

Research on the Fiscal Treatment Effects of Debt Financing in Retail Industry

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Abstract. The retail industry in our country relies on current debt excessively for a long time, and the bank loan is its main financing channels at all time. At the same time, the bond financing is highlighted. Some financing way are main financing ways for retail industry in our country. For example, issuing financing invoice or convertible bonds and so on. But the creditors do not fully present the status and the role in company management. The structure of debt source and the structure of debt term are not reasonable, and the positive fiscal treatment effects of debt financing do not work fully in public companies in retail industry. We make a practical research on the fiscal treatment effects of debt financing of public companies in retail industry and reveal the problems through updated fiscal data of public companies in retail industry in the paper.

The problems resolved by the financing policy are the problems of capital source during the process of enterprise operation. It is the most critical content in fiscal activity of contemporary enterprise. Debt financing is the important fiscal decision for enterprise. We reveal the reasons that fiscal treatment of debt financing in retail industry which have not obvious effects by following example analysis in this paper.

The Design of Example Research

The Choice of Sample. We chooses the fiscal data during 2005-2014 as research sample in this paper, which are the fiscal data of public companies in The shares retail industry listed at Shenzhen or Shanghai. We eliminate the public companies like ST,*ST, S*ST. The data used in this paper are from Xenophon database. We use the statistical software of Excel2007 and SPSS17.0 of Microsoft to get the following data processing and data statistics.

The Choice of Variables.

Type		Symbol	Name	Variable definition
dependent variable	company value	ROA	yield rate of total assets	total gains÷total assets
	debt term	SD	debt rate in short-term	short-term debts/ total assets
LD		debt rate in long-term	long-term debts/ total assets	
independent variable	debt source	CD	the rate of commercial credit	(accounts payable+deposit received+notes payable)/total debts
		BD	the rate of bank loan	(short-term loans+long-term loans)/total debts
		BOD	proportion of enterprise bond	bonds payable/long-term loans
	capital structure	DER	proportion of property right	total debts/total owns equity

The Assumptions of Research. Assumption one: The debt financing in public companies in retail industry does not play its role efficiently in fiscal treatment. One of reasons is that the structure of debt term is not reasonable.

Assumption two: The debt financing in public companies in retail industry does not play its role efficiently in fiscal treatment. One of reasons is that the structure of debt source is not reasonable.

The Model Building. According to the analysis above, we establish regression model below to inspect the fiscal treatment effects of debt financing in public companies in retail industry, $ROA = \beta_0 + \beta_1 SD_i + \beta_2 LD_i + \beta_3 CD_i + \beta_4 BD_i + \beta_5 BOD_i + \beta_6 DER_i + \epsilon_i (i=1, 2, 3 \dots 14;)$. β_0 in this model represents constant term, and i represents company, and ϵ_i is random disturbance term.

The Analysis of the Result of Example Research

Descriptive Analysis. The Structure of Debt Term. The contents in the table below are the structure of debt term of normal public companies in public company of retail industry during 2005-2014.

Descriptive statistics

	N	Minimum value	Maximum value	Mean value	Standard deviation	Variance
LD	667	.1449860	.8407010	.514329114	.1601034913	.026
SD	667	.0000000000	.3415300000	.0525460704	.0734538374	.005
Effective N (list state)	667	000140	000000	64777	48403	

We can find several points from the table above, and the mean value of long-term debt proportion is higher than the mean value of short-term debt proportion apparently. The minimum value of short-term debt proportion almost is zero. The term structure of debt financing in certain companies tends to the way of long-term financing. We can also find that the fluctuations of standard deviation of both LD and SD are steady.

The Structure of Debt Source. The contents in the table below are the structure of debt source in public companies in retail industry during 2005-2014.

Descriptive statistics a

The year	N	Mean value	Standard deviation	Variance	Measure of skewness	
	Statistics	Statistics	Statistics	Statistics	Statistics	Standard error
2004 CD	57	.3808697356	.19741362337	.039	.529	.316
BD	57	.4444180186141	.23058459716051	.053	-.130	.316
BOD	57	.228070175483224	.423317841540784	.179	1.331	.316
Efficient N(list state)	57					
2005 CD	59	.4073566458	.20478308455	.042	.269	.311
BD	59	.3932864130848	.22905691831325	.052	.023	.311
BOD	59	.254237288150851	.439169291792576	.193	1.158	.311
Efficient N(list state)	59					
2006 CD	58	.4273322813	.22086989834	.049	.246	.314
BD	58	.3776660147414	.24257322351473	.059	-.043	.314
BOD	58	.155172413809926	.365231199921059	.133	1.956	.314

Efficient N (list state)	58					
2007 CD	58	.4558289513	.21942773833	.048	.119	.314
BD	58	.3318649328966	.23364455184827	.055	.289	.314
BOD	58	.112994352552725	.312489303773605	.098	2.501	.314
Efficient N (list state)	58					
2008 CD	62	.4899705219	.24731134462	.061	.074	.304
BD	62	.3032808642420	.23462118420514	.055	.347	.304
BOD	62	.112903225846931	.319057973528223	.102	2.507	.304
Efficient N (list state)	62					
2009 CD	65	.5278200744	.24851881138	.062	-.061	.297
BD	65	.2725995559847	.25061440540543	.063	.595	.297
BOD	65	.137824564917068	.335727547408245	.113	2.125	.297
Efficient N (list state)	65					
2010 CD	70	.5558554523	.24522650865	.060	-.234	.287
BD	70	.2639189455901	.24749834451276	.061	.759	.287
BOD	70	.134163499754126	.336138964200144	.113	2.180	.287
Efficient N (list state)	70					
2011 CD	77	.5493610869	.23917354324	.057	-.199	.274
BD	77	.2390708776754	.23324818695128	.054	.734	.274
BOD	77	.095806323004063	.289727592099953	.084	2.798	.274
Efficient N (list state)	77					
2012 CD	80	.5401990855	.24219427998	.059	-.083	.269
BD	80	.2446240150875	.23566821816699	.056	.589	.269
BOD	80	.070989044738254	.224439956944661	.050	3.106	.269
Efficient N (list state)	80					
2013 CD	81	.5233900565	.24099440538	.058	.004	.267
BD	81	.2350184592840	.22450508556262	.050	.528	.267
BOD	81	.165676928529634	.321582086931768	.103	1.671	.267
Efficient N (list state)	81					

