

Research of Institutional Environment, Enterprise Market Position and Commercial Credit

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Abstract. This paper explores the changes in institutional environment and corporate market position, and how the differences in institutional environment and market position will affect commercial credit. Based on this, this paper selects the listed companies traded in Shanghai and Shenzhen Stock Exchange in 2013-2016 as a sample for empirical analysis. The results show that the higher the market position, the more commercial credits are available and provided; the institutional environment is better and market-oriented. In areas with high levels, it is easier to obtain commercial credit. Finally, according to the research conclusions, corresponding countermeasures are proposed.

1. Introduction

The market competition has become increasingly fierce, the credit system has been gradually established. Commercial credit solves the problem of capital flow by purchasing from suppliers or pre-collecting payment from cooperative enterprises, and the cost is not high, so it is often used as a competitive means of operating investment. According to the experience of developed countries such as the United States and Germany, the importance of commercial credit is even comparable to bank credit. Therefore, the study of the factors affecting commercial credit is particularly important for the improvement and development of commercial credit.

Yu-xiang Zhao (2008) concluded that the scale is the signal that enterprises obtain commercial credit, and the larger the enterprises, the more they can conduct commercial credit financing [1]. The size of the enterprise is closely related to the market position of the enterprise. Therefore, the market position of the enterprise has a significant impact on commercial credit. China is still in the emerging market economy countries in the transition period, and the institutional environment has a great impact on corporate commercial credit. In this paper, considering the control variables, we will explore how the impact on commercial credit will be achieved by establishing a model. After inspection and analysis, it is easier for enterprises to obtain and provide commercial credit in areas with good institutional environment and high degree of marketization and less government intervention.

2. Assumptions

2.1. Enterprise Market Position and Commercial Credit

Dan Qi and Yan Luo (2011) believe that enterprises with higher market positions are more likely to obtain commercial credit financing and bank loan financing. Therefore, the substitution between the two is stronger. The financing difficulties of small and medium-sized enterprises with low market position will definitely affect the development of small and medium-sized enterprises [2]. Therefore, he believes that promoting private capital to enter the market is conducive to the development of SMEs, providing more opportunities for SMEs to obtain commercial credit. Commercial credit can significantly reduce the company's borrowing costs, while delivering to the market information that the company is doing well. Therefore, enterprises with higher market positions also use commercial credit as a means of competition. Companies with higher market positions can obtain more commercial credit from suppliers than those with lower market positions.

In summary, the first hypothesis is proposed:

H1: Under the premise that other conditions are basically the same, the higher the market position, the more commercial credits are available, and the two are basically positively correlated.

2.2. Institutional Environment and Commercial Credit

Contract theory believes that the institutional environment has an important impact on the investment and financing decisions of enterprises. Lin-hong Li (2017) found that under the same conditions, enterprises in regions with better institutional environment have more commercial credit financing than those with more government economic interventions [3]. Xi-zheng Zhang and Ting Qin (2017) show that in the case of expected inflation, companies with higher market positions can see changes more quickly, so as much as possible Acquired more commercial credit than usual [4]. In general, enterprises with better legal environment, regional government intervention in the economy and higher marketization are more likely to accumulate commercial credit and use commercial credit for financing activities and business activities. Therefore, the hypothesis is proposed:

H2: Areas with better institutional environment are more likely to obtain and provide commercial credit;

H3: Moreover, under the conditions of less local government intervention and higher marketization, the industry monopoly is less, and the market position of the enterprise has less impact on commercial credit.

3. Research Design

3.1. Data Source

This paper selects the 2013-2016 Shanghai-Shenzhen A-share listed companies as research samples, and the data are from the Guotai An CSMAR database. Excluding invalid samples when selecting data finally resulted in a total of 9,607 valid sample points for 2,764 listed companies.

3.2. Definition of Related Variables

In this paper, the proportion of accounts payable (AP) and accounts receivable (AR) in total assets is taken as the explanatory variable, the enterprise market position (MR) is taken as the explanatory variable, and the annual operating income of the enterprise accounts for the total annual of the industry. According to the proportion of operating income, when the market share of the enterprise in that year is greater than the median market share of the enterprises in the industry in which it is located, the value of MP is taken as 1, indicating that it has a higher market position, and vice versa. Take 0, indicating that it is in a lower market position. Regulatory variables include the institutional environment (MAR) and the intersection of market position and institutional environment (MP*MAR), where the institutional environment is measured by the Fan Gang marketization index; the control variables include the size of the firm (SIZE, the natural logarithm of the total assets at the end of the period), asset-liability ratio (LEV), cash position (CASH, ratio of monetary funds to total assets), profitability (ROE, ROE), years (YEAR) dummy variables, and industry (INDUS) dummy variables.

