



# Article Motivation Analysis of Market and Institution on Corporate Leasing Financialization from the Perspective of Regulatory Arbitrage: Evidence from Chinese Listed Companies

Chengke Zhu<sup>1,2,†</sup>, Lijing Shen<sup>3,†</sup> and Yanping Shi<sup>3,\*,†</sup>

- <sup>1</sup> School of Economics and Management, Huaibei Normal University, Huaibei 235000, China
- <sup>2</sup> School of Economics and Management, Hefei University, Hefei 230601, China
- <sup>3</sup> School of International Trade and Economics, University of International Business and Economics, Beijing 100029, China
- \* Correspondence: shiyanping@uibe.edu.cn
- + The authors contributed equally to this work.

Abstract: In recent years, more and more real enterprises speculate and arbitrage in the financial market by participating in financial institutions, and the financialization of micro enterprises has become a general trend. However, the empirical conclusions of existing literature from different dimensions of enterprise development are not consistent. This paper uses the data from Shanghai and Shenzhen A-share companies from 2007 to 2019 to perform an empirical analysis on the market and institutional motivations of the entity enterprises' sharing and holding financial leasing companies (SHFL). It is found that the fundamental reason for enterprises to SHFL is the profit gap between the financial industry and the real industry. The more intense the industry competition, the lower the profit rate, the larger the spread, and the stronger the incentive to SHFL. In addition, the continuous improvement of the national system construction in the financial leasing industry has played an essential role in promoting it. In the heterogeneity analysis, it is found that private enterprises are also motivated to ease financing constraints except interest rate spread. On the contrary, they are not significant in the sample of state-owned enterprises. Equipment manufacturing industries have both narrowing interest rates and equipment promotion motivation, while the non-equipment manufacturing industry has no such characteristics. Finally, the limitations and future research directions of this paper are discussed.

**Keywords:** entity enterprises; profit-driven; leasing financialization; financial constraint; interest spread

# 1. Introduction

Since 2007, and especially after the 2008 financial crisis, most listed companies that have entered the Chinese financial leasing market by setting up financial leasing companies, or holding more than 51% shares, are companies with industrial manufacturing backgrounds rather than financial backgrounds [1]. What are the underlying reasons for this phenomenon? It is well known that China's financial sector has a higher profit return than the entity enterprise. According to the released *Report on China's Top 500 Enterprises*, the manufacturing sector accounts for many of China's top 500 enterprises, with high operating income but low net profit. In the financial industry, by contrast, a few large state-owned banks account for more than a third of net income. According to the data of listed companies, among the real enterprises less than 20% of the net asset return exceeded the financial industry in the same year, and this does not include the equipment manufacturing industry.

The financial leasing industry belongs to the financial sub-industry, but the regulation is relatively loose, which provides opportunities for non-financial enterprises to share and hold financial leasing companies (SHFL). On the one hand, financial attributes of



Citation: Zhu, C.; Shen, L.; Shi, Y. Motivation Analysis of Market and Institution on Corporate Leasing Financialization from the Perspective of Regulatory Arbitrage: Evidence from Chinese Listed Companies. *Sustainability* 2022, *14*, 12581. https://doi.org/10.3390/ su141912581

Academic Editor: Klaus Reiner Schenk-Hoppé

Received: 4 September 2022 Accepted: 28 September 2022 Published: 3 October 2022

**Publisher's Note:** MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



**Copyright:** © 2022 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (https:// creativecommons.org/licenses/by/ 4.0/). financial lease embodied in leverage, the ratio of risk assets to net assets of financial leasing enterprises shall not exceed 12.5 times, and the ratio is less than 10 times for non-financial leasing enterprises. Therefore, in theory, the average net profit rate of the leasing industry is higher than the level of most real enterprises in the industry, which is more attractive to real enterprises. On the other hand, the financial leasing industry is relatively loosely regulated, which is a crucial point. Cui [1] and Zhu [2] believe that the entry threshold and registered capital of China's financial leasing industry are much lower than those of other financial institutions such as banks and trusts, and the approval process is more straightforward. Enterprises can invest in financial leasing companies through sharing, holding, acquisition and other ways.

At present, sale-and-leaseback accounts for the majority of China's financial leasing market, and most of them, in the name of leasing, is exercising arbitrage activities unrelated to the "origin" of leasing. For example, the market is filled with many channel businesses, such as entrusted loans arranged in the name of sale-and-leaseback. In addition, part of the sale-and-leaseback business did not continue to be used for new equipment investment after realizing the funds of equipment assets, resulting in the crowding out of financial leasing funds. The *Global Leasing Report* suggests the anomalies and risks of sale-and-leaseback in the Chinese market. It emphasizes that the sale-and-leaseback business in the Chinese market is different from the mainstream financial leasing business in the world. Many of the equipment assets in sale-and-leaseback are invalid or depreciated assets, which can no longer be continuously leased. In addition, a large part of sale-and-leaseback business directly or indirectly becomes the capital channel business, which becomes the supplement or replacement of the bank loan through an entrusted loan, or other combination methods, and carries out cross-market or even cross-border arbitrage activities in the name of lease.

The structure of this paper is as follows: the second part is the literature review, the third part is the research hypothesis, the fourth part is the data source and research design, the fifth part is the empirical result analysis, and the sixth part is the research conclusion.

#### 2. Literature Review

# 2.1. Leasing Financialization

Scholars have produced a lot of research results on the influencing factors of enterprise financialization. Under the impact of the new normal economy and the pandemic, the profit rate of real enterprises is increasingly low. In contrast, for financial institutions with the monopoly to obtain excess profit rate of return, the return gap between the financial industry and real enterprises prompts more and more non-financial enterprises to issue entrusted loans as financial intermediaries, or directly hold shares in financial institutions or quasi-financial institutions for financialization, in an attempt to narrow the return gap and achieve the goal of equalization of profit margins. Such motives tend to make real enterprises deviate from the main business, aggravating the "shift from real to virtual" [3–7]. The mechanism of real enterprise financialization to improve investment efficiency is reflected in that it can be used as a "reservoir" of liquidity savings, smooth investment behavior and suppress investment volatility [8,9]. Yang et al. [10], through extensive empirical analysis, identified the margin gap between the real economy and virtual economy as an important inducement to the financialization of Chinese real enterprises. Zhang and Zheng [11] found that the financialization of micro enterprises results from enterprise managers' pursuit of shareholder value maximization and enterprise profit maximization at the production end, which is the embodiment of capital's profit-seeking nature.

As a major business form in China's leasing market, sale-and-leaseback, as another business model of "shadow banking", has been a major subject of debate among scholars. Shi et al. [12] believe that the financing sale-and-leaseback business, which is dominant in China, generally uses channel business and other methods to solve the financing problems of the lessee, which is not in line with the nature of financial lease transaction and is out of the "origin" of financial lease. Shi and Wang [13] pointed out that the essence of financing sale-and-leaseback business is bank credit, and its effect is the supplement and replacement

3 of 21

of bank loans. Finucane [14] pointed out that when the lessee has financing constraints, the financial lease transaction can expand the debt capacity and realize the complementarity with other debts. Zhao et al. [15] also reached a similar conclusion based on the data of Chinese listed companies.

#### 2.2. Motivation of SHFL

In the related research on financial leasing, the views on the motivation of SHFL mainly include sales through equipment financial leasing, the interest margin driven by the higher profit rate of the financial industry than the real economy, and the easing of financing constraints [16]. The motivation for foreign and domestic manufacturers to establish financial leasing companies is to make full use of their own resource endowment advantages to carry out equipment financial leasing business, better serve their main business, carry out equipment sales, expand market share and improve product competitiveness [17]. Cui [1] and Zhu [2] both pointed out that the profit rate of China's financial industry is higher than that of the non-financial sector [18], which is the fundamental reason why many real enterprises realize "cross-border finance" by SHFL. Lin [19] believes that financial leasing can help improve the return on total assets of commercial banks. Zhu [20] pointed out that the establishment of financial leasing companies, especially foreign-funded financial leasing companies, often has a relatively clear financing purpose, in order to effectively utilize low-cost overseas funds. Liu [21] discussed the idea of production enterprises using financial leasing to reduce costs from the perspective of taxation.

