

# Ownership Structure and Performance in China's listed Logistics Companies

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**Abstract.** The ownership structure is the basis of the development of companies, and performance measurement is critical for company to improve incomes. This study has empirically examined the relationship between the ownership structure and firm performance using a balanced panel of listed logistics companies from 2011 to 2015. We argue that, the largest shareholder's shareholding ratio, state-owned shares ratio, the sum of square of portions held by the first to the tenth shareholders, rate of return on common stockholders' equity, company scale, Tobin Q, total assets turnover and corporate performance do a significantly positive on China's listed logistics performance; the top5 shareholder's shareholding ratio, the top10 shareholder's shareholding ratio, tradable share ratio, debt to assets ratio, undistributed profits per share do a negative side on China's listed logistics performance. Our findings provide an important implication of ownership structure and performance for Chinese listed logistics companies

## Introduction

The Logistics industry, which develops rapidly in China, is a basic and strategic support to the development of China's economy. According to the China Federation of Logistics & Purchasing (CFLP), the only social organization of logistics industry in China, the total amount of social logistics is up to 167.4 trillion RMB in the first three quarters of 2016 with the growth rate 6.1% year by year.

There is extensive research on the relationship between ownership structure and corporate performance. The seminal work by Berle and Means (1932) shows that the control