares.

(5) According to your suggestion, we conclude the variable of group (whether the firm belongs to a group) in the regression analysis to examine your conjecture in your first suggestion. From the regression results, we can see that firms belonging to a group will have significant positive impacts on capital structure. The regression results are present as follows.

**Table 1 Multiple Regression Analysis (Group included)**

Variable	<i>LEV</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant	-1.244*** (-22.949)	-1.245*** (-22.909)	-1.242*** (-22.935)	-1.263*** (-23.219)	-1.255*** (-23.115)	-1.255*** (-23.130)	-1.263*** (-23.158)	-1.256*** (-23.063)	-1.254*** (-23.078)
<i>LLAY</i>	0.002* (1.964)			0.019*** (3.773)	0.023*** (3.153)	0.009*** (3.013)			
<i>SLAY</i>		0.002*					0.019***	0.023***	0.009***

		(1.765)				(3.519)	(2.915)	(2.878)	
<i>CHAIN</i>		0.002							
		(0.744)							
<i>MARLLAY</i>				-0.002***					
				(-3.713)					
<i>GOVLLAY</i>						-0.002***			
						(-3.003)			
<i>LAWLLAY</i>								-0.001***	
								(-3.372)	
<i>MARSLAY</i>									-0.002***
									(-3.564)
<i>GOVSLAY</i>									-0.002***
									(-2.843)
<i>LAWSLAY</i>									-0.001***
									(-3.441)
<i>SIZE</i>	0.078***	0.078***	0.078***	0.079***	0.079***	0.079***	0.079***	0.079***	0.079***
	(32.670)	(32.726)	(32.668)	(32.874)	(32.786)	(32.806)	(32.907)	(32,828)	(32.841)
<i>CVA</i>	0.129***	0.129***	0.130***	0.127***	0.128***	0.128***	0.128***	0.129***	0.128***
	(13.700)	(13.682)	(13.714)	(13.486)	(13.603)	(13.494)	(13.514)	(13,614)	(13.507)
<i>ROA</i>	-0.681***	-0.681***	-0.682***	-0.680***	-0.680***	-0.680***	-0.680***	-0.680***	-0.681***
	(-38.227)	(-38.218)	(-38.271)	(-38.174)	(-38.187)	(-38.200)	(-38.165)	(-38,163)	(-38.196)
<i>TOB</i>	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	(0.691)	(0.681)	(0.695)	(0.722)	(0.707)	(0.686)	(0.703)	(0,690)	(0.669)
<b>Group</b>	<b>0.008*</b>	<b>0.008**</b>	<b>0.008**</b>	<b>0.007*</b>	<b>0.007*</b>	<b>0.007*</b>	<b>0.008**</b>	<b>0.008**</b>	<b>0.008*</b>
	<b>(1.883)</b>	<b>(2.093)</b>	<b>(2.196)</b>	<b>(1.831)</b>	<b>(1,827)</b>	<b>(1,813)</b>	<b>(1.983)</b>	<b>(2.007)</b>	<b>(1.957)</b>
<i>INDU</i>	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
<i>YEAR</i>	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
<i>Within R<sup>2</sup></i>	0.2752	0.2753	0.2755	0.2758	0.2754	0.2751	0.2756	0.2753	0.2751
<i>Wald value</i>	3295.65***	3294.81***	3294.92***	3314.82***	3308.14***	3312.06***	3312.58***	3306.03***	3312.07***

Note: This table reports the results from regression results of the pyramid inner structure on capital structure in Chinese listed companies for the sample period 2004-2009. There are 7729 firm-year observations in the sample. The value in brackets represents z values; Coefficients significantly different from zero at the 10%, 5%, and 1% level are marked \*, \*\* and \*\*\*, respectively. The variable definitions are displayed in table 1.

(6) According to your suggestion, we have conducted the regression analysis considering the short vs long term debt to examine their eventual differences. The regression results are present as follows. From the regression results, we can see that the conclusions in the paper are also supported. Due to the coinsurance effect of a group, it has a significant positive effect on short debt ratio. However, due to the serious agency problems in firms belonged to a group, the group has a negative but

not significant effect on long term debt ratio.