# 2.3. Financial Leasing Regulatory Arbitrage

In recent years, the phenomenon that the sale-and-leaseback business was separating from the "original source" of leasing dominates our financial leasing market, which has been paid much attention by theory and practice. For example, Xu and Shi [22] compared the leasing service mode, products, structure, transaction volume, and financing amount between China and the United States, Europe, and other countries in East Asia from 2006 to 2019, concluded that financing sale-and-leaseback dominated leasing transactions in China, and identified the institutional causes from a historical perspective. According to Wu [23], Chinese enterprises can achieve more financial flexibility by financing sale-and-leaseback. Kim et al. [24] believed that sale-and-leaseback transactions could realize wealth transfer between shareholders and creditors. Ezzell and Vorta [25] believe that sale-and-leaseback transactions have both tax benefits and financial distress signal effects, which can effectively reduce the bankruptcy costs of enterprises so that sale-and-leaseback transactions can affect the market value of companies. Shi and Wang [13] believe that the sale-and-leaseback of listed companies in China not only has the problem of cash abuse, but also the low efficiency of capital allocation, which will lead leasing enterprises to shift from "real" to "virtual". Teng [26] pointed out that the financial sale-and-leaseback transaction also confuses and complicates the current leasing tax system in China. For example, it complicates the tax objects and collection and management measures related to financial leasing, such as business tax and value-added tax.

There are mainly the following reasons why many enterprises engaged in direct leasing turn to the sale-and-leaseback business for arbitrage: First, the regulatory differences between the two leasing modes are the basic premise and fundamental reason for the transition [5]. Compared with direct leasing, sale-and-leaseback is a more comprehensive, complex, and flexible business model, which can link across multiple capital markets such as banks, trust, insurance, and funds, etc.; it can also, through cooperation with other financial institutions, use the "channel" to bypass industry regulations to complete regulatory arbitrage purposes; Second, the lessor can expand the leasing capital and scale with the help of the "channel", because when a financial leasing company sells and provides a leasing service to the lessee, the lessee is also financing the property for the lessee so that it will consume and occupy part of its capital or funds. According to the regulatory requirements, the total amount of risky assets of leasing companies is controlled by an upper limit (the total amount of risky

assets shall not exceed eight times the net assets), namely, the control of the leverage ratio, so that the leasing capital or the expansion of the leasing scale of direct financial leasing is limited [27]. However, in the sale-and-leaseback mode, leasing companies can also import external funds or creditor's rights through financial channels such as banks, trusts, insurance or funds, to realize the expansion of leasing funds and leasing scale without occupying or using less of their own capital, and the whole process is free from industry supervision; The third is the demand of a specific target customer group or lessee, which is the practical reason for direct lease to turn to sale-and-leaseback arbitrage. At present, many financial leasing customers on the market is small and medium-sized enterprises with limited financing or industries with regulated financing, such as local government financing platforms, real estate and the "High pollution or High emission" ("Two High") industries, etc. These companies or departments have high debt ratio, the debt cycle is long, and capital operation efficiency is low. Generally, it is difficult to obtain this through traditional channels or through direct financing or lease financing. Since 2009, in the face of strict regulation and credit control on real estate, "Two High" industries and local government financing platform, in order to break through the regulation to restricted industry input funds; in some places even state or listed companies, and state-owned enterprises have

formed their own financial leasing companies, with bank, trust, insurance, securities, and other channels. Through a complex business mix, the financing sale-and-leaseback mode can be constructed to realize self-financing, capital transfer, and amplification of leverage within the system [13]. In general, through the literature review, the motivation for the financialization of SHFL mainly includes equipment sales, interest margin drive, and ease of financing con-

SHFL mainly includes equipment sales, interest margin drive, and ease of financing constraints. Relevant studies are primarily qualitative but lack quantitative research. The academic contribution of this paper is to explore the motivation for real enterprises to participate in financial institutions such as financial leasing companies from the perspective of market and institution, conduct empirical analysis, and enrich relevant theories.

In the literature related to financial leasing, Cui [1] and Zhu [2] believe that the profit margin of the financial industry is higher than that of the non-financial industry, which is the fundamental reason for real enterprises to realize "cross-border finance" by SHFL. There have been many pieces of research on the financialization of real enterprises at home and abroad. Yang et al. [10], through many empirical analyses, found that the spread between the real economy and the financial industry is a vital inducement of our real enterprises' financialization. From shareholder value and capital nature of profit, driven by the spread between the financial sector and the non-financial sector, real enterprises can narrow the gap by SHFL to realize financialization. The deeper reason behind the spread drive is that spreads affect shareholder value, and thus shareholder decisions. Zhang and Zheng [11] identified that the profit ratio of the pan-financial industry, including the financial industry and the real estate industry, exceeded that of the secondary industry dominated by manufacturing around 2012, and the gap was continuously and steadily expanding. In conclusion, due to the interest spread between the financial industry and the real enterprise, the real enterprise invests in the leasing company in order to maximize the interests of shareholders. Hypothesis 1 is proposed.

# **Hypothesis 1 (H1).** *The larger the interest spread between the financial industry and entity enterprise, the stronger the incentive for entity enterprises to participate in SHFL.*

Yang et al. [10] believe that since the reform and opening up, the government has set very rigorous access conditions for the financial industry, which makes it easy for the financial industry (especially the banking industry) to continuously obtain excess profit rate by its monopoly position. Under the condition of financial industry monopoly, the financialization of real enterprises becomes an arbitrage way for real enterprises to obtain the excess profit rate of the financial industry [5]. Lian et al. [28] believe that when the actual performance of an enterprise is lower than the expectation of the industry competition,

the organization will implement strategic breakthroughs that deviate from the established level of the industry to reverse the situation of the competitive disadvantage of the industry. That is, with the expansion of the gap in the expectation of the industry competition, the degree of strategic deviation of the organization becomes stronger. Li [29] used the data of listed companies in China to verify the positive impact of product market competition and competitive enterprise position on the financialization of financial asset allocation, and the intensification of product market competition and the improvement of competitive enterprise position will increase the scale of enterprise financial asset allocation.

From the perspective of microeconomic theory, the profit rate of companies with fierce competition is lower than that of the financial industry with a monopoly position. Therefore, enterprises are enthusiastic about investing in financial leasing companies with financial attributes. Compared with industries with the less fierce competition or even a high degree of monopoly, the higher the interest margin, the higher the probability of investing in leasing companies. Accordingly, Hypothesis 2 is put forward.

# **Hypothesis 2 (H2).** *The greater the industry competition, the greater the interest spread, and the greater the probability of SHFL.*

The ratio of sale-and-leaseback business is very high, which is always controversial. The lack of a legally effective lease registration system not only impacts the direct lease business but is also very unfavorable to the lessor to carry out the sale-and-leaseback credit business. Yang [30] believes that a legally effective leasehold registration and inquiry system should be a necessary infrastructure for the leasing industry, which plays a vital role in clarifying the ownership of leasehold property and reducing information asymmetry. Before 2014, there was a lack of legally effective leasehold registration and inquiry system in China. When the lessee sold the same asset to several leasing companies for sale-and-leaseback by forging documents and other means, to increase the financing amount, or when the lessee maliciously handled the leasehold, the ownership of the leasehold by the leasing company may be threatened. The leasehold will not play the role of risk protection, and the leasing company will face certain losses.

With the improvement of the institutional environment of the financial leasing industry, the rights and interests of the lessor can be better protected than before. Therefore, the greater the profit margin, the greater the probability that the enterprise will participate in SHFL. To investigate the change in the number of investors caused by the policy impact on the legal effect of the leasehold registration system in 2014, Hypothesis 3 is proposed.

**Hypothesis 3 (H3).** *After 2014, when the legal effect of the leased property registration system takes effect, the higher the interest margin, the higher the probability that the entity enterprise will participate in SHFL.* 

#### 3. Method

3.1. Measurement

3.1.1. Dependent Variables

In Equation (1), the dependent variable is  $fin\_lea_{it}$ , which represents the dummy variable of whether the entity enterprise SHFL. If the entity enterprise SHFL, then  $fin\_lea_{it} = 1$ ; if not, then  $fin\_lea_{it} = 0$ .

#### 3.1.2. Core Independent Variables

The median difference in ROE between the financial industry and the entity enterprise is used as the core independent variable. The median is used instead of the arithmetic mean, mainly because the arithmetic mean is easily affected by outliers. When calculating the median ROE, since the sample of the manufacturing industry accounts for more than 60% of the total sample of the industry then to measure the research object more accurately the manufacturing industry is divided into the secondary industry, and the rest are divided into the primary industry [31,32]. The original intention of this margin index is to reflect the ROE gap between entity enterprises and the financial industry, to stimulate entity enterprises to engage in shadow banking and other corporate financialization behaviors, reflecting the maximization of shareholder value and the profit-seeking nature of capital in corporate governance.

