Research on the Capital Structure Decisions of China Logistics Industry: Using the Unbalanced Panel Data Analysis

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Abstract

This paper bases on Listed Chinese logistics enterprises samples, from two aspects of static and dynamic to empirically investigate main effect factors of the capital structure, then studies to compare related research results with traditional Chinese manufacturing listed companies, in order to reveal the characteristics of Chinese listed logistics enterprises financing decision and dynamic adjustment, and summarize the corresponding theory through that. The results suggest that financing decisions of Chinese logistics enterprises have a certain difference from the traditional manufacturing enterprises, not only in financing structure establishment, but also in the dynamic adjustment of capital structure, having more mortgage-backed asset, larger size and better profitability are the powerful conditions of rapid financing adjustment for logistics enterprises.

Keywords: logistics industry; capital structure; dynamic adjustment

1. Introduction

Logistics industry is a compound service industry which includes transportation, warehousing, freight forwarders, information and many other industries. It's one of the strategic industries that China focuses on at present. With the logistics enterprises becoming modernization, large-scale, and collectivization, the financing decision problem has become an important research content that must be focused on. Compared with other industries, logistics enterprises generally have higher financial leverage [1], it can provide assistance to the enterprises through ensuring ownership and getting the benefits from the financial leverage, but will lead to higher financial risk. Nowadays, researches rarely involve Chinese domestic logistics enterprises financial decision problem, and the previous literatures mostly pay attention to the status quo, competition ability, evaluation system and impact on enterprise performance of Chinese logistics industry, but empirical researches relating to the financing decision problem is lacking.

Compared with the traditional manufacturing industry, obviously, modern logistics industry exists differences in terms of financial decision. The 12th five-year plan announced by the State Council of China explicitly proposes "vigorously develop modern logistics industry", and establishes the measures to promote the healthy development of the logistics industry. The departments and local governments issue a series of special planning and supporting measures to ensure the stable development of the logistics industry. In this context, how to grasp the financial decision-making characteristics of logistics enterprises becomes an important issue. By comparing the Chinese listed logistics enterprises and traditional manufacturing enterprises in the financing structure establishment and dynamic adjustment determinants, this paper tries to reveal the

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characteristics of Chinese logistics enterprises' financial decision-making characteristics and look for further interpretation from the viewpoint of traditional theory of capital structure.

2. Literature Review

In 1958 Modigliani and Miller created the modern capital structure theory and puts forward MM capital structure theory. Since then, scholars abroad and at home, their main work was to gradually relax assumption, in order to make the theory more close to reality. Trade-off theory was the first form Myers' study [2], which thought there was trade-off between the tax breaks and the expected cost of bankruptcy. Then Ross came up with Signaling Theory in 1977, from the perspective of information asymmetry to explain the determinants of corporate capital structure that plagued economists for a long time. The pecking order theory pointed out that the principle of corporate financing order is internal priority and external second [3]. After that, in 1966, Stein put forward the market timing hypothesis, the main point is when the share prices is be overrated, managements may choose to issue more stocks to take advantage of investors' non-reasonableness mindset.

With the development of the capital structure theory, economic circles also began to pay attention to the related factors influencing the capital structure, and a series of empirical researches started. Then, the researches on the capital structure of a single industry are also involved. For example, Feng et al. (2000) regarded steel industry as sample, found that the profitability and capital structure had a certain relationship [4]. From the point of Chinese real estate industry, listed real estate companies' solvency and asset-liability ratio were a significant negative correlation. Wen (2006) selected the listed agricultural companies, found that the capital structure and the scale of the enterprise were a positive correlation [5]. Frank and Goyal (2009) did the empirical analysis on listed companies of pharmaceutical industry, found that their capital structure and product market competition positively correlated [6]. Profitability, liquidity ratio and other factors in the oil industry were negatively correlated with asset- liability ratio, but the companies' growth and asset-liability ratio were positively correlated. Above research results were mostly based on the data of all listed companies or manufacturing enterprises, although scholars also studied some special industries, and concluded the similar or different conclusions, the researches on logistics industry were less. In fact, Yi Wu (2011) used the input-output techniques to study the logistics industry, the result showed that in China, the logistics industry made a great contribution to economic development [7]. In modern service industry, the logistics industry was more and more important, its services ran through each big industry chain, even became the important strategic to improve the competitiveness of traditional industries.