**Table 2 Multiple Regression Analysis ( using the long term debt ratio as the dependent variable)**

Variable	<i>LD</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant	-0.642*** (-20.027)	-0.643*** (-20.034)	-0.642*** (-20.019)	-0.661*** (-20.588)	-0.651*** (-20.317)	-0.653*** (-20.385)	-0.661*** (-20.580)	-0.653*** (-20.344)	-0.652*** (-20.360)
<i>LLAY</i>	0.001* (1.860)			0.015*** (5.040)	0.016*** (3.788)	0.006*** (3.381)			
<i>SLAY</i>		0.001* (1.944)					0.016*** (5.027)	0.019*** (4.036)	0.007*** (3.336)
<i>CHAIN</i>			0.001 (0.525)						
<i>MARLLAY</i>				-0.002*** (-5.265)					
<i>GOVLLAY</i>					-0.002*** (-3.710)				
<i>LAWLLAY</i>						-0.001*** (-4.193)			
<i>MARSLAY</i>							-0.002*** (-5.196)		
<i>GOVSLAY</i>								-0.002*** (-3.943)	
<i>LAWSLAY</i>									-0.001*** (-3.993)
<i>SIZE</i>	0.033*** (22.789)	0.033*** (22.836)	0.033*** (22.868)	0.033*** (23.240)	0.033*** (23.004)	0.033*** (23.076)	0.033*** (23.265)	0.033*** (23.057)	0.033*** (23.088)
<i>CVA</i>	0.023*** (3.529)	0.023*** (3.508)	0.023*** (3.548)	0.021*** (3.243)	0.023*** (3.432)	0.022*** (3.288)	0.022*** (3.270)	0.023*** (3.431)	0.022*** (3.311)
<i>ROA</i>	-0.137*** (-10.730)	-0.136*** (-10.703)	-0.137*** (-10.788)	-0.134*** (-10.547)	-0.135*** (-10.605)	-0.135*** (-10.628)	-0.134*** (-10.538)	-0.135*** (-10.566)	-0.135*** (-10.620)
<i>TOB</i>	-0.004*** (-3.598)	-0.004*** (-3.611)	-0.004*** (-3.589)	-0.004*** (-3.543)	-0.004*** (-3.574)	-0.004*** (-3.573)	-0.004*** (-3.556)	-0.004*** (-3.587)	-0.004*** (-3.585)
Group	-0.004 (-1.333)	-0.003 (-1.316)	-0.003 (-1.171)	-0.004 (-1.369)	-0.004 (-1.379)	-0.004 (-1.377)	-0.004 (-1.417)	-0.004 (-1.394)	-0.004 (-1.417)
<i>INDU</i>	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
<i>YEAR</i>	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
<i>Within R<sup>2</sup></i>	0.1079	0.1079	0.1079	0.1061	0.1061	0.1055	0.1056	0.1062	0.1052
<i>Wald value</i>	1715.44	1715.64	1715.74	1761.34	1740.52	1748.17	1761.72	1743.33	1746.73

Note: the number in the ( ) represents z value; \*, \*\*, \*\*\* represent significant at the 10%, 5 % and 1% level, respectively.