There are several reasons for using the median difference in ROE as the core explanatory variable. First, the difference in ROE at the firm level can only represent the operation status of individual enterprise, but not the industry. What is attractive to real enterprises is the overall average level gap. Therefore, the selection of the median difference in this index can not only explain the motivation of real enterprises with poor performance to SHFL, but also why the excellent performance stocks still participate in SHFL. Second, from the perspective of the empirical analysis, it can solve the problem of endogeneity due to bidirectional causality. The ROE is affected by  $fin\_lea_{it}$ , the industry median difference correlated with the firm difference, whereas the industry median difference is not affected by  $fin\_lea_{it}$ , which meets the requirements of instrumental variables [33].

## 3.1.3. Control Variables

Based on Zhang and Zheng [9] and Yang et al. [8], the control variables include corporate financial characteristics, basic corporate information and corporate governance information, respectively. In addition, the moderating variables are needed for the mechanism test and moderating mechanism.

In order to verify Hypothesis 1, Model 1 is built to explore the impact of interest rate margin on whether entity enterprises participate in SHFL:

$$fin\_lea_{it} = \beta_0 + \beta_1 rmed_{g_{it}} + \beta_2 size_{it} + \beta_3 cflow_{it} + \beta_4 lev_{it} + \beta_5 tang_{it} + \beta_6 age_{it} + \beta_7 orecta_{it} + \beta_8 shrhfd_{it} + \sum year + \sum industry + \varepsilon_{it}$$

$$(1)$$

To verify Hypothesis 2, namely, the larger the margin, the stronger the motivation for them to participate in SHFL, Model 2 is built as follows:

$$fin\_lea_{it} = \beta_0 + \beta_1 rmed_{g_{it}} + \beta_2 Hh\_x\_rg_{it} + \beta_3 HHI\_high_{it} + \delta * CV_{it} + \sum year + \sum industry + \gamma_{it}$$
(2)

Model 2 adds  $Hh_x_rg$  and  $HHI_high$  based on Model 1. The variable  $HHI_high$  indicates that the industry competition index HHI is lower than the median, and the group with a small HHI represents the intense competition in the industry, which equals 1. A large HHI indicates less competition in the industry, which equals 0.  $Hh_x_rg$  is the interaction term of *rmed* and  $HHI_high$ . The more competition, the bigger the spread, and the stronger the motivation to participate in SHFL. The coefficient  $\beta_2$  of  $Hh_x_rg$  should be significantly positive. For convenience, the control variables are uniformly denoted as  $CV_{it}$ , the same as below.

Finally, Model 3 is constructed to verify Hypothesis 3, and test the institutional motivation for the entity enterprises to participate in SHFL:

$$fin\_lea_{it} = \beta_0 + \beta_1 rmed_{g_{it}} + \beta_2 Hh\_rmg\_x\_poli_{it} + \beta_3 policy_{it} + \delta * CV_{it} + \sum year + \sum industry + \gamma_{it}$$
(3)

In Model 3,  $Hh_rmg_x_poli$  and *policy* are added based on Model 1, where policy represents the impact of the legal force policy on the leased property registration system, and the definition is shown in Table 1.  $Hh_rmg_x_poli$  is the interaction term between interest rate spread *rmed* and *policy*. In 2014 and after, the legal effect of the lease registration system will lead to the higher interest rate spread, a higher probability of entity enterprises to SHFL. The coefficient  $\beta_2$  should be significantly positive.

	Symbol	Variable	Definition
Dependent variables	fin_lea	Dummy variable of SHFL	If the company SHFL, <i>fin_lea</i> = 1, otherwise <i>fin_lea</i> = 0
Core dependent variables	rmed_g	Interest rate spread between the financial sector and the entity enterprise	Median ROE difference between financial sector and entity enterprise
other dependent variables	KZ	financial constraint	$KZ = -1.001909 \times cflow + 3.139193 \times lev - 39.3678 \times divid$ - 1.314759 × cash + 0.2826389 × tobin, where divid, cash, tobin represents dividend, cash holdings and Tobin's Q.
	sgr	Sales revenue growth rate	(Current sales revenue – previous sales revenue)/previous sales revenue
Control variables	size lev cflow tang age orecta shrhfd3	Firm size Asset-liability ratio Cash flow Proportion of tangible assets Firm age Major shareholder funds Ownership concentration	log of total asset Total liabilities/total assets Operating cash flow/current asset (net fixed assets + net inventory)/total assets log of firm age by 2019 Other Accounts receivable/total assets at end of period The total shareholding ratio of the top 3 major shareholders of the company
moderating variables	policy HHI	Policy impact on rental property registration system Industry Competition Index	If the year is after 2014, <i>policy</i> = 1, if the year is before 2014, <i>policy</i> = 0 Herfindahl index is used as the proxy index of market competition, and the specific calculation formula is $\sum(xi/X)^2$ , where xi stands for the sales revenue at year I, X represents the sum of annual sales of all firms in the industry. The smaller the <i>HHI</i> , The more competitive the market.

### Table 1. Name and definition of main variables.

Table 1 summarizes the definitions and descriptions of all variables in Models 1 to 3. Table 2 reports the results of descriptive statistics of each variable in Model 1–Model 3. The descriptive statistics show that the maximum profit return gap between the financial industry and the real industry is 42.5%, with an average of 3.8%. The statistical results of each control variable are basically in line with expectations, and the details will not be given here.

Table 2. Descriptive statistics of variables.

Variables	Observations	Mean	s.d.	Min	Max
fin_lea	27,006	0.048	0.214	0.000	1.000
rmed_g	27,006	0.038	0.039	-0.092	0.425
size	27,006	22.010	1.292	19.220	25.970
cflow	27,006	0.044	0.072	-0.199	0.250
lev	27,006	0.447	0.218	0.054	1.077
tang	27,006	0.371	0.179	0.019	0.816
age	27,006	3.013	0.258	2.398	3.526
orecta	27,006	0.018	0.029	0.000	0.196
shrhfd3	27,006	0.158	0.115	0.013	0.563
ΚZ	26,243	1.245	1.277	-3.059	4.375
turnover	27,006	0.683	0.476	0.048	2.693
sgr	27,006	0.196	0.527	-0.660	3.996

In this paper, the correlation coefficient matrix is used to test the multicollinearity. Among them, the correlation coefficient between company size and the asset–liability ratio is the highest, which is 0.337, while the others are small. At the same time, the average VIF of the calculated variables is 1.18, indicating no high correlation between variables.

#### 3.2. Data Sources

The data of non-financial enterprises of A-share listed companies from 2007 to 2019 were selected, and the financial data and basic information data were from CSMAR (China

Stock Market & Accounting Research Database). The data of listed companies' participation in SHFL are obtained from the survey of the China Leasing Business Association. In this paper, the shareholding type with very low shareholding ratio is excluded. To arrive at our final sample selection, we did some data processing: (1) we excluded the samples of financial companies and real estate companies; (2) we dropped the samples that the main variables were missing; (3) to avoid the influence of extreme values, all the continuous variables were winsorized at 1% and 99% levels. Finally, 27,006 valid observations were obtained.

### 4. Results

# 4.1. The Market Motivation of SHFL

Table 3 reports the regression results of Model 1. The explained variable is the dummy variable of whether the entity enterprise SHFL, Column 1 shows the regression results using the Logit model, and Column 2 is the Probit model of regression results. In the whole sample, the coefficient of *rmed\_g* is positive at the 5% significance level, which confirms the market motivation of SHFL. Driven by the profit margin gap between the financial and non-financial sectors, the entity enterprises can narrow the gap by SHFL to realize financialization, which is in line with the profit-seeking nature of capital.

Table 3. The results of interest margin on SHFL.

