2014

ISSN : 0974 - 7435 Volume 10 Issue 8

BioTechnology

An Indian Journal

FULL PAPER

BTAIJ, 10(8), 2014 [2460-2466]

Can financial leasing really ease financial constraint? --Evidence from China's A-share listed companies

Jian Jianhui[1]*, Shiyong Zhao[2]
[1]School of business and management, NCEPU, Beijing, (CHINA)
[2]A408, Macau University of Science and Technology, Avenida Wai Long, Taipa, Macau, (CHINA)
E-mail : jianjianhui@ncepu.edu.cn; syzhao@must.edu.mo

ABSTRACT

Financial leasing, which rose in the United States and gradually swept the world, has become second largest financing channel in developed country, and its development in China also has received more and more concern. However, can financial leasing really ease financing constraints in China? This paper establishes a theoretical framework about financial leasing motivation, and research the intrinsic link between corporate financial leasing decision and financing constraints. Empirical results show that: financial leasing did not play a role in easing financing constraints in China, and imperfection of a series of institutional arrangements restricts further development of financial leasing in China.

KEYWORDS

Financial leasing; Financing constraints; Financial covenants.

INTRODUCTION

Financial leasing of capital assets is a common and wide-spread means through which firms acquire access to plant and equipment. Financial leasing is a technique of investment financing, which experienced a strong development after the Second World War. This activity was transformed into a true specialized financial service, with the creation in 1952 of the first independent financial leasing company in the United States. The practice then gained Europe and Japan in the Sixties. Nowadays, in the States of the OECD, up to a second private investment are financed by financial leasing. As an innovative form of financing, what are driving factors behind its developing very rapidly from scratch in the world, and what are the economic consequences its development has brought about?

In capital market, adverse selection and moral hazard caused by information asymmetry increase the transaction costs. These capital market imperfections make the cost of external finance and internal finance companies different, and the cost difference has resulted in corporate financing constraints. In the case of asymmetric information, financing constraints affect investment behavior of enterprises significantly, which determines the scale, direction and return of investment of companies. In the presence of transaction costs and asymmetric information, financial reports of poor quality, high debt to equity ratio, with high fixed capital investment, the existence of financing constraints cause companies more inclined to adopt financial leasing[1]. For large companies, financial leasing generally has positive correlation with their profitability, financial leverage ratios and the tax rate; but for small companies financial leasing decisions depend on their growth opportunities, and less profitable small companies with higher Tobin's q will be more inclined to adopt financial leasing[2]. Gavazza[3] found that transaction costs reduce the efficiency of capital allocation. The lessor as trading intermediaries reduce transaction costs because financial leasing has not transferred ownership, which can effectively reduce adverse selection and moral hazard due to asymmetric information, so both capital supply and demand sides can achieve a Pareto improvement. Financial leasing plays an important role in solving the capital market imperfections caused by financing constraints, especially for small and medium enterprises[4,5].

Meanwhile, in China, in addition to the expansion of financing channels, optimization the market structure, promoting the upgrading of equipment, financial leasing is a effective method for solving the SME financing difficulty[6]. However, empirical findings based on developed countries may not apply to “emerging” plus “transition” special institutional background of China. Empirical analysis on financial leasing in China is still few: Zhan Junhua[7] found that for A-share listed companies, there is no significant correlation of financial leasing decision and companies profitability. Lai Mingmin[8] found that the nominal corporate income tax had a significant impact on corporate financial leasing decisions, and growth opportunities did not affect the corporate financial leasing decisions. However, these few studies did not address the impact of financing constraint variables on corporate financial leasing decision in China.

In view of this, this paper, using 2010-2012 China's A-share listed companies as the study sample, research financial leasing motivation. We find that the use of financial leasing of companies in China has a significant positive correlation with the size of enterprises, enterprise mortgage values, and degree of ownership concentration. Accordingly, we conclude that in China financial leasing did not play a role in easing financing constraints adequately.

The following sections of this paper are as follows: The second part, based on the China special institutional background, analyze the relationship of financial leasing and financing constraints, and ownership structures, and then raise research hypotheses; the third part is to build research models for empirical studies and define related variables in models; the fourth part is the empirical results and analysis, and the final part is the conclusion.

THEORETICAL ANALYSIS AND THE PROPOSAL OF ASSUMPTION

A. financial leasing and financing constraints

Financing constraint is an important factor that affect corporate financial policy, and corporate under financial constraint often rely on the internal cash flow[9]. The internal cash flow depends on the performance of the company, and in making financing decisions; performance is already a historical data which is difficult to change. However, financial leasing focuses on the future cash flows rather than historical performance. The dual property of financial leasing, to a certain extent reduce the information asymmetry problem. Thus for companies under financing constraint, financial leasing is more feasible. Slotty[10] found that in Germany the presence of agency costs, the total annual leasing expenses in companies under strong financing constraint and small-scale high-growth companies are higher than others.