**Table 3 Multiple Regression Analysis ( using the short term debt ratio as the dependent variable)**

Variable	SD								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant	-0.497*** (-9.079)	-0.497*** (-9.052)	-0.497*** (-9.070)	-0.505*** (-9.176)	-0.504*** (-9.182)	-0.505*** (-9.195)	-0.505*** (-9.152)	-0.503*** (-9.129)	-0.505*** (-9.179)
<i>LLAY</i>	0.001* (1.770)			0.007* (1.740)	0.013* (1.744)	0.005* (1.705)			
<i>SLAY</i>		0.000* (1.767)					0.007* (1.751)	0.011 (1.332)	0.005* (1.739)
<i>CHAIN</i>			-0.000 (-0.052)						
<i>MARLLAY</i>				-0.001* (-1.719)					
<i>GOVLLAY</i>					-0.001* (-1.711)				
<i>LAWLLAY</i>						-0.001** (-1.963)			
<i>MARSLAY</i>							-0.001* (-1.761)		
<i>GOVSLAY</i>								-0.001 (-1.372)	
<i>LAWSLAY</i>									-0.001** (-2.303)
<i>SIZE</i>	0.040*** (16.551)	0.040*** (16.579)	0.040*** (16.570)	0.040*** (16.612)	0.040*** (16.614)	0.040*** (16.629)	0.040*** (16.641)	0.040*** (16.623)	0.040*** (16.657)
<i>CVA</i>	0.118*** (12.004)	0.118*** (12.000)	0.118*** (11.996)	0.117*** (11.904)	0.117*** (11.943)	0.117*** (11.871)	0.117*** (11.917)	0.118*** (11.962)	0.117*** (11.873)
<i>ROA</i>	-0.560*** (-30.116)	-0.560*** (-30.113)	-0.560*** (-30.126)	-0.559*** (-30.078)	-0.559*** (-30.077)	-0.559*** (-30.082)	-0.559*** (-30.074)	-0.559*** (-30.071)	-0.559*** (-30.079)
<i>TOB</i>	0.005*** (3.093)	0.005*** (3.091)	0.005*** (3.090)	0.005*** (3.104)	0.005*** (3.103)	0.005*** (3.095)	0.005*** (3.101)	0.005*** (3.097)	0.005*** (3.091)
Group	0.012*** (2.795)	0.012*** (2.985)	0.012*** (3.082)	0.012*** (2.777)	0.012*** (2.764)	0.011*** (2.756)	0.012*** (2.942)	0.012*** (2.945)	0.012*** (2.895)
<i>INDU</i>	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
<i>YEAR</i>	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
<i>Within R<sup>2</sup></i>	0.1444	0.1445	0.1445	0.1449	0.1450	0.1450	0.1450	0.1448	0.1453
<i>Wald value</i>	1822.53***	1822.11***	1822.15***	1825.03***	1825.68***	1826.58***	1824.62***	1824.08***	1827.79***

Note: the number in the ( ) represents z value; \*, \*\*, \*\*\* represent significant at the 10%, 5 % and 1 % level, respectively.

(7) According to your suggestion, to consider the impact of the crisis, we have conducted the regression analysis for the sample from the year 2004 to 2007 and the sample for the year 2008 to 2009. The regression results are present as follows. From

the regression results, we can see that the conclusions in the paper are supported in the two samples. Therefore, the crisis's impacts on the analysis are not significant.

**Table 4 Multiple Regression Analysis ( using the sample before crisis)**

Variable	LEV								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant	-1.230*** (-18.472)	-1.228*** (-18.408)	-1.233*** (-18.508)	-1.262*** (-18.858)	-1.253*** (-18.767)	-1.249*** (-18.736)	-1.256*** (-18.748)	-1.248*** (-18.676)	-1.245*** (-18.647)
LLAY	0.000* (1.748)			0.020*** (3.614)	0.029*** (3.669)	0.008** (2.403)			
SLAY		0.002* (1.750)					0.019*** (3.090)	0.028*** (3.245)	0.007* (1.931)
CHAIN			0.002 (0.676)						
MARLLAY				-0.003*** (-4.166)					
GOVLLAY					-0.003*** (-3.940)				
LAWLLAY						-0.001*** (-3.868)			
MARSLAY							-0.003*** (-3.835)		
GOVSLAY								-0.003*** (-3.665)	
LAWSLAY									-0.001*** (-3.674)
SIZE	0.077*** (26.061)	0.077*** (26.082)	0.077*** (26.063)	0.079*** (26.367)	0.078*** (26.283)	0.078*** (26.278)	0.078*** (26.346)	0.078*** (26.276)	0.078*** (26.269)
CVA	0.116*** (9.923)	0.116*** (9.932)	0.116*** (9.937)	0.112*** (9.579)	0.114*** (9.728)	0.112*** (9.564)	0.113*** (9.659)	0.114*** (9.779)	0.113*** (9.627)
ROA	-0.685*** (-30.724)	-0.686*** (-30.733)	-0.685*** (-30.748)	-0.682*** (-30.623)	-0.683*** (-30.671)	-0.683*** (-30.654)	-0.683*** (-30.634)	-0.684*** (-30.667)	-0.684*** (-30.664)
TOB	0.001 (0.368)	0.001 (0.382)	0.001 (0.356)	0.001 (0.371)	0.001 (0.366)	0.001 (0.329)	0.001 (0.407)	0.001 (0.391)	0.001 (0.363)
Group	0.011** (2.212)	0.011** (2.421)	0.010** (2.175)	0.010** (2.145)	0.010** (2.150)	0.010** (2.102)	0.011** (2.307)	0.011** (2.309)	0.011** (2.266)
INDU	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
YEAR	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
Within R <sup>2</sup>	0.2995	0.2996	0.2997	0.3014	0.3010	0.3001	0.3008	0.3006	0.2997
Wald value	2194.70***	2195.30***	2195.31***	2219.36***	2216.73***	2216.08***	2216.19***	2214.36***	2214.63***