	(1) Logit	(2) Probit
rmed_g	4.092 **	2.078 **
Ū.	(2.26)	(2.14)
size	0.730 ***	0.357 ***
	(11.75)	(11.37)
cflow	-3.171 ***	-1.591 ***
-	(-4.70)	(-4.95)
lev	0.810 **	0.376 **
	(2.35)	(2.17)
tang	-2.534 ***	-1.236 ***
C C	(-6.26)	(-6.25)
age	-0.385	-0.167
-	(-1.39)	(-1.23)
orecta	5.419 ***	3.055 ***
	(3.34)	(3.59)
shrhfd3	-1.914 ***	-0.995 ***
	(-3.07)	(-3.31)
_cons	-20.460 ***	-10.117 ***
	(-12.68)	(-12.59)
N	27,006	27,006
industry	yes	yes
year	yes	yes
Pseudo R <sup>2</sup>	0.206	0.205

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors.

#### 4.2. The Profit-Driven Mechanism of SHFL

Table 4 reports the regression results of Model 2. The explained variable is the dummy variable of whether the entity enterprise SHFL. Column 1 is the regression results of Logit model, and Column 2 shows the regression results of Probit model. The coefficient of  $Hh1\_x\_rg$ , is positive at the significance level of 1%, indicating that for non-financial enterprises, the more intense the industry competition is, the lower the profit rate of return they can obtain, and the greater the interest margin and the stronger the motivation to SHFL. This is consistent with the monopolistic competition theory in microeconomics.

	(1) Logit	(2) Probit
rmed_g	2.598	0.911
0	(1.35)	(0.87)
$Hh1_x_rg$	6.391 ***	3.295 ***
	(3.53)	(3.81)
HHI_hig	-0.183	-0.088
-	(-1.26)	(-1.26)
size	0.731 ***	0.359 ***
	(11.77)	(11.40)
cflow	-3.158 ***	-1.589 ***
-	(-4.67)	(-4.94)
lev	0.788 **	0.368 **
	(2.28)	(2.12)
tang	-2.532 ***	-1.234 ***
-	(-6.26)	(-6.25)
age	-0.384	-0.168
2	(-1.39)	(-1.23)
orecta	5.423 ***	3.057 ***
	(3.34)	(3.60)
shrhfd3	-1.920 ***	-0.996 ***
-	(-3.08)	(-3.32)
_cons	-20.492 ***	-10.098 ***
	(-12.64)	(-12.54)
Ν	27,006	27,006
industry	yes	yes
year	yes	yes
Pseudo R <sup>2</sup>	0.208	0.206

Table 4. The mechanism of interest margin on SHFL.

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors.

# 4.3. The Institutional Motivation of SHFL

Table 5 reports the regression results of Model 3. As can be seen, the coefficient of  $rmed\_g$  is no longer significant, indicating that the impact of SHFL has been captured by interactive items to some extent. The coefficient of *policy* is positive at the 1% significance level, illustrating the development of the financial leasing industry system, the legitimate rights and interests for financial leasing companies, which help to enhance the confidence and willingness of entity enterprise investors to SHFL. On the other hand, the coefficient of  $rmg\_x\_poli$  is positive at the 5% significance level, indicating that after 2014 the registration system of law comes into effect, the rights and interests of financial leasing companies and their investors can get an effective guarantee, making the interest margin larger and lead to the probability of entity enterprises of SHFL becoming larger.

Table 5. The results of leasing property registration system on SHFL.

	(1) Logit	(2) Probit
rmed_g	-2.233	-0.907
0	(-0.73)	(-0.49)
rmg_x_poli	7.601 **	3.911 **
0,	(2.30)	(2.08)
policy	1.997 ***	0.834 ***
	(4.22)	(4.08)
size	0.731 ***	0.358 ***
	(26.58)	(11.40)
cflow	-3.179 ***	-1.590 ***
2	(-6.30)	(-4.96)
lev	0.804 ***	0.370 **
	(4.60)	(2.14)

	(1) Logit	(2) Probit
tang	-2.529 ***	-1.234 ***
-	(-12.22)	(-6.24)
age	-0.381 ***	-0.164
0	(-3.20)	(-1.21)
orecta	5.408 ***	3.062 ***
	(5.77)	(3.59)
shrhfd3	-1.917 ***	-0.995 ***
5	(-6.68)	(-3.31)
_cons	-20.041 ***	-9.928 ***
	(-22.49)	(-12.20)
Ν	27,006	27,006
industry	yes	yes
year	yes	yes
Pseudo R <sup>2</sup>	0.207	0.206

Table 5. Cont.

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors.

It is worth noting that in the two years after 2014, there will be another reform event of the "four pillars" of the leasing industry. The "four pillars" of the financial leasing industry refer to regulation, law, accounting, and tax. In terms of taxes, financing sale-and-leaseback are treated as credit in 2015. The tax policy combined with the legal effect of the leasing property registration system strengthens and extends the impact effect of the favorable outcome of the policy, which increases the probability of the entity enterprises' to SHFL.

#### 4.4. Heterogeneity Analysis

Based on the above main research ideas, this paper makes observations and discussions from two perspectives of heterogeneity, namely the property right attribute and whether it is related to the main business.

# 4.4.1. Heterogeneity Analysis I: Ownership

The reasons for choosing the heterogeneity of ownership to observe mainly include that companies with different ownership face different financial entry thresholds and financing constraints.

 Heterogeneity of profit-driven motivation between state-owned enterprises and private enterprises

Table A1 reports the regression results of Model 1 in the sub-samples of private and state-owned enterprises. Columns 1 and 2 are the Logit regression results of private enterprises and state-owned enterprises, respectively; Columns 3 and 4 are the Probit regression results of private enterprises and state-owned enterprises. Combined with the total sample in Table 4, in the heterogeneity analysis of enterprises with different ownership it is found that the coefficient of the spread between the financial industry and non-financial industry is not significant in the sample of state-owned enterprises, while it is significantly positive in the sample of private enterprises. At the same time, the significance of the spread coefficient of private enterprises is stronger than that of the total sample, and the coefficient is larger.

An important reason for the insignificant margin coefficient of state-owned enterprises may be that state-owned enterprises operate with multiple objectives. Social responsibilities such as employment may attract more attention than corporate performance. In addition, more state-owned enterprises participate in quasi-financial institutions like financial leasing companies. Overall, the motivation of state-owned enterprises to participate in financial leasing companies is more complex. Therefore, state-owned enterprises use the same margin, which does not show that the larger the margin, the stronger the incentive to SHFL. However, private enterprises with good operating performance, as relatively rational market participants, can focus on their primary business and do not participate in (or participate in less) financial business due to many reasons, such as the inability to obtain excess credit resources. However, private enterprises with a large return gap with the financial industry choose SHFL.

In addition to the above, the domestic financial industry has severe discrimination against the private enterprises; private enterprises in the financial sector face a higher threshold, and state-owned enterprises are not facing discrimination. It strengthened the corporation under the spreads motivation and holding financial institutions, which is in line with the private enterprises that want to take this into the financial industry expectations in theory and practice. Although private enterprises in China face discrimination in financial access, private enterprises can take a detour into the financial industry through a financial leasing license, which aligns with the motivation of investors in domestic and foreign leasing companies, especially foreign leasing companies. The domestic financial industry has always had a high threshold for private enterprises, but from practice, private enterprises have successfully entered the financial field through financial leasing companies. At the end of the 1990s, China's financial leasing industry came to the brink of collapse. Private enterprises entered the financial leasing companies on the verge of bankruptcy through restructuring. It was a "pioneering move" for private enterprises to enter the financial field by borrowing the "financial license" of financial leasing companies. However, even so, private enterprises still face many restrictions. After the establishment of private enterprises, the financial business of financial leasing companies was restricted at every turn.

 The heterogeneity of motivation of enterprises with different ownership to alleviate financing constraint

The difference between enterprises of different ownership is not only reflected in the interest rate spread, but also there is the difference in the motivation of easing their financing constraints. Private enterprises generally face higher financing constraints than state-owned enterprises. There is a specific relationship between ownership and firm size. The size of firms in the same year is divided into four groups according to the quartile. Within the 25% quantile of observation value is defined as a small-scale enterprise, and more than 75% quantile is defined as a large-scale enterprise. At the same time, the distribution of state-owned enterprises and private enterprises in the large and small groups was statistically analyzed. It was found that private enterprises account for 80% of small-scale enterprises and state-owned enterprises account for 70% of large-scale enterprises. Smallscale enterprises face more significant financing constraints than large-scale enterprises, and if small-scale private enterprises, will face more financing constraints.