However, these conclusions are not based on China, which has special economic institution: “transition” plus “emerging”, and do not take into account the impact on financial activities of different institutional arrangements. Political relations and government intervention in business make business’s debt financing soft budget constraint. Li Kai and Ye Jianfang[11] found that China's commercial banks are under strong government intervention, which make companies controlled by local state-owned enterprises get more long-term loans. For state-owned banks, lending to private enterprises will take some “political risk”. Similarly, political intervention is also very likely to have a significant impact on corporate financial leasing, resulting in favoring the large state-owned enterprises.

In China, the development of financial leasing has significant particularity. To attract foreign investment as a form of financing, government encouraged foreign leasing companies to carry out financial leasing business in China, which is the start of financial leasing business in China. Subsequently, China began to promote the development of domestic financial leasing companies, and a number of financial leasing companies with banking background arose, in China main financial leasing business is operated by financial leasing companies with banking background. Meanwhile, the majority of China's financial leasing companies without banking background can’t choose equity financing and are difficult to issue bonds, so the main capital source of those is bank loans, resulting in very high debt ratio. Therefore, in China the bank may have a significant impact on the financial leasing company's business with or without banking background. Presently as lessee enterprises in China involved in financial leasing business mainly are the central or local state-owned enterprises, and the lessors of financial leasing business are mostly state-owned banking background financial leasing companies. Consequently, financial leasing is likely to become “shadow banking”. The reason for the prevalence of financial leasing in developed countries is its property of “bankruptcy is applied to leasing asset”, as a safe mode of financing, namely when lessee faces operational difficulties or even bankruptcy, the lessor can claim back asset prior to creditors. But in China, underdeveloped secondary market made financial leasing equipment to depreciate significantly, which plays a negative role in relaxing requirements of lessees and control risks. Thus, according to the previous analysis, this paper proposes the assumption 1:

H1: in China financial leasing did not ease financing constraints effectively.

B. financial leasing and ownership structure

In the agency cost theory, property rights will affect the effect of management incentives and supervision efficiency of shareholders[12]. Smith and Wakeman[13] proposed the theory of financial covenants, and found that financial covenants are an important motivation of corporate financial leasing. In dispersed ownership companies, the manager may choose to reduce debt financing to reduce the risk of bankruptcy. However, when managers have many shares, both as the principal and the agent, they may use debt financing to consolidate their control of the company. As equity financing will dilute their shares, executives with more shares prefer debt financing. Mao and Zalaski[14] found that executives with many company shares tend to choose financial leasing. Financial leasing has characteristics of debt financing, which will not dilute the shares of the company. The rent can be paid in installments of cash outflows, synchronizing with cash inflows to reduce the risk of bankruptcy. In addition, as a new type of financing, the level of market acceptance is still relatively low. In dispersed ownership companies, corporate control by individual shareholders is not strong, which cause companies to carry out the innovative financing more difficult. Thus, according to the previous analysis, this paper proposes the assumption 2:

H2: the use of financial leasing is negatively correlated with the degree of dispersed ownership.

RESEARCH DESIGN

A. Model setting

This paper can use model 1, 2 to study the influence of financing constraint, ownership structure on financial leasing respectively:

$$leasing = \partial_0 + \partial_1 size + \partial_2 market + \partial_3 growth + \partial_4 ultimate + \partial_i \sum control\ variables + \varepsilon_i \quad \ldots\ldots \text{model 1}$$

$$leasing = \partial_0 + \partial_1 ownership + \partial_i \sum control\ variables + \varepsilon_i \quad \ldots\ldots \text{model 2}$$