Note: the number in the ( ) represents z value; \*, \*\*, \*\*\* represent significant at the 10%, 5% and 1% level, respectively. There are 4913 firm-year observations in the sample.

**Table 5 Multiple Regression Analysis ( using the sample in crisis)**

Variable	<i>LEV</i>								
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Constant	-1.047*** (-13.733)	-1.050*** (-13.772)	-1.044*** (-13.688)	-1.068*** (-13.950)	-1.058*** (-13.825)	-1.072*** (-14.030)	-1.070*** (-14.000)	-1.060*** (-13.883)	-1.072*** (-14.046)
<i>LLAY</i>	0.004* (1.766)			0.021*** (2.873)	0.021* (1.885)	0.014*** (3.157)			
<i>SLAY</i>		0.006* (1.737)					0.026*** (3.339)	0.028** (2.394)	0.017*** (3.616)
<i>CHAIN</i>			0.007 (1.338)						
<i>MARLLAY</i>				-0.002*** (-2.632)					
<i>GOVLLAY</i>					-0.002 (-1.610)				
<i>LAWLLAY</i>						-0.001*** (-3.447)			
<i>MARSLAY</i>							-0.002*** (-2.860)		
<i>GOVSLAY</i>								-0.002** (-1.963)	
<i>LAWSLAY</i>									-0.001*** (-3.467)
<i>SIZE</i>	0.067*** (20.195)	0.067*** (20.237)	0.068*** (20.452)	0.068*** (20.377)	0.068*** (20.263)	0.068*** (20.462)	0.068*** (20.438)	0.068*** (20.323)	0.068*** (20.494)
<i>CVA</i>	0.118*** (7.508)	0.118*** (7.488)	0.117*** (7.461)	0.115*** (7.335)	0.117*** (7.446)	0.115*** (7.307)	0.114*** (7.279)	0.117*** (7.423)	0.114*** (7.241)
<i>ROA</i>	-0.536*** (-19.566)	-0.535*** (-19.529)	-0.537*** (-19.663)	-0.535*** (-19.539)	-0.535*** (-19.526)	-0.536*** (-19.574)	-0.534*** (-19.520)	-0.534*** (-19.490)	-0.535*** (-19.559)
<i>TOB</i>	0.001 (0.528)	0.001 (0.531)	0.001 (0.466)	0.001 (0.576)	0.001 (0.560)	0.001 (0.601)	0.001 (0.531)	0.001 (0.533)	0.001 (0.551)
Group	0.004 (0.639)	0.004 (0.633)	0.009 (1.396)	0.005 (0.708)	0.004 (0.654)	0.005 (0.778)	0.004 (0.645)	0.004 (0.630)	0.005 (0.697)
<i>INDU</i>	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
<i>YEAR</i>	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
<i>Within R<sup>2</sup></i>	0.1948	0.1946	0.1970	0.1948	0.1942	0.1949	0.1953	0.1947	0.1950
<i>Wald value</i>	1207.01***	1209.18***	1207.85***	1216.34***	1209.57***	1224.23***	1221.00***	1214.43***	1227.18***

Note: the number in the ( ) represents z value; \*, \*\*, \*\*\* represent significant at the 10%, 5 % and 1 % level, respectively. There are 2816 firm-year observations in the sample.

(8) According to your suggestions, we correct some minor mistakes that the reviewer has pointed out. Thanks for the reviewer's advice.