Li and Li [34] found that non-state-owned enterprises are mainly motivated by combining industry and finance to alleviate financing constraints. Only non-state-owned enterprises with a high degree of financing constraints will participate in financial institutions. In contrast, state-owned enterprises do not participate in financial institutions based on financing constraints. Zhang and Liu [35] classified central and local state-owned enterprises as low financing constraint groups, while private enterprises were classified as high financing constraint groups. Combined with the status quo of SHFL, as foreign-funded leasing companies can exploit the foreign exchange channels to obtain low-cost foreign capital, some private listed companies are more restricted in obtaining financing through traditional bank credit channels. The motivation of investment leasing companies also includes easing their financing constraints. However, state-owned enterprises do not face financing discrimination in the financial market due to implicit government guarantees and other reasons. To verify this hypothesis, based on Model 1, the financing constraint index is added, and regression analysis is conducted.

Table A2 shows the regression results of private and state-owned enterprise samples after adding the financing constraint index based on Model 1. Column 1 and Column 3 are the Logit and Probit regression results of private enterprises, respectively. The KZ index of financing constraint is positive at 1% significance level, indicating that the greater the financing constraint of private enterprises, the stronger the motivation for SHFL. At the

same time, compared to Table A1, the values of  $R^2$  in the regression results increase, which shows that financing constraints explain part of the reasons for private enterprises to participate in financial leasing companies except interest rate spread. Compared to Column 2 and Column 4, the coefficients of the state-owned enterprises financing constraint index are positive. Still, it is not significant, indicating that the motivation for state-owned enterprises to participate in financial institutions does not include easing financing constraints.

Based on the above, private enterprises' participation in SHFL, on the one hand, is driven by the interest rate spread, trying to break the entry threshold of the financial industry and earn financial profits through financial leasing licenses. On the other hand, SHFL can alleviate its financing constraints, rather than engaging in new equipment leasing. Especially since the supply-side reform in 2015, enterprises have faced varying degrees of deleveraging pressure. For state-owned enterprises, the reasons for SHFL are more complex and diverse. With government intervention, they can obtain natural credit advantages. Moreover, large financial institutions in the financial industry are all state-owned, and the financial access threshold is much lower than that of private enterprises, which further strengthens the credit advantages of state-owned enterprises.

4.4.2. Heterogeneity Analysis II: Equipment Manufacturing Industry (EMI) or Not

From the perspective of whether it is related to the main business of listed companies, a critical link in the transaction structure of the financial leasing business is whether the lease item is equipment. Whether the enterprise belongs to the equipment manufacturing industry is directly related to whether SHFL can realize the promotion of equipment through a financial leasing business.

Heterogeneity of profit-driven motivation between EMI and non-EMI

As can be seen from Table A3, Columns 1 and 2 show Logit regression results, and Columns 3 and 4 show Probit regression results. The plus-minus and significance of coefficients of Logit and Probit regression results in this group are the same. For the sample of EMI in Column 1 and Column 3, the interest rate spread is significantly positively correlated with SHFL. In comparison, the interest rate spread coefficient of non-EMI in Column 2 and Column 4 is not significant. The coefficient of non-EMI is not significant, and there may be the following reasons: Through the statistical analysis of the basic structural characteristics of the data of non-EMI, it is found that the enterprises with good performance may have a small gap with the financial industry or even exceed the financial industry and make full use of their capital and other resources to expand the existing advantages, leading to the insignificant result between the interest rate and SHFL.

Heterogeneity of Sales Promotion-driven Motivation between EMI and non-EMI

In the structure of financial leasing transactions, Chinese EMI has the same motivation as foreign countries to SHFL. They fully use the financial leasing business to achieve product sales, improve market competitiveness and increase profits [1,2,36]. The purpose of EMI to sales promotion by SHFL is to accelerate the assets turnover speed, improve profit efficiency, improve sales revenue growth, release the pressure of sales and business development bottleneck, and finally enhance return on ROE to narrow the gap with financial profit rate of return. As a comparison, since the non-EMI has no equipment as the item to lease, they may engage in the lease of new equipment, the lease of used equipment, or the sale-and-leaseback credit business through SHFL. Considering this, the following model is constructed for verification. In the basic regression model, asset turnover ratio and sales revenue growth rate are added.

The regression results are shown in Table A4. For EMI, the significance of *rmed\_g* decreases in the Logit and Probit regression results. The coefficients of *turnover* are all negatively correlated at 5% significance level. The coefficient of *sgr* is negatively correlated. This indicates that the EMI has a stronger incentive to sell equipment than to earn excess profits from the financial industry. At the same time, as a financial tool to solve financing problems, equipment leasing is still in the financial category, which means the larger the spread, the

lower the asset turnover rate and the lower the growth rate of sales revenue, the stronger the motivation to SHFL. However, in the sample regression results of non-EMI in Column 2 and Column 4, there is no significant negative correlation between asset turnover, sales revenue growth rate and SHFL except for the insignificant *rmed\_g*, which is in line with theoretical expectations and economic status quo.

4.5. Robustness Check

4.5.1. Endogeneity Test

Heckman method

Heckman's two-stage method was proposed by Heckman [37] and mainly used to solve the problem of sample selection bias. Sample selection bias means that the parameters that we estimate in the regression equation are based on the data points that were selected into the sample. In order to solve the problem of whether the entity enterprises SHFL can be observed, the Heckman method is adopted for the motivation of enterprises SHFL. In the process of manually collecting sample data of financial leasing companies, the sample data of non-sharing-and-holding leasing companies have been collected through database, announcement and manual retrieval. Due to the normative disclosure of public statements and annual reports of listed companies, errors caused by omissions may still occur. Therefore, the observed values except the sharing and holding samples are treated as missing values, to deal with the endogeneity problem arising from sample selection. The specific test results after processing by the Heckman method are shown in Table A5.

Compared with the benchmark regression results in Table 4, the coefficient of  $rmed_g$  has decreased. However, it is still significantly positive at 5%, which is consistent with the benchmark regression results, indicating that the conclusion is robust. Driven by the spread, the entity enterprises have a stronger incentive to SHFL.

Lagging form of variables

Referring to the practice of Liu and Liu [38], based on the benchmark regression, this paper adopts the lagged form regression analysis for all explanatory variables, to alleviate the endogeneity problem that may be caused by the bidirectional causality of enterprise characteristics on the decision of SHFL. Both Logit and Probit models were used for regression analysis. As can be seen in Column 1 in Table A6, the significance level and the spread value are falling, but they are still significant. In Column 2, the spread coefficient is significant at the 5% level, showing that the conclusion is robust. The greater the gap, the greater the probability that the entity enterprises SHFL.

#### 4.5.2. Changing Dependent Variable

Using the proportion of shares in leasing companies held by entities (*share\_hold*) and category variable (*hold\_type*) of holding the leasing company as proxy variables of *fin\_lea* for robustness test. The categorical variable refers to an enterprise that if a company shares leasing companies, it equals 1; if a company holds leasing companies, it equals 2; otherwise, it equals 0. The bigger the number, the stronger willingness to control leasing companies.

Using the above three variables as explained variable separately, regression analysis was performed using a two-way fixed effects model; the results are shown in Table A7, which shows that the coefficients of spread are consistent with benchmark regression results in Table 4, although the significance level declined slightly but is still significant; this shows that the conclusion is robust, namely, with increasing spread, the probability of SHFL increases and the company will hold more shares in financial leasing companies.

# 4.5.3. Changing Independent Variables

In December 2020, *Report on China's Shadow Banking* issued by the China Banking and Insurance Regulatory Commission listed the financing provided by financial leasing companies as a part of generalized shadow banking. It warned that the sale-and-leaseback business was a kind of loan business. Because of this, in this section, the spread is calculated through the profit return of the banking industry and the real industry to carry out the robustness test. The calculation method is the same as the above spread index, and the regression results are shown in Table A8. Both the Logit regression results in Column 1 and the Probit regression results in Column 2 show that the coefficient of interest spread is positive at the significance level of 5%. The larger the profit margin gap between the financial industry and non-financial industry, the greater the probability that entity enterprises will SHFL, indicating that the conclusion is consistent and robust.

### 5. Discussions

The research on the leasing financialization is still worth studying. As stated in our previous results, it is found that the fundamental reason why real enterprises realize "cross-border finance" by SHFL is that the profit margin of the financial industry is higher than that of the non-financial industry. This is because China's financial industry is in a monopoly position and the profit margin is higher than that of the non-financial industry, so the real enterprises seek the financialization way to obtain the excess profit rate [8,39,40].

