

# HETEROGENEOUS DEBT FINANCING AND SHARE RETURN VOLATILITY

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## Abstract

*The debt financing of Chinese listed firms includes trade credit and bank credit. This study empirically investigates the impact of different debt financings on the share return volatility and examines whether there exists the heterogeneous corporate governance effect by two different debt financings. This study finds that trade credit debt financing decreases the risk of share return volatility. The trade-credit debt financing plays a good monitoring role in the investing behavior of firms and alleviates the agency conflict between shareholders and creditors. The bank credit debt financing increases the risk of share return volatility, indicating that the bank credit debt financing has difficulty playing a good monitoring role on the firm and deteriorates the agency conflict between shareholders and creditors. The finding provides a new analytical perspective for investigating investment and financing interaction*

**Keywords:** debt financing; share volatility; trade credit debt financing; bank credit debt financing; China

**JEL Classification:** G32, G21, M41

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## Appendix

**Table A1. Definition of Variables**

Name	Abbreviation	Definition
Share Risk	Beta	a beta of the firm's share (current year and previous year, i.e., last 60 months' data, based on weekly returns)
Trade Credit	Trade credit	(accounts payable + notes payable - prepaid accounts) / total liabilities
Bank Credit	Bank credit	(short-term loans + long-term loans + bonds payable + non-current liabilities due within one year) / total liabilities
Trade Credit Advantage	Trade credit dominance	trade credit - bank credit
Firm Size	Asset	natural logarithm of total assets
Finance Leverage	Leverage	total debts / total assets
Profitability	ROA	net income / total assets
Growth	Net income growth	the annual growth rate of profits
Institutional Shareholding Ratio	Institution	total institutional shareholding ratio
Share Turnover Rate	Turnover rate	annual turnover of share
Largest Shareholder	Largest shareholder	the shareholding ratio of the largest shareholder
Equity Concentration	Ownership concentration	percentage owned by top 10 shareholdings
Board Size	Board size	number of boards
Ratio of Tangible Assets	Tangible asset	fixed assets / total assets
Firm Age	Age	duration of being listed
Firm Value	Value	Ln (A-share market value)
Industry	Industry	Dummy variable
Year	Year	Dummy variable

**Table A2. Descriptive Statistics**

	Mean	Median	S.D.	Min	Max
Trade credit	0.257	0.227	0.225	-0.331	0.809
Bank credit	0.321	0.314	0.249	0.000	0.857
Beta	11.148	1.112	19.353	0.330	71.109
Asset	14.092	12.780	3.669	9.698	23.564
Leverage	43.162	42.455	20.739	5.332	93.593
ROA	8.300	6.864	8.326	-14.310	39.128
Net income growth	19.166	12.608	66.486	-382.000	245.809
Institution	37.800	38.159	23.979	0.000	90.356
Turnover rate	891.979	740.531	591.122	125.029	2952.640
Largest shareholder	35.582	33.340	15.893	0.290	82.361
Ownership concentration	59.586	60.670	15.893	22.140	98.065
Board size	7.042	9.000	3.621	1.000	18.000
Tangible asset	44.417	46.021	92.887	-13.027	91.334
Age	5.182	3.000	8.606	-10.000	28.000
Value	14.720	13.498	3.561	12.364	23.869

Note: All variables as previously defined.

**Table A3. Pearson Correlation**

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1 Trade credit	1.000														
2 Bank credit	-0.411*	1.000													
3 Beta	-0.056*	0.092*	1.000												
4 Asset	-0.068*	0.079*	0.078*	1.000											
5 Leverage	-0.103*	0.396*	0.146*	0.161*	1.000										
6 ROA	0.044*	-0.206*	-0.15*	-0.056*	-0.249*	1.000									
7 Net income growth	0.011	-0.090*	-0.056*	-0.029*	-0.134*	0.276*	1.000								
8 Institution	-0.081*	0.089*	-0.036*	0.121*	0.237*	0.045*	-0.142*	1.000							
9 Turnover rate	0.089*	-0.052*	0.059*	-0.072*	-0.124*	-0.023*	0.068*	-0.247*	1.000						
10 Largest shareholder	0.036*	-0.007	0.054*	0.094*	0.053*	0.155*	-0.012	0.306*	0.019	1.000					
11 Ownership concentration	0.114*	-0.108*	-0.044*	0.034*	-0.145*	0.277*	0.204*	0.224*	0.064*	0.612*	1.000				
12 Board size	-0.070*	0.102*	0.024	0.087*	0.007	-0.340*	-0.062*	0.198*	-0.110*	-0.067*	-0.013	1.000			
13 Tangible asset	0.054*	-0.078*	0.017	-0.028*	-0.249*	0.077*	0.023*	-0.076*	0.038*	0.013	0.054*	-0.012	1.000		
14 Age	-0.173*	0.145*	0.058*	0.069*	0.223*	-0.421*	-0.244*	0.348*	-0.257*	-0.143*	-0.415*	0.621*	-0.081*	1.000	
15 Value	-0.013	0.008	-0.005	0.305*	0.018	0.027*	-0.003	0.043*	-0.022*	0.065*	0.049*	0.060*	-0.003	-0.009	1.000

Note: \* indicates significance at the 10% level. All variables as previously defined.