In the empirical study of financing constraints, its proxy measure is difficult and key. Fazzari, Hubbard and Petersen[15] used the dividend payout ratio as the measure of corporate financing constraints. The value of the capital stock, company size, corporate ownership structure, the company bond rating and KZ index (Kaplan and Zinglales Index) also are the measure variable of the degree of financing constraint. However, dividends paid by Chinese enterprises are discontinuous and often in order to meet the requirements of capital market, unlike dividends paid by developed capital markets. Chinese corporate credit rating also is not representative fully. In the transition economies of China, the financial system is not well developed, so the problem of financing constraint is generally more serious. But for individual companies, different ownership properties, firm size, organizational structure and marketization level of location will affect the degree of corporate financing constraints[9]. In China, the internal financing of companies is subject to corporate performance constraints, while for external financing, the large-scale, government-backed enterprises have dominated the financing market. In addition, China's financial market is not balanced regionally. Compared to companies in western zones, companies in eastern zones clearly have more financial resources. The company's growth opportunities, mortgage ability are are factors to consider. In summary, this paper measure financing constraints from the following four aspects, namely: (1) company size. We use a logarithmic measure of the company's total assets as enterprise scale; (2) the nature of the ultimate controlling ownership. We believe that the level of financing constraints private enterprises face is stronger than the one state-owned enterprises face. In China, after the 1994 tax reform, for local government fiscal revenue and expenditure imbalance, local governments have an incentive to strengthen intervention of the bank credit decisions and credit behavioral. Possibilities of the local state-owned enterprises receiving financing priority are greater than the one of central state-owned enterprises. Therefore, in accordance with the nature of ultimate control, we divide companies into the central state-owned enterprises, local state-owned enterprises and private enterprises, whose code are assigned to 1, 2, 0, respectively. (3) Financial markets. We, following the classification criteria by National Bureau, divide the geographical location of China's listed companies into eastern, central and western economic regions. Eastern region includes Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Guangxi, Hainan, whose code is “2”; Central region includes Shanxi, Inner Mongolia, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, Hunan, whose code is “1”; Western regions includes Chongqing, Sichuan, Guizhou, Yunnan, Tibet, Shanxi, Gansu, Ningxia, Qinghai, Xinjiang, whose code is “0”. We believe that the companies of region with higher code face smaller financing constraint; (4) growth opportunities. We measure growth opportunities for enterprises by the growth rate of main business revenue.

We use two proxy variable for ownership: The proportion of senior executives shareholding (MO), The sum of share ratio owned by the top three shareholders (Top3share).

(B)Sample selection and data sources

In this paper, firstly we select the 2010-2012 China A-share listed companies as primary sample from CCER database, and secondly exclude following companies: financial companies; companies with missing data; companies that belong to ST, *ST and SST companies. Finally we get the 4695 samples, which form the basis of the data in this study. Calculation is completed by Excel2007 and SPSS Statistics 17.0.

EMPIRICAL RESULTS AND ANALYSIS

A. Variable descriptive statistics

TABLE 1 : The definition and description of each variable

Variable code	Variable and its meaning
Leasing	Ln(fixed assets under financial leasing)
Tax	The effective income tax rate, tax expense /(EBIT-I)
Size	Ln(Total assets)
Market	Financial market, code of eastern zone is “2”, code of central zone is “1”, code of western zone is “0”.
Growth	the growth rate of main business revenue
ultimate	the central state-owned enterprises, local state-owned enterprises and private enterprises, whose code are 1, 2, 0, respectively
MO	The proportion of senior executives shareholding

TABLE 2 : Main variables descriptive statistics: all samples

Variable	N	Minimum	Maximum	Mean	Standard deviation
Market	4695	0	2	1.56	.70
Size	4695	1.07	28	21.82	1.35
Mortgage	4695	.00	2.00	.39	.19
ultimate	4695	0	2	.80	.90
Growth	4695	-0.86	14.88	0.337	2.16
MO	4695	0	0.44	0.059	0.149
Tax	4695	-0.23	22	.23	3.27
Top3share	4695	3	98	50.58	16.37
Leasing	4695	0	23	.23	2.07

The above TABLE 2 shows that the mean of the ultimate control code of China's A-share listed companies is less than 1, showing there are many private enterprises among China's A-share listed companies. Private enterprises occupy an important position in China's financial markets, which directly affects the development of China's capital market. The TABLE 2 also shows that ownership structure of sample companies is comparably concentrated, and the maximum, mean of the sum of share ratio owned by the top three shareholders are 98%, 50.58% respectively.

B. Regression results

According to regression results, in three models corporate financial leasing has a positive correlation with firm size, the nature of ultimate controller and corporate mortgage capability. While financial leasing has no significant correlation with degree of financial marketization of corporate location, corporate growth opportunities. This result has proved the hypothesis 1. There are following reasons for it: firstly China is currently underdeveloped financial markets; secondly asymmetric information problem is still more serious, so the lessor still selects the lessee by traditional credit object selection method; finally the government has a strong motivation and the ability to intervene in the financial leasing companies. In a word, financial leasing can not fully play a role in easing financing constraints.

From TABLE 4, we can find that the degree of concentration of ownership of companies has a significant positive correlation with financial leasing, so these results has proved the hypothesis 2, which is in line with the financial contract theory. According to empirical results, the actual corporate income tax rate do not show a significant correlation with financial leasing, and this may be because the current taxation on financial leasing is in the process of reform, and tax laws are different in various industries, various areas, restricting the impact of this factor on corporate financial leasing decision.