The results also show that the interest rate spread has different motivations for different ownerships. The sample results of private enterprises are significantly positive, while state-owned enterprises are not [41]. The insignificant result of state-owned enterprises may be because state-owned enterprises are more involved in financial leasing financial institutions. On the whole, the motivation for state-owned enterprises to SHFL is more complex [42].

The study also found that in the results of the EMI, the interest rate spread was significantly positively correlated with SHFL, while the interest rate spread of non-EMI was not significant [43,44]. The reason may be that the return gap between enterprises with good performance and the financial industry is small, or even higher, than that of the financial industry, which makes the difference between the interest margin and the participating leasing companies insignificant.

The limitation of this paper is that it is difficult to obtain some data and there is little research of the positive effect on financial leasing on the real economy as a typical supply chain financial tool. For example, if we can obtain the data of cooperation between listed companies in China's EMI and third-party financial leasing companies, we can more clearly examine the contribution of this financial leasing mode. However, at present, only some listed companies in the construction machinery industry have disclosed relevant information on the promotion mode of financial leasing in the notes to the financial statements.

Based on this study, the future research directions include the following: first, given the situation, some entity enterprises withdraw from holding financial leasing companies, especially the reasons and effects of withdrawing from holding multiple leasing companies; second, compared with the way of sharing and holding leasing subsidiaries, the cooperation between the EMI and the third-party leasing companies is more beneficial to the long-term development of the finance leasing industry; third, financial leasing and other financial subindustries are included in a unified research framework, especially commercial factoring, pawn and other financial institutions with industrial and commercial licenses that were later unified under the supervision of the China Banking and Insurance Regulatory Commission to make the research more general and valuable.

# 6. Conclusions

Since 2008, more and more investors have participated in the team of SHFL. What are the motivations for shareholders of financial leasing companies to participate, and what kind of operational risks and performance have the holding companies brought to the shareholders of real enterprises? This paper discusses the motivation of SHFL.

Our main results are as follows: First, from the perspective of profit-seeking and shareholder value maximization, it confirms that the interest spread is the fundamental reason for the leasing financialization; Second, it is found that the more competitive the industry is, the lower the ROE, the greater the interest difference with the financial industry, and the stronger the motivation to SHFL; Third, in the process of China's non-

financial enterprises participating in and holding financial leasing institutions, the system construction of the national financial leasing industry has played an important role in promoting. This paper verifies the beneficial effect of the lease registration system as a policy impact on the protection of the legitimate rights and interests of the lessor; Fourth, in the part of heterogeneity analysis of different ownership properties of enterprises, we found that the stronger the financing constraints of private enterprises, the greater the probability of SHFL. However, due to the financing advantages of the credit market, the motivation of state-owned enterprises to SHFL is more complicated; Fifth, we find that the results between EMI and non-EMI also show apparent differences. It is shown that the EMI is mainly to accelerate the turnover rate, improve the sales revenue, and narrow the gap with the financial industry by SHFL. In contrast, the non-EMI does not show relevant characteristics.

The empirical results of the legal system have policy implications, especially for policy makers. The result shows that the financial leasing regulation is crucial to the industry, so it is particularly important to formulate appropriate regulatory policies, which will not have a negative impact on the leasing industry, but also stimulate the vitality of the leasing industry. This requires the government to formulate relevant policies and clarify the exit mechanism of financial leasing companies: First, the government conducts macro-control on the market subject, forming a joint force with the invisible hand of the market force to guide the entity enterprises to focus on the main business; Second, in terms of the system supply of the financial leasing industry, improve the financial infrastructure in terms of enterprise credit reporting, increase the lessee's default costs, and protect the legitimate rights and interests of the financial leasing companies and investors; Third, we need to help enterprises defuse operational risks. In particular, we need to deepen financial supply side reform and effectively increase the supply of long-term funds.

**Author Contributions:** Conceptualization, Y.S.; methodology, L.S. and C.Z.; software, L.S.; validation, L.S. and C.Z.; formal analysis, Y.S. writing—original draft preparation, L.S. and C.Z.; writing—review and editing, C.Z. All authors have read and agreed to the published version of the manuscript.

**Funding:** This project is jointly supported by the 211 Project of University of International Business and Economics (Grant No. 32012), and the Excellent Top-notch Talents Training Funding Project of Anhui's Universities (Grant No. gxgwfx2021007).

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

**Data Availability Statement:** The data presented in this study are available on request from the corresponding author. The data are not publicly available due to privacy.

Conflicts of Interest: The authors declare that there is no conflict of interest involved.

# 16 of 21

# Appendix A

	(1) Private Logit	(2) State-Owned Logit	(3) Private Probit	(4) State-Owned Probit
rmed_g	9.524 ***	0.013	4.767 ***	0.120
5	(3.02)	(0.01)	(3.02)	(0.09)
size	0.696 ***	0.932 ***	0.339 ***	0.463 ***
	(9.22)	(9.15)	(8.79)	(9.02)
cflow	-4.455 ***	-2.851 **	-2.218 ***	-1.400 **
2	(-5.25)	(-2.20)	(-5.74)	(-2.25)
tang	-2.327 ***	-2.466 ***	-1.088 ***	-1.245 ***
0	(-3.95)	(-3.78)	(-3.88)	(-3.90)
age	-0.027	-0.686	0.025	-0.357
C	(-0.07)	(-1.35)	(0.15)	(-1.37)
orecta	5.440 ***	6.163 **	3.219 ***	3.101 **
	(2.82)	(2.28)	(3.31)	(2.15)
shrhfd3	-1.197	-2.815 ***	-0.637	-1.488 ***
-	(-1.19)	(-2.98)	(-1.35)	(-3.14)
_cons	-19.783 ***	-22.220 ***	-9.770 ***	-11.064 ***
	(-8.43)	(-8.75)	(-8.59)	(-8.59)
Ν	14,028	11,143	14,028	11,143
industry	yes	yes	yes	yes
year	yes	yes	yes	yes
Pseudo R <sup>2</sup>	0.184	0.267	0.184	0.266

Table A1. The results of interest margin on SHFL with different ownership.

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors.

Table A2. The results of financial constraint on SHFL with different owner	ship.
--	-------

	(1) Private Logit	(2) State-Owned Logit	(3) Private Probit	(4) State-Owned Probit
rmed_g	8.943 ***	1.983	4.999 ***	1.159
C	(2.74)	(0.74)	(3.05)	(0.83)
KZ	0.309 ***	0.023	0.148 ***	0.004
	(4.18)	(0.22)	(4.21)	(0.09)
size	0.683 ***	0.693 ***	0.342 ***	0.338 ***
	(9.42)	(8.17)	(9.25)	(7.68)
cflow	-3.068 ***	-3.272 ***	-1.540 ***	-1.657 ***
	(-3.41)	(-2.83)	(-3.64)	(-2.93)
tang	-2.809 ***	-2.598 ***	-1.384 ***	-1.326 ***
-	(-4.74)	(-3.88)	(-4.97)	(-4.11)
age	-0.076	-0.748	-0.002	-0.383
	(-0.21)	(-1.44)	(-0.01)	(-1.47)
orecta	3.590 *	4.590	2.136 **	2.549 *
	(1.75)	(1.56)	(2.01)	(1.71)
shrhfd3	-0.861	-2.793 ***	-0.467	-1.391 ***
	(-0.84)	(-2.76)	(-0.96)	(-2.81)
_cons	-17.246 ***	-16.605 ***	-8.842 ***	-8.187 ***
	(-7.72)	(-7.49)	(-8.18)	(-7.19)
Ν	13,223	10,904	13,223	10,904
industry	Yes	yes	yes	yes
year	Yes	yes	yes	yes
Pseudo R <sup>2</sup>	0.200	0.239	0.201	0.238

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors.