We can find several points from the table above, and the structures of debt source in public companies in retail industry are more likely to choose the loan of commercial credit and bank loan. In the comparison, the mean value of enterprise bond proportion is lower, because the bond market in our country is not still complete, we have the serious limitation for the issuing scale, and the issuing request is higher. Analyzing from the distribution of measure of skewness, the most part distributes on the left of the mean value with skewness.

Regression Analysis.

Model gather^b

Model	R	R square	Adjusted R square	Standard estimated error	Durbin-Watson
1	.467 ^a	.218	.212	.0468725396434	1.929

a. Predictive variable: (constant), DER, CD, BOD, SD, BD.

b. Dependent variable: ROA

Anova^b

Model		Quadratic sum	df	Mean square	F	Sig.
1	Regression	.404	5	.081	36.807	.000 ^a
	Residual	1.452	661	.002		
	Aggregate	1.857	666			

a. Predictive variable: (constant), DER, CD, BOD, SD, BD.

b. Dependent variable: ROA

Coefficient^a

Model	Nonstandardized coefficient		Standardized coefficient	t	Sig.	Dependency			Collinearity statistics	
	B	Standardized error	Trail version			Zero-ord	Deflecti on	Portio n	Toleran ce	VIF
1 (constant)	.080	.011		6.972	.000					
SD	-.062	.013	-.188	-4.627	.000	-.258	-.177	-.159	.715	1.399
CD	.039	.015	.176	2.592	.010	.321	.100	.089	.256	3.899
BD	-.042	.015	-.195	-2.884	.004	-.360	-.111	-.099	.258	3.869
BOD	-.010	.005	-.062	-1.779	.076	.001	-.069	-.061	.971	1.030
DER	-.004	.001	-.162	-4.098	.000	-.262	-.157	-.141	.761	1.314

a. Dependent variable: ROA

We can find several points from the tables above, the random distribution splashes of equation of linear regression is 1.929, and the sum of squares of deviations is 1.857, and the residual sum of squares is 1.452, and regression coefficient is 0.404. In the significance testing of regression equation, statistics F is 36.807, and the corresponding confidence level is 0.000. It is less 0.05 than the confidence level common used obviously. Therefore, this equation is significant. We can find

from the dependency that the coefficients of association of all this variable are not zero at all, and those are relevant, and it effects the fiscal treatment of company. Inspecting by T the significance of coefficient, the result indicates that analyzing from the term structure of debt financing, the confidence levels of short-term debt proportion are less than 0.05 at all, and the coefficient is significant. The confidence levels of long-term debt proportion is higher. It has been deleted, and the coefficient is not more significant. We can learn from descriptive statistics that long-term debt proportion is higher than short-term debt proportion. But analyzing from the regression result analysis of debt term structure, the effects of short-term debt in company's fiscal treatment are better than long-term debt. So that it verifies the assumption one. Analyzing from the structure of debt financing source, the confidence level of enterprise bond proportion is 0.076, and it is larger than the 0.05 common used. It is likely to be related to the non-complete of the bond market in our country. We can find from the table that the confidence level of commercial credit rate and bank borrowing rate are less than 0.05 at all. Therefore, these coefficient are significant. And the confidence level of bank borrowing rate is 0.04, and it is less than the 0.010 of the confidence level of commercial credit rate. It indicates that bank borrowing rate has better effects in company's fiscal treatment. But we can learn from the descriptive analysis of earlier structure of debt source that the commercial credit rate of public companies in retail industry is higher than the bank borrowing rate, and it is namely that adopting the way of commercial credit to conduct debt financing. But analyzing from the regression result of the structure of debt source, the effects of bank loan in company's fiscal treatment are better than commercial credit. Therefore, it verifies the assumption two.

Conclusion

In the model of this article, all of sort-term rate, long-term rate, commercial credit rate, bank borrowing rate, enterprise bond proportion, property right proportion are closely related to the effects of company's fiscal treatment. We find from the structure of debt term that short-term debt is less than long-term debt. We get the relative conclusion from regression result, and the short-term debt has better effects in company's fiscal treatment. Enterprise tends to borrow long-term debt for decreasing repayment pressure. It deviated from the aim that balanced arranging short-term debt, medium-term debt and long-term debt in the structure of debt term, and remaining proper proportion to them, to adapt to the different capital request in production and management. Analyzing from the structure of debt source, the commercial credit rate is larger than bank borrowing rate, but according to the analysis of regression result, we find that bank loan has better effects in company's fiscal treatment, and the independence of stakeholders involved in commercial credit is the worst. Ultimately, enterprise's fiscal treatment effects is not shown fully because we do not have good supervision to enterprise. The confidence level of enterprise bond proportion is 0.076, and it is larger than 0.05 common used. It indicates that fiscal treatment effects of enterprise bond is not more significant. The company which takes issuing enterprise bond as debt financing channel gets less at present. The bond market is still not complete at present, and it needs more development. To sum up the descriptions above, debt financing of public companies in retail industry at present does not let enterprise's fiscal treatment effects fully play its role.

References

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