The logistics industry rapidly developed, at the same time, the domestic scholars also began to research the logistics industry, and Chen and Hu (2004) studied the approach to the evaluation of the logistics industry [8]. An *et al.*, (2007) analyzed the influence of the change of the capital structure on corporate performance, by choosing listed Chinese logistics enterprises sample, and found the greatest characteristic of modern logistics was the third party logistics industries' vigorous development [9]. However, there was a problem in common, the present articles that gave priority to with normative research could not achieve the empirical effect in reality, and researching the effect factors of capital structure lacked a complete research process. Therefore, the contribution of this paper is to seek real decision factor of the capital structure of the logistics industry, and find out the difference between logistics industry and traditional industry, finally provide theoretical basis for Chinese logistics enterprises to carry on capital structure decision.

3. Research Design

According to our research purpose, this paper chooses seven different variables, the proportion of mortgage assets, market to book value, ROE and so on. By arranging and analyzing the financial data of logistics enterprises and manufacturing enterprise, we establish a research model, and explore the influence factors of logistics enterprises' capital structure through empirical research.

3.1. Variable Definition

Asset-liability ratio reflects the debt proportion of all capital provided by the creditors, also known as the leverage ratio. The leverage ratio is a comprehensive index which is usually used to measure comprises' capital structure [10]. High asset-liability ratios mean high leverages to most companies, and the interest on the debt can be disbursed before paying tax, this can produce more profits as the function of debt tax shield, so compared with equity financing, companies prefer debt financing [3], but when the asset-liability ratio becomes too high, this will also make enterprises face greater bankruptcy costs. When preparing financial statements, the accounting principles require companies to estimate losses, but not gains, this makes the such as inventory's book value can't be modified when its fair value rises, the difference in calculation method of share price, market supply and demand, and there may be problems which cannot be reflected in the book such as assets, so usually the calculation of asset-liability ratio according to the market value and book value leads to different results. Therefore, this paper will do the research from both the angles of market value and book value.

On the one hand, the higher the proportion can be used in mortgage-backed assets, the higher the enterprise's credit level is, so it can raise money at lower cost through asset guarantees, and enterprise's debt ratio is also increased. So it is believed that tangible assets ratio and asset-liability ratio is positively related [11]. Ren (2014) tested the capital structure and performance of listed logistics enterprises through the panel model, he founded that the relationship between proportion of mortgage assets and asset-liability ratio is significantly positive [12]. Tong (2010) used cross sectional data and multiple regression analysis method, to do the quantitative analysis of influence factors of logistics enterprises' capital structure, he thought that, in our country, transportation and ware-housing listed companies owned a large amount of fixed assets and inventory as guarantees, so the asset-liability ratio is relatively higher [13]. But different scholars' research conclusion also varies, Li and Cheng (2013) used a sample of 32 small and medium-sized enterprises in Shenzhen Stock Exchange, they obtained a negative correlation between asset-liability ratio and the collateral value of assets [14]. However, Li and Dong (2003) did an empirical analysis about the influence factors of capital structure of information listed companies, and they found that, in information technology enterprises, the collateral value of assets is negatively related to the asset structure, but no significant impact on capital structure [15].

The ratio of market and book value is a measure of growth opportunity index. Due to the potential lack of investment, financial risk cost and agency costs of debt are generally willing to bear the high growth firms [1]. On the contrary, the pecking order theory is that high leverage firms have more growth opportunities; Debt is expected to increase when investment exceeds the retained earnings. The conclusion of most studies report and the trade-off theory are consistent, suggesting that the corporate growth opportunities and leverage ratio is significantly negative correlation, so as significant negative correlation with asset-liability ratio. This is also compatible with market timing angle if the market timing drives capital structure decision, higher market to book ratio will reduce the leverage. And through equity financing can find undervalued shares' price by the market. Hong and Shen through Chi square test come up with the company growth has no significant effect on corporate capital structure [16]. One thing is that most of the

enterprises which grow well are new industry and private enterprises and technology and operations management are not mature with huge risk of operation, which will undoubtedly cause negative impact on the debt ratio. The other thing is that the companies with good growth need large capital, however, long term financing often suffer from many limitations. Thus, the companies financing by debt will bring positive effect on the debt ratio. In addition, there is no significant correlation between growth and capital structure [17].