3.3. Research Model Design Model

Based on hypothesis 1, the higher the market position, the more commercial credit can be obtained and provided under the premise of the same other conditions, and the two have a positive correlation.

$$TC1 = \alpha_0 + \alpha_1 MP_t + \alpha_2 SIZE_t + \alpha_3 ROE_t + \alpha_4 CASH_t + \alpha_5 LEV_t + \varepsilon$$

Model two: based on hypothesis 2 and hypothesis 3, it is easier to obtain and provide commercial credit in areas with better institutional environment; Moreover, under the condition that the local government intervention is less and the degree of marketization is higher, the monopoly of

enterprise industry is less, and the influence of enterprise market position on commercial credit is less.

$$TC2 = \alpha_0 + \alpha_1 MP_t + \alpha_2 MAR_t + \alpha_3 MP_t \cdot MAR_t + \alpha_4 SIZE_t + \alpha_5 ROE_t + \alpha_6 CASH_t + \alpha_7 LEV_t + \varepsilon$$

4. Empirical Analysis

4.1. Descriptive Analysis

Make descriptive statistics of all variables, and the results are as Table 1:

Table 1. Descriptive tables

variable	N	mean value	standard deviation	minimum	maximum
AP	9607	0.166	0.121	0.00669	0.560
AR	9607	0.182	0.127	0.161	0.00374
MP	9607	0.502	0.500	0	1
MAR	9607	8.114	1.747	2.950	9.950
SIZE	9607	21.99	1.172	19.72	25.42
LEV	9607	0.418	0.211	0.0509	0.900
CASH	9607	0.214	0.157	0.0160	0.720
ROE	9607	0.0690	0.105	-0.459	0.342

By observing Table 1, we can see that the average value of (AP) in total assets is 0.166, and the average value of (AR) in total assets is 0.182. It shows that the proportion of total assets due and receivable of listed companies in China is low, that is to say, the acquisition of commercial credit and the provision of external credit are not satisfactory. The average value of (MAR) in institutional environment is 8.114, the overall process of marketization is relatively good, and the standard deviation is 1.747, which indicates that the level of marketization varies greatly among provinces and cities. The average value of asset-liability ratio (LEV) is 0.418, which indicates the total liabilities of listed companies in China. The level is on the high side. The average cash position of (CASH) is 0.214, which indicates that the proportion of monetary funds in total assets is more adequate, that is to say, the cash position of listed companies in China is relatively good as a whole. The average (ROE) of ROE is 0.0690, which indicates that the overall profitability of listed companies in China is not ideal.

4.2. Correlation Analysis

1. Acquisition of Commercial Credit

Table 2. Relevance to AP

	AP	MP	MAR	SIZE	LEV	CASH	ROE
AP	1						
MP	0.256***	1					
MAR	0.050***	-0.027***	1				
SIZE	0.218***	0.605***	-0.064***	1			
LEV	0.445***	0.373***	-0.126***	0.531***	1		
CASH	-0.139***	-0.218***	0.124***	-0.278***	-0.407***	1	
ROE	0.052***	0.036***	0.136***	0.086***	-0.172***	0.132***	1

*, * refers to the significant levels of 0.05 and 0.1, respectively.

It can be seen from Table 2 that the correlation coefficient between market position (MP) and payable (AP) is 0.256, which shows that the higher the market position, the more commercial credit can be obtained. This is in line with hypothesis 1. The correlation coefficient between (MAR) and

(AP) is 0.050. The positive correlation at 0.01 level indicates that the better the institutional environment (the higher the degree of marketization), the more commercial credit enterprises can obtain, which conforms to hypothesis 2. The correlation coefficient between enterprise size (SIZE) and payable (AP) was 0.218, which was significantly positive correlation at the level of 0.01; The correlation coefficient between ROE (ROE) and payable (AP) is 0.052, which is significantly positive at 0.01 level. This shows that the larger the size of the enterprise, the better the return on net assets and the more commercial credit it can obtain.

4.3. Regression Analysis.

Regression analysis of the model, this paper uses the least square regression model, adding industry and years of virtual variables to regression. The results are as Table 3:

Table 3. Regression analysis table

	(1)	(2)	(3)	(4)	(5)	(6)
	m1	m2	m3	m4	m5	m6
VARIABLES	AP	AP	AP	AR	AR	AR
MP	0.0437*** (16.03)	0.0430*** (15.80)	0.0560*** (5.706)	0.0243*** (7.721)	0.0230*** (7.332)	0.00791 (0.699)
MAR		0.00353*** (5.746)	0.00433*** (5.126)		0.00695*** (9.809)	0.00602*** (6.179)
MAR*MP			-0.00159** (-2.381)			-0.00184** (-2.388)
SIZE	-0.0157*** (-11.88)	-0.0154*** (-11.65)	-0.0155*** (-11.71)	-0.0252*** (-16.54)	-0.0246*** (-16.21)	-0.0245*** (-16.11)
LEV	0.258*** (39.44)	0.260*** (39.79)	0.260*** (39.79)	0.0769*** (10.16)	0.0817*** (10.82)	0.0817*** (10.83)
CASH	0.0129* (1.690)	0.00965 (1.267)	0.00963 (1.264)	-0.117*** (-13.27)	-0.123*** (-14.02)	-0.123*** (-14.02)
ROE	0.141*** (13.75)	0.135*** (13.20)	0.136*** (13.23)	0.146*** (12.35)	0.136*** (11.48)	0.135*** (11.44)
Constant	0.286*** (10.18)	0.258*** (9.052)	0.254*** (8.852)	0.597*** (18.37)	0.542*** (16.48)	0.547*** (16.54)
Industry	control	control	control	control	control	control
Year						
Observations	9,607	9,607	9,607	9,607	9,607	9,607
R-squared	control	control	control	control	control	control
F value	193.80*** 0.327	187.99*** 0.329	180.85*** 0.329	88.17*** 0.181	89.33*** 0.189	85.98*** 0.189

Note: The T value is reported in parentheses, and **, **, and * refer to the significance levels of 0.01, 0.05, and 0.1, respectively.

4.3.1. Relationship between Market Position and Commercial Credit

The market position (MP) coefficient is 0.0437, which is significantly positively correlated with the payable (AP) at the level of 0.01, indicating that the higher the market position of the enterprise, the greater the proportion of payable (AP) in total assets, that is, commercial credit. The more you get, the easier it is to get commercial credit financing. Another coefficient of market position (MP) is 0.0243, which is significantly positively correlated with the receivables (AR) at the level of 0.01, it shows that the higher the market position, the more willing and willing to provide commercial credit, which is basically in line with the expectations of Hypothesis 1. Hypothesis 1 is proved.

4.3.2. The Relationship between Institutional Environment and Commercial Credit

The institutional environment (MAR) has a coefficient of 0.00353, which is significantly positively correlated with the payable (AP) at the level of 0.01; the other coefficient is 0.00695, which is significantly positively correlated with the receivable (AR) at the level of 0.01, indicating The better the institutional environment, the less government intervention, the more orderly market and the better the marketization process, the more commercial credits companies can obtain and provide, which is consistent with Hypothesis 2.

4.3.3. The Relationship between Institutional Environment, Corporate Market Position and Commercial Credit

The coefficient of the interaction between the institutional environment and the market position (MAR*MP) is -0.00159, which is negatively correlated with the accounts payable (AP) at the level of 0.05; the other coefficient is -0.00184, and the accounts receivable (AR) The negative correlation at the level of 0.05 indicates that the better the institutional environment, the higher the degree of marketization, the less government intervention, and the less monopolization in the industry, which is conducive to the development and competition of enterprises in a relatively good environment. The smaller the impact on the acquisition and external supply of commercial credit. Basically, it conforms to Hypothesis 3.

In summary, the above regression analysis results basically conform to the assumptions.

In addition, in order to test the robustness of the results, this paper uses Xiao-jun Shi (2009) method - the ratio of accounts payable to total assets as a commercial credit index (TC) instead of the original results to re-regress, by measuring the measurement of the commercial credit index of the dependent variable In the way, the robustness test found that the results did not change greatly, which finally proved that the hypothesis of this paper is basically established.

5. Conclusions and Recommendations

5.1. Conclusion

Based on Fan Gang's marketization index, this paper finds that when other conditions are basically the same, enterprises with higher market position are more likely to obtain commercial credit, and the stronger the ability to provide external commercial credit, the more they can provide. In areas with a good institutional environment and a high degree of marketization and less government intervention, enterprises are more likely to obtain and provide commercial credit; in the case of a better legal environment and a higher degree of marketization, there is a possibility of monopolization of the market position of the industry. Small, the reliance of enterprises on the inherent market position is also small, so the market position of the enterprise has less influence on its commercial credit, and theoretically it is more favorable to SMEs.

5.2. Suggestions

First, The legal system should be improved, the behavior of non-commercial credit should be severely punished. In addition, the government and relevant associations correctly guide and regulate enterprises to conduct commercial credit activities. At the same time, provide support measures and legal guarantees for small and medium-sized enterprises with low market status, or formulate preferential policies. Second, it is especially important to promote the marketization process. Coordinate the relationship between the government and the market, combine macroeconomic regulation with the market economy, and promote the development and utilization of commercial credit in fully and effectively market competition. Third, we must improve the market position of enterprises. Constantly accelerating the pace of upgrading its own strength, continuously adjusting strategic planning according to internal and external environment, improving the market position of enterprises in the industry, enhancing their own strength and competitiveness, is the most important way to enhance their commercial credit competitiveness.

6. References

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