	(1) EMI Logit	(2) Non-EMI Logit	(3) EMI Probit	(4) Non-EMI Probit
rmed_g	15.686 **	-1.348	7.638 **	-0.491
C	(2.05)	(-0.51)	(2.17)	(-0.40)
size	0.772 ***	0.696 ***	0.404 ***	0.324 ***
	(7.88)	(9.52)	(7.92)	(8.87)
cflow	-3.027 ***	-2.663 ***	-1.516 ***	-1.356 ***
2	(-2.74)	(-2.92)	(-2.74)	(-3.32)
lev	0.891 *	0.866 *	0.461 *	0.371 *
	(1.70)	(1.88)	(1.69)	(1.68)
tang	-2.648 ***	-1.832 ***	-1.343 ***	-0.842 ***
5	(-3.71)	(-3.79)	(-3.89)	(-3.56)
age	-0.341	-0.011	-0.168	0.017
C	(-0.80)	(-0.03)	(-0.80)	(0.09)
orecta	4.626 *	7.102 ***	2.521 *	3.834 ***
	(1.68)	(3.76)	(1.70)	(4.00)
shrhfd3	-2.341 **	-1.098	-1.268 **	-0.538
	(-2.21)	(-1.52)	(-2.45)	(-1.56)
_cons	-21.244 ***	-20.486 ***	-11.053 ***	-9.685 ***
	(-9.45)	(-10.46)	(-9.24)	(-10.16)
Ν	9335	17,671	9335	17,671
year	Yes	yes	yes	yes
Pseudo R <sup>2</sup>	0.197	0.204	0.201	0.199

Table A3. The results of interest margin on SHFL in EMI and non-EMI.

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors. Since the heterogeneity perspective is selected from different industrial backgrounds, which is to some extent a re-classification of the industry, and the core explanatory variable is the industry median difference in net profit return, this part of the regression does not include industry fixed effects, to avoid excessive interference.

	(1) EMI Logit	(2) Non-EMI Logit	(3) EMI Probit	(4) Non-EMI Probit
rmed_g	11.959	-1.365	5.977 *	-0.513
Ũ	(1.60)	(-0.52)	(1.72)	(-0.41)
turnover	-0.729 **	0.117	-0.358 **	0.043
	(-2.42)	(0.72)	(-2.43)	(0.53)
sgr	-0.166 *	-0.072	-0.094 **	-0.036
C C	(-1.94)	(-0.85)	(-2.10)	(-0.86)
size	0.797 ***	0.700 ***	0.417 ***	0.325 ***
	(8.00)	(9.51)	(8.06)	(8.83)
cflow	-2.086 *	-2.672 ***	-1.061 *	-1.365 ***
-	(-1.82)	(-2.95)	(-1.86)	(-3.33)
lev	1.052 **	0.812 *	0.543 **	0.351
	(2.06)	(1.78)	(2.02)	(1.60)
tang	-2.704 ***	-1.840 ***	-1.357 ***	-0.847 ***
Ū.	(-3.89)	(-3.75)	(-4.02)	(-3.54)
age	-0.304	-0.011	-0.150	0.017
	(-0.70)	(-0.03)	(-0.71)	(0.10)
orecta	3.930	7.145 ***	2.110	3.844 ***
	(1.41)	(3.78)	(1.43)	(4.01)
shrhfd3	-2.087 **	-1.141	-1.150 **	-0.554
-	(-1.97)	(-1.57)	(-2.22)	(-1.60)
_cons	-20.985 ***	-20.598 ***	-10.946 ***	-9.722 ***
	(-9.31)	(-10.46)	(-9.19)	(-10.09)
Ν	9335	17,671	9335	17,671
year	yes	yes	yes	yes
Pseudo R <sup>2</sup>	0.205	0.204	0.208	0.199

Table A4. The results of sales promotion-driven motivation on SHFL between EMI and non-EMI.

Note: Same as the above table.

	Heckman Test
 rmed_g	0.226 **
	(1.97)
size	0.031 ***
	(20.22)
cflow	0.000
	(0.02)
lev	0.049 ***
	(3.75)
tang	-0.132 ***
	(-8.99)
age	-0.014 *
-	(-1.75)
orecta	0.279 ***
	(4.85)
shrhfd3	-0.094 ***
	(-4.78)
lambda	0.116 ***
	(18.69)
Ν	27,006
Industry	yes
Year	yes
chi <sup>2</sup>	$1.7 imes10^4$

Table A5. The results of interest margin on SHFL with different ownership with Heckman test.

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors.

	(1) Logit	(2) Probit	
 L.rmed_g	3.136 *	1.551 **	
0	(1.66)	(2.31)	
L.size	0.531 ***	0.254 ***	
	(8.97)	(18.75)	
L.cflow	-2.499 ***	-1.625 ***	
	(-4.75)	(-6.95)	
L.lev	0.915 ***	0.430 ***	
	(2.58)	(4.73)	
L.tang	-2.561 ***	-1.215 ***	
č	(-5.96)	(-11.22)	
L.age	-0.392	-0.164 ***	
0	(-1.38)	(-2.69)	
L.orecta	4.699 ***	2.687 ***	
	(2.61)	(4.95)	
L.shrhfd3	-1.631 ***	-0.817 ***	
-	(-2.59)	(-5.74)	
_cons	-15.099 ***	-7.441 ***	
	(-9.94)	(-19.82)	
Ν	23,642	23,642	
Industry	yes	yes	
Year	yes	yes	
Pseudo R <sup>2</sup>	0.166	0.165	

**Table A6.** Regression result with a lag form of variables.

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors.

	(1) fin_lea	(2) hold_type	(3) share_hold
rmed_g	0.155 **	0.240 *	11.714 *
	(1.97)	(1.71)	(1.81)
size	0.018 ***	0.038 ***	1.205 ***
	(3.92)	(4.39)	(3.78)
cflow	-0.043 **	-0.086 **	-4.430 ***
	(-2.15)	(-2.39)	(-2.73)
lev	0.028 *	0.060 **	3.580 ***
	(1.80)	(2.15)	(3.02)
tang	-0.042 **	-0.100 ***	-5.060 ***
Ũ	(-2.33)	(-2.94)	(-3.43)
age	0.067	0.110	2.414
Ū.	(0.60)	(0.56)	(0.23)
orecta	0.153 *	0.215	4.370
	(1.91)	(1.49)	(0.73)
shrhfd3	-0.060	-0.115	-4.001
	(-1.30)	(-1.32)	(-1.03)
_cons	-0.592 *	-1.133 *	-31.959
	(-1.66)	(-1.79)	(-0.98)
Ν	27,006	27,006	27,001
individual	yes	yes	yes
year	yes	yes	yes
R <sup>2</sup>	0.072	0.070	0.064

Table A7. Regression results after changing dependent variable.

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors.

|--|

\_

	(1) Logit	(2) Probit
rmed_g	4.267 **	2.185 **
u u	(2.26)	(2.20)
size	0.542 ***	0.258 ***
	(9.48)	(9.16)
cflow	-3.315 ***	-1.688 ***
-	(-5.33)	(-5.60)
lev	1.167 ***	0.550 ***
	(3.43)	(3.24)
tang	-2.711 ***	-1.322 ***
-	(-6.25)	(-6.41)
age	-0.347	-0.138
-	(-1.26)	(-1.02)
orecta	5.275 ***	3.033 ***
	(3.19)	(3.48)
shrhfd3	-1.666 ***	-0.852 ***
-	(-2.67)	(-2.84)
_cons	-16.312 ***	-7.953 ***
	(-11.05)	(-10.96)
Ν	27,001	27,001
Industry	yes	yes
Year	yes	yes
Pseudo R <sup>2</sup>	0.184	0.183

Note: \*, \*\*, \*\*\* indicate a notable level of significance at, respectively, 10%, 5%, and 1%, and the values in parentheses are robust standard errors.

# References

1. Cui, J. The Motive and Effection of Chinese Listed Company—Study Based on the Selection of Lessee and Lessor. Ph.D. Thesis, University of International Business and Economics, Beijing, China, 2014. (In Chinese).

2. Zhu, C. Study on the Impact of Financial Leasing in China's Equipment Manufacturing Industry. Ph.D. Thesis, University of International Business and Economics, Beijing, China, 2017. (In Chinese).