ROE is the enterprise profit ability, showing the quantity and quality enterprise gains in a certain period of time, this article selects ROE as the representative of profitability indicators, ROE=net profits/net assets. Titman and Wessels (1988) many research results show the factors that affect the capital structure include profitability [11]. However, trade off theory believed that companies more profitable can bear more interest expense, so they may choose higher asset-liability ratio. But the conclusion of the pecking order theory is different, compared to the bond financing, enterprises should give priority to the internal financing, and the stronger the profitability is, the more internal capital they will have which is available in the financing demand, then asset-liability ratio will be low. The latter's conclusion gets more empirical researches' support [6].

Many domestic scholars have studied the capital structure influencing factors, the researches show that firm size plays a very important role in enterprise's capital structure decision making, it means the enterprises will prefer different asset-liability ratio according to different scales. In the balance theory, Myers, Rajan and Zingales pointed out that enterprises' bankruptcy costs will decrease with the increase of the scale, so the asset-liability ratio of big company should be higher than small companies [18]. Agency cost theory suggests that small firms are more likely to use less short-term liabilities and more long-term liabilities. Small companies often face higher risk of bankruptcy, and their long-term financing cost is higher, so they prefer to short-term debt financing. But different from the research results of Titman and Wessels (1988), Feng *et al.*, (2000), Zhang (2010)used regression analysis and obtained that the size of enterprise and its debt ratio is significant positive correlated [4, 11].

In the field of financial analysis in our country, the analysis of enterprise debt paying ability is mainly through the analysis of the current ratio and quick ratio. Some scholars found that the enterprise debt paying ability and the asset-liability ratio are negatively related [15-17], they thought that companies with lower cash ability, if they want to meet their short-term financing needs, they can only choose external financing especially debt financing because of the lack of internally generated fund, and this will improve the asset-liability ratio. This article mainly concerns that whether the current ratio is significantly influence factors of the capital structure of the logistics industry.

Depreciation of fixed assets, amortization of intangible assets and long-term prepaid expenses, *etc.*, are all in pre-tax expenses, so they have tax effect the same as interest, so these are called non-debt tax shield although they are not debt. Feng *et al.*, (2000) obtained the conclusion by regression analysis, such as the non-debt tax shield is negatively correlated with the asset-liability ratio, while the debt tax shield is positively related to it, they thought, this suggested that companies are moving towards the direction of the optimal capital structure when making financing decisions rationally [4]. At the same time, Yang (2013) selected a sample of 43 logistics listed companies, then used their financial data in the accounting annual report to do empirical analysis of the influence factors of the capital structure of listed logistics companies, the conclusion points out that the non-debt tax shields is significantly positive correlation with capital structure [10].

We use the total assets growth rate to represent the company's growth. Total assets growth rate is an important indicator to measure corporate growth. Pecking order theory points out that relative to the enterprises with low growth, high growth enterprises' demand for capital is more, therefore, it is often difficult to satisfy their financing needs by internal financing. And in order to maintain equity focus not be diluted, the

shareholders also don't want to issue new shares, so they have to choose debt financing. Similarly, signal theory also indicated that the new high-growth companies tend to convey the value of the company growth by high asset-liability ratio. Tong (2010) through analyzing the influence factors of capital structure of listed companies, concluded that the company growth ability and the asset-liability ratio are positive correlated significantly [13]. However, Kim and Sorensen (1986), Li and Cheng (2013) showed that the enterprise growth is negatively related to its asset-liability ratio [14, 19].

But Titman and Wessels (1988), Feng *et al.*, (2000), Li and Dong (2003) concluded that the influence of enterprises' growth and capital structure isn't significant [11, 4, 15]. Specific definition of the variables is shown in Table 1.

Table 1. Table Label

Variable	Marks	Formula
Asset-liability Ratio Market Value	DLev	total debts book value/(Shareholders equity market value+total debts book value)
Asset-liability Ratio Book Value	DLev	total debts book value / total assets
Proportion of Mortgage Assets	TANG	(inventory +fixed assets) / total assets
Market-to-book	M/B	(total liability + non tradable shares $\times$ net assets per share + the number of shares in circulation$\times$ price of stock)/(total liability + owner equity)
Profit Ability	ROE	net profits/net assets
Firm Size	SIZE	ln (total assets)
Liquidity Ratio	CUR	liquidity asset/liquidity liability
Non-debt Tax Shield	NDTS	(depreciation and amortization)/total assets
Total Assets Growth Rate	TAGR	(total assets at year end-total assets at the beginning of the year)/ total assets

3.2. Variable Definition

First, according to the research purpose and classical theory of capital structure in this paper, the basic regression model can be formulated as follows:

$$Y_{i,t} = \alpha + X'_{i,t}\beta + u_i + \varepsilon_{i,t} \tag{1}$$

In this model, $Y_{i,t}$ ($MLev_{i,t}$ and $BLev_{i,t}$) represent the leverage ratio of firm i in year t, α is the constant term, X'_i, t is a 1×7 vector of observations on seven explanatory indicators. Specifically, $X_{i,t}$=($TANG_{i,t}$, $M/B_{i,t}$, $ROE_{i,t}$, $SIZE_{i,t}$, $CUR_{i,t}$, $NDTS_{i,t}$, $TAGR_{i,t}$).

$$MLev_{it} = \alpha + \beta_1 TANG_{i,t} + \beta_2 M/B_{i,t} + \beta_3 ROE_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 CUR_{i,t} + \beta_6 NDTS_{i,t} + \beta_7 TAGR_{i,t} + u_i + \varepsilon_{i,t} \tag{2}$$

$$BLev_{it} = \alpha + \beta_1 TANG_{i,t} + \beta_2 M/B_{i,t} + \beta_3 ROE_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 CUR_{i,t} + \beta_6 NDTS_{i,t} + \beta_7 TAGR_{i,t} + u_i + \varepsilon_{i,t} \tag{3}$$

In addition, β is a 7×1 vector of parameters, μ_i is the unobserved firm specific effect, and $\varepsilon_{i,t}$ is the unobserved zero-mean error term. Second, in order to examine the dynamic adjustment of capital structure, we designed the following models:

$$Y_{i,t} - Y_{i,t-1} = \alpha + X'_{i,t}\beta + u_i + \varepsilon_{i,t} \tag{4}$$

$$\Delta MLev_{it} = \alpha + \beta_1 TANG_{i,t} + \beta_2 M/B_{i,t} + \beta_3 ROE_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 CUR_{i,t} + \beta_6 NDTS_{i,t} + \beta_7 TAGR_{i,t} + u_i + \varepsilon_{i,t} \tag{5}$$

$$\Delta BLev_{it} = \alpha + \beta_1 TANG_{i,t} + \beta_2 M/B_{i,t} + \beta_3 ROE_{i,t} + \beta_4 SIZE_{i,t} + \beta_5 CUR_{i,t} + \beta_6 NDTS_{i,t} + \beta_7 TAGR_{i,t} + u_i + \varepsilon_{i,t} \tag{6}$$

Where, $Y_{i,t}-Y_{i,t-1}$ is time t firm i's adjustment range of capital structure compared with the previous period, $\Delta MLev_{i,t}$ and $\Delta BLev_{i,t}$ are asset-liability ratio market value and book value adjustment range.

3.3. Data Selection

Considering the representativeness and accessibility of sample, this study selects all the manufacturing, transportation, warehousing and postal service of all listed companies in China securities regulatory commission (CSRC) in the new industry classification as the original samples, and chooses the financial data of original samples from 2003 to 2013.

4. Results and Discussion

In this paper, we respectively conduct the regression analysis on both the book value and market value of listed companies' asset-liability ratio, finally compare and observe the research results. Especially focuses on the differences between them and tries to explore the causes of those differences, eventually using the conclusion to give some practical guidance to the capital structure decision of modern logistics enterprises. Table 2 is the result of traditional manufacturing companies and modern logistics industry. The results show that the same variables seem to have certainly different impact on logistics industry and the traditional manufacturing companies. Table 3 is the result of the enterprise's dynamic adjustment which studies the effect of different variables on the enterprise capital structure adjustment, the study of dynamic adjustment makes the research more practical.

Table 2. Financial Decisions Regression Results

	Logistics Industry			Manufacturing Industry		
	MLev	BLev	VIF	MLev	BLev	VIF
Constant	-1.132***	0.255***		-0.744***	-1.421***	
	(0.111)	(0.043)		(0.041)	(0.326)	
TANG	-0.199***	-0.991***	1.335	0.185***	0.519***	1.056
	(0.033)	(0.013)		(0.013)	(0.105)	
M/B	0.166***	0.983***	1.438	-0.017***	0.333***	1.215
	(0.012)	(0.005)		(0.001)	(0.008)	
ROE	-0.038**	0.001	1.009	0.000	-0.007***	1.011
	(0.017)	(0.004)		(0.000)	(0.002)	
SIZE	0.064***	-0.009***	1.063	0.049***	0.055***	1.149
	(0.005)	(0.002)		(0.002)	(0.015)	
CUR	-0.014***	-0.001	1.107	-0.014***	-0.043***	1.035
	(0.002)	(0.001)		(0.001)	(0.005)	
NDTS	0.261	0.263	1.009	0.834***	-18.206***	1.056
	(0.530)	(0.205)		(0.233)	(1.867)	
TAGR	0.026**	0.000	1.042	0.000	0.001	1.003
	(0.011)	(0.004)		(0.000)	(0.004)	
Adj. R2	0.434	0.987		0.246	0.181	
Year	Yes	Yes		Yes	Yes	
F	69.606	6678.627		361.134	245.025	
Obs.	627	627		7730	7730	

Standard deviations are in parenthesis, * P<0.1; **p<0.05; ***p<0.01

The mortgage assets proportion and the asset- liabilities ratio are significantly positive related (+), but to the traditional manufacturing enterprise, it is significant negative correction (-). Manufacturing enterprises inspection structure is consistent with Juan Wang (2002) conclusion, but of the opposite with the conclusion of Li and Cheng (2013), Lu and Xin (1998) [21,14,20]. But the test result of the logistics enterprises and manufacturing enterprises were significantly different, this indicates that in the respect of collateral assets, logistics enterprises in particular, collateral assets cannot get mortgage financing advantage. Market-to-book value has a significant positive (+) impact on asset-liability ratio in logistics enterprises, but it's negative (-) to the asset-liability ratio in

traditional manufacturing companies, but to book value it is positive (+). By contrast, caused by a lack of potential investment, growth companies are often willing to bear higher financial risk cost and debt agency cost. Therefore, the tradeoff theory considered that the market-to-book value and the asset-liability ratio are negatively correlated. However, through empirical research, Hong and Shen (2000) put forward that the growth rate of company has no significant effect to the enterprise capital structure [16].

Although enterprises with high growth rates are mostly emerging industry and private enterprises, their technology and operation management are not mature, they also have higher management risk, these will have negative effects on the asset-liability ratio. But, companies with high growth rates need larger capital, and its long-term financing are often subjected to many restrictions, so the enterprises can use bond financing only, which in turn brings positive impact. So companies' growth rate has no significant correlation with capital structure [17].

ROE representing profitability to market leverage for logistics enterprises, and to book leverage for manufacturing enterprises are significantly negative (-) effect. The pecking order theory thought firms gave priority to use internal retained earnings, then debt and equity when financing. Therefore, enterprises with better profitability often keep a low leverage. But domestic scholars, Hong and Shen (2000) concluded that profitability and debt were positively related through empirical analysis, and he thought that the better the profitability, the higher debt they can withstand [16]. When enterprises' profitability are better, the enterprises can keep enough profits, so debt levels will decline. Feng et al. (2000) also thought when companies lost money and lacked of equity financing, only solved the problem through short-term debt financing [4].

Both analysis are consistent with our conclusion. Firm size to the logistics market leverage and manufacturing leverage are very significant positive correlation (+). This confirms with the increasing of firm size, the degree of information asymmetry will significantly reduce, which lead to enterprises more easily to obtain debt financing [13]. However, this obviously contradicts with the pecking order theory, the theory illustrates with the increasing of size, enterprises will be more inclined to internal financing, and the firm size is negative correlation with asset-liability ratio. On the other hand, the same as this paper's conclusion, the trade-off theory points out that the larger firm size, the greater production and operation of space, more diversified, the smaller the probability of bankruptcy, and financial leverage should be higher, so the firm size has a positive effect on the asset-liability ratio.

Overall, compared to small companies, large enterprises are more likely to get loans, so the enterprise scale is positive correction with capital structure [22]. However, this is totally different from the conclusion of Lu and Xin (1998) [20], they considered that the enterprise scale has no significant impact on capital structure, while our analysis shows a significant positive correlation between the two. Current ratio and the asset-liability ratio is significantly negative correlation (-) in both logistics and traditional manufacturing listed companies. The company's current ratio have a multiple impact on capital structure, the higher the current ratio is, the stronger the firm's ability to pay short-term debt, therefore, companies can increase debt levels. However, the company has more current assets which can be used as investment capital, its liabilities demand will reduce. In the field of financial analysis in China, scholars mainly analyze enterprise debt paying ability through current ratio and quick ratio to Zhang et al. (2010) [23]. Li and Cheng (2013) indicated that the illiquid enterprise usually can't expand production asset in the short term, so it can only uses external financing to solve capital requirements [14]. This is consistent to our research conclusion that the liquidity ratio is negative correlation with asset-liability ratio.

The non-debt tax shield has no significant effect on the capital structure of logistics companies, but it's significant positive (+) to the manufacturing enterprise market asset-liability ratio, and the book asset-liability ratio shows as significantly negative correlation

(-). Xiao (2004) analyzed, the non-debt tax shield and the assets-liabilities ratio are positively related but not significant, probably because the depreciation expense is not only an agent variable to debt tax shield, but also agencies for other variables, this allows the positive and negative effects of depreciation costs to debt levels of cancel each other [24]. Through the empirical study, Chaplinsky and Niehaus (1993) showed that the non-debt tax shield and capital structure are negative correlation [25]. Total assets growth rate has a significant positive correction (+) to capital structure in logistics companies, no significant impact on manufacturing comprises. The packing order theory suggests that good growth enterprises generally exist the problems of lacking funds, internal financing is difficult, and so they tend to use debt financing. The enterprise's asset-liability ratio and the growth rate are positively correlated. Equilibrium theory, however, believed that companies with higher growth rate, often accompanied by a larger bankruptcy cost, so they will use equity financing rather than debt financing. At the same time, Wang and Yang (2002) through regression analysis, indicated that the company's growth rate has just little impact on capital structure in China, she thought that in the capital structure decision making, Chinese listed companies cannot fully consider the company's long-term financing needs [21].

Table 3. Financial Dynamic adjustment Regression Results

	Logistics Industry		Manufacturing Industry	
	MLev	BLev	MLev	BLev
Constant	-0.106	0.635	0.518***	0.403***
	(0.510)	(0.464)	(0.177)	(0.086)
TANG	0.520***	0.281*	-0.238***	-0.014
	(0.188)	(0.145)	(0.057)	(0.028)
M/B	-0.518***	-0.184***	-0.054***	0.000
	(0.129)	(0.065)	(0.005)	(0.002)
ROE	0.039	0.124**	0.000	-0.002***
	(0.099)	(0.053)	(0.001)	(0.000)
SIZE	0.017	-0.025	-0.01	-0.015***
	(0.023)	(0.021)	(0.008)	(0.004)
CUR	0.022**	0.030***	-0.004	-0.008***
	(0.010)	(0.009)	(0.003)	(0.001)
NDTS	-1.564	-0.528	2.505**	-0.311
	(2.577)	(2.394)	(1.009)	(0.495)
TAGR	0.617***	0.170***	0.075***	-0.001
	(0.049)	(0.045)	(0.002)	(0.001)
Adj. R2	Yes	Yes	Yes	yes
Year	0.226	0.061	0.182	0.007
F	27.382	6.894	245.024	8.845
Obs.	632	632	7679	7679

Standard deviations are in parenthesis, * P<0.1; **p<0.05; ***p<0.01

Most of the current research is aimed at the best capital structure, in fact, as a result of the existence of adjustment cost or transaction costs, the company cannot always maintain the best condition of capital structure [26,13]. The capital structure of company is not a static process, because of the speed of the dynamic adjustment and business cycle present a complementary relationship. Therefore, based on the above result of analysis, this paper adds empirical analysis on logistical dynamic adjustment of capital structure, and studies the effect factors on dynamic adjustment of capital structure. Tangibility ratio for the logistics book leverage and market leverage has significantly positive effect (+), is consistent with the static results theoretically, while in manufacturing industry the two are negative correlation (-). The result of tangibility ratio for the dynamic adjustment is different from the static result. In the logistics view, to the best static capital structure, the

more tangibility can lead to the lower the asset-liability ratio, and the tangibility ratio is higher, the results of capital structure's dynamic adjustment is better.

M/B for the logistics industry, the static result is opposite to the dynamic adjustment result, in the dynamic adjustment, the leverage is negatively correlated with this variable (-). And the performance of ROE in the dynamic adjustment, is same as the former, that is, the result is opposite to static result, illustrates logistics firms having better profitability can proceed dynamic adjustment better. From the point of firm size, for large-scale companies, the cost of system accounts for a large proportion in adjustment costs, that is because the adjustment of the large companies not only involves the daily business activities, but also relies on external financing. On the other hand, due to the large companies always date from the transition of state-owned enterprises, their governance mechanism is more complicated, thus there is a higher system costs. But the static result of this variable is consistent dynamic result, the basic effects on logistics are positive (+), suggests that the larger size, the greater the leverage. Contrary to the general results, it does not have significant impact on manufacturing industry, it is the firm size slightly influence dynamic adjustment of capital structure. The liquidity ratio showing solvency and non-debt tax shield having tax effect, the logistics industry of both dynamic adjustment results are different from static, but the influence is basically consistent with the former in manufacturing industry. Firstly, the liquidity ratio is positively correlated with dynamic adjustment (+), suggests the companies with better liquidity can take advantage of their own liquid capital to carry out daily dynamic adjustment, at the same time they have the ability to repay short-term debt ,which is more likely to get short-term loans for dynamic adjustment. Secondly, the effect on non-debt tax shield is negative (-), because of the non-debt tax shield can offset tax, that is, can bring tax benefits, to lead to low leverage ratio, which is consistent with general theoretical analysis results. Growth rate of total assets can reflect the growth ability of company, the results are consistent from the static state and dynamic adjustment, namely positive (+) effect, suggests that enterprises with higher growth rate of total assets, growth is better, and the dynamic adjustment also is faster.

5. Conclusions

This paper selects listed manufacturing enterprises and listed logistics enterprises in Shanghai and Shenzhen as samples, using the Pooled Data model to investigate the financial decision-making characteristics of Chinese logistics enterprises. The test results suggest that the establishment of financing structure, tangibility, enterprise growth, non-debt tax shield and growth rate of total assets have significant industry difference compared with the manufacturing industry. These show the logistics enterprises are unique in establishment of financing structure. However, the test results of logistics enterprises are consistent with manufacturing enterprise in profitability, size and liquidity ratio. From the dynamic adjustment of financing structure, the performance of firm size, profitability, and growth is more prominent, and larger size, better profitability and more rapid growth for logistics enterprises can make enterprises have better ability in terms of financing structure adjustment, meanwhile achieve the optimal effect through quickly adjusting their financing structure. Although tangibility to logistics enterprises has no significant influence in the financing structure establishment, in terms of promoting financing ability, its performance is significant, and has a promoting effect on adjustment.

Overall, financing decisions of Chinese logistics enterprises have a certain difference from the traditional manufacturing enterprises, not only in financing structure establishment, but also in structural adjustment, having more mortgage assets, larger size and better profitability are the powerful conditions of rapid financing adjustment for logistics enterprises. This paper Researches on the financing characteristics of Chinese logistics enterprises, because of Chinese logistics industry started relatively late and the

corresponding data is not sufficient, the qualitative research about corresponding cases will be one of the directions aimed at the financing decision research of logistics enterprises.

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