TABLE 3 : Regression results

Variable	Model 1		Model 2-1		Model 2-2	
Intercept	-1.431E7**	-3.698	-1.470E7**	(3.601)	-2.572E7**	-3.657
Market	.018	1.193	.013	.900	.014	.915
Size	.054***	3.415	.052***	3.271	.046***	2.879
Mortgage	.043**	2.793	.047***	3.055	.045***	2.949
Growth	(.003)	(.219)	(.004)	(.241)	(.003)	(.213)
Ultimate	.038**	2.413	.048***	2.971	.039**	2.459
Tax	.002	(.144)				
Ownership (MO)			.023	1.441		
Ownership (Top3share)					.037**	2.461
F	7.243***		7.589***		8.098***	
Sample size	4695		4695		4695	
Adj R^2	.008		.008		.009	

Note: The dependent variable is financial leasing (Leasing), and in each model, on the left is a regression coefficient of the results, on the right is the T value, *, **, * denote significant level of 0.01, 0.05, and 0.10 respectively.**

CONCLUSION

Financial leasing plays an important role in the global capital markets, promoting the prosperity and development of capital markets and broadens financing channels for enterprises. Especially in recent years, the rapid development of financial leasing in China is believed by government, businesses and academics to will improve financing problem of Chinese companies, especially SMEs. But actually whether corporate finance leasing business really help ease the financial constraints needs further theoretical analysis and empirical test. Through empirical analysis, we find that financial leasing do not play a significant role to ease financing constraints. Meanwhile, financial leasing has a significant positive correlation with the sum of share ratio owned by the top three shareholders, so the degree of concentration of ownership is an important motivation for corporate financial leasing decisions.

ACKNOWAGEMENTS

This paper is supported by “Beijing Higher Education Young Elite Teacher Project” and “the Fundamental Research Funds for the Central Universities”

REFERENCES

[1] A.Beatty, S.Liao, J.Weber; Financial Reporting Quality, Private Information, Monitoring, and the Lease-Versus-Buy Decision[J].The Accounting Review, **85(4)**, 1215-1238 **(2010)**.

[2] M.Lasfer, M.Levis; The Determinants of the Leasing Decision of Small and Large Companies[J].European Financial Management, **4(2)**, 159-184 **(2001)**.

[3] A.Gavazza; Leasing and Secondary Markets: Theory and Evidence from Commercial Aircraft[J].Journal of Political Economy, **11(2)**, 325-377 **(2010)**.

[4] A.Sharpe, H.Nguyen; Capital market imperfections and the incentive to lease[J].Journal of Financial Economics, **39**, 271-294 **(1995)**.

[5] L.Eisfeldt, A.Rampini; Leasing, Ability to Repossess and Debt Capacity [J]. The Review of Financial Studies, **22(4)**, 1621-1657 **(2009)**.

[6] Wang Xiaofang; Diffcult and Relevant Theoretical Research of Financing of Small and Medium-Sized Enterprises. Wuhan University of Technology, (in Chinese), **(2004)**.

[7] Zhan Junhua; An Empirical Study of factors that affect companies' financing and tax policy. Zhejiang University, (in Chinese), **(2003)**.

[8] Lai mingmin; An Empirical Research of Factors that Influence the Financial Lease in Chinese Enterprises. Journal of Shanxi Finance and Economics University, (in Chinese), **7**, 62-66 **(2005)**.

[9] Wang Yanchao; Financial Constraints, Cash Holdings and Over-investment. Journal of Financial Research, (in Chinese), **7**, 121-133 **(2009)**.

[10] F.Slotty; Financial Constraints and the Decision to Lease - Evidence from German SME [J]. 21st Australasian Finance and Banking Conference, **2009(7)**, 17-43 **(2008)**.

[11] Li Kai, Ye Jianfang; The influence of debt financing under government intervention based on fiscal decentralization. Management World, (in Chinese), **8**, 23-34 **(2007)**.

[12] M.Jensen; Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure [J]. Journal of Financial Economics, **3(4)**, 305-360 **(1976)**.

[13] W.Smith, L.Wakeman; Determinants of Corporate Leasing Policy[J].The Journal of Finance, **40(3)**, 895-908 **(1985)**.

[14] W.Mao, P.Zalaski; The Effect of Buying versus Leasing on Entry Deterrence [Z].Villanova Economics Working Paper, **12**, **(2010)**.

[15] Fazzari, M.Steven, R.Glenn Hubbard et al.; Financing Constraints and Corporate in Investment[J]. Brookings Paper on Economic Activity, **1**, 141-206 **(1988)**.