- 3. Du, Y.; Zhang, H.; Chen, J. The Impact of Financialization on Future Development of Real Enterprises' Core Business: Promotion or Inhibition. *China Ind. Econ.* 2017, *12*, 113–131. (In Chinese)
- 4. Wang, H.; Cao, Y.; Yang, Q.; Yang, Z. Does the Financialization of Non-financial Enterprises Promote or Inhibit Corporate Innovation. *Nankai Bus. Rev.* 2017, 20, 155–166. (In Chinese)
- 5. Xu, J.; Cheng, P. Leasing Criterion Arbitrage: Causes, Signals and Effects. Finance Account. Mon. 2022, 5, 53–58. (In Chinese)
- Jin, X.M.; Mai, Y.; Cheung, A. Corporate Financialization and Fixed Investment Rate: Evidence from China. *Finance Res. Lett.* 2022, 48, 102898. [CrossRef]
- Zheng, S.; Zhang, X. Study on the Impact of Financialization on Financial Performance of Entities with Loss. *Finance Theory Pract.* 2022, 9, 21–32. (In Chinese)
- 8. Hu, Y.; Wang, X.; Zhang, J. The Motivation for Financial Asset Allocation:Reservoir or Substitution?—Evidence from Chinese Listed Companies. *Econ. Res. J.* 2017, *52*, 181–194. (In Chinese)
- 9. Stulz, R. Rethinking Risk Management. J. Appl. Corp. Finance 2010, 9, 8–25. [CrossRef]
- 10. Yang, Z.; Wang, H.; Dai, J.; Xu, C. Deregulation of Interest Rate, Equalization of Profit-rate, and Enterprises' Shift from Real to Virtual. *J. Financ. Res.* **2019**, *6*, 20–38. (In Chinese)
- 11. Zhang, C.; Zheng, N. Heterogeneity of the Financialization of the Real Economy in China. *J. Financ. Res.* **2019**, *469*, 1–18. (In Chinese)
- 12. Shi, Y.; Chen, Q.; Huang, X. CEO with Financial Background and the Enterprise's Lease Financing. *Contemp. Finance Econ.* **2021**, 37, 89–100. (In Chinese)
- 13. Shi, Y.; Wang, H. Financial Supply-Side Structural Reform and Reconstruction of Supervision Mode of Financial Leasing Industry in China. *J. Tianjin Univ. Soc. Sci.* **2021**, *23*, 121–128. (In Chinese)
- 14. Finucane, T.J. Some Empirical Evidence on the Use of Financial Leases. J. Financ. Res. 1988, 11, 321–333. [CrossRef]
- 15. Zhao, N.; Wang, B.; Zhang, K.Y. Financial Leasing, Bank Credit and Corporate Investment. J. Financ. Res. 2021, 1, 150–168. (In Chinese)
- 16. Shi, Y.; Yang, W. Production Efficiency and Financial Leasing Decision of Equipment Manufacturing Enterprises. J. Ind. Technol. Econ. 2020, 39, 65–74. (In Chinese)
- 17. Peng, L. Accounting Treatment of Agents in Construction Machinery Finance Lease Sales Mode. *Finance Account.* **2021**, *1*, 61–63. (In Chinese)
- 18. Liu, F.; Du, J.H. Monetary policy uncertainty and the transformation of firms from real to Virtual: Evidence from the Financialization of non-financial firms. *J. Econ. Syst. Reform.* **2022**, *4*, 144–150. (In Chinese)
- 19. Lin, X. The Impact of Financial Leasing on Diversification Performance of Commercial Bank Group. *J. Fujian Jiangxia Univ.* 2022, *12*, 44–52. (In Chinese)
- 20. Zhu, H. Discussion on the Necessity and Feasibility of Establishing Finance Leasing Company in Large Construction Enterprise Group. *Lun Dao* **2017**, *14*, 33–34. (In Chinese)
- 21. Liu, Y.C. How to use financial leasing to reduce tax costs. Certif. Tax Agent 2018, 12, 40-43. (In Chinese)
- Xu, J.; Shi, Y. Financial leasing, Optimal Financial Structure and Economic Growth: An Analysis Based on Financial Inclusion Perspective. In Proceedings of the International Conference on Economic Management and Model Engineering, Malacca, Malaysia, 6–8 December 2019; pp. 147–150.
- 23. Wu, Z. Research on Risk Pricing Model of Domestic Finance Lease. *Rev. Invest. Stud.* 2012, 31, 148–154. (In Chinese)
- 24. Kim, E.H.; Lewellen, W.G.; McConnell, J.J. Sale-and-Leaseback Agreements and Enterprise Valuation. J. Financ. Quant. Anal. 2009, 13, 871–883. [CrossRef]
- 25. Ezzell, J.R.; Vora, P.P. Leasing versus Purchasing: Direct Evidence on a Corporation's Motivations for Leasing and Consequences of Leasing. *Q. Rev. Econ. Finance* 2001, *41*, 33–47. [CrossRef]
- Teng, X. Tax Policy Reviews on Financial Lease in View of the Tax Theory of Transaction Characterization. *Finance Trade Econ.* 2015, 2, 29–44. (In Chinese)
- Su, Q. Analysis on the Tax Treatment of Perpetual Debt and Asset Securitization of Financial Leasing Companies. *Finance Account.* 2020, 20, 57–60. (In Chinese)
- Lian, Y.; Ye, W.; Liu, Y. Industrial Competition Aspiration and Organization Strategic Deviation: An Empirical Study in China. J. Manag. World 2019, 35, 155–172. (In Chinese)
- 29. Li, S. On the Impact of Product Market Competition and Competitive Position on the Allocation of Enterprise Financial Assets. *Reform Econ. Syst.* **2020**, *1*, 119–127. (In Chinese)
- 30. Yang, T. A Study about the Financial Leasing Industry's Deviation from its Fundamental Purpose in China from the Perspective of Lessees. Ph.D. Thesis, University of International Business and Economics, Beijing, China, 2019. (In Chinese).
- 31. Flannery, M.J.; Rangan, K.P. Partial Adjustment toward Target Capital Structures. J. Financ. Econ. 2005, 79, 469–506. [CrossRef]
- Wan, L.; Liao, M.; Hu, J. Financial-Industrial Integration and Financial Constraints: Evidence from Listed Companies' Holding Bank Shares. Nankai Bus. Rev. 2015, 18, 64–72. (In Chinese)
- Deng, L.; Liu, R.; Jiang, P. Do Corporate's Excess Bank Loans Lead to Over-investment? J. Financ. Res. 2017, 37, 115–129. (In Chinese)
- Li, W.; Li, M. Combination of Entity Enterprise and Financial Institution: Financial Constraints, Policies to Cater or Market Competition? Based on the Empirical Research of Different Property. J. Financ. Res. 2017, 8, 100–116. (In Chinese)

- 35. Zhang, C.; Liu, G. The Investing and Financing Decision Mechanism of the Chinese Real Sector: Economic Uncertainty and the Financial Constraints Perspective. *Econ. Res. J.* **2018**, *53*, 51–67. (In Chinese)
- 36. Shi, Y. Foundations of Financial Leasing; University of International Business and Economics Press: Beijing, China, 2005. (In Chinese)
- 37. Heckman, J.J. Sample Selection Bias as a Specification Error. *Econometrica* **1979**, 47, 153–161. [CrossRef]
- 38. Liu, X.; Liu, Y. Leverage, Short-term Debt for Long-term Use and Firm Performance. Econ. Res. J. 2019, 54, 127–141. (In Chinese)
- 39. Lv, Y.; Wu, Z.S. Relative Profitability of Finance and Monetary Policy. Contemp. Financ. Res. 2020, 1, 28–37. (In Chinese)
- 40. Wen, S.Y.; Mou, S.; Liu, X.L. Is the Profit of China's Financial Industry too High—Based on the Analysis and Empirical Evidence of Marx's Interest-bearing Capital Theory. *Economist* **2020**, *6*, 95–106. (In Chinese)
- 41. Li, P.; Huang, Y.Z. Operational capability, Environmental Regulation and the Financialization of manufacturing enterprises. *Commun. Finance Account.* **2022**, *17*, 78–82. (In Chinese)
- 42. Pang, X.; Wang, K.M. Study on the Motivation and Effect of Local State-owned Listed Companies Holding Commercial Banks. *Econ. Theory Bus. Manag.* 2020, *39*, 88–101. (In Chinese)
- 43. Zhang, Y.M.; Cong, L.J.; Fang, C.C. The Impact of Financialization on the Degree of Transformation and Upgrading of Manufacturing Enterprises: A Mediating Effect Test based on Risk and Return. *Rev. Invest. Stud.* **2022**, *41*, 4–19. (In Chinese)
- Da, T.F.; Liu, D.Y. Will the Financialization of Manufacturing enterprises expand enterprise Risk?—Based on the Analysis of A-share Listed Manufacturing Companies. J. Jilin Technol. Bus. Univ. 2022, 38, 44–50. (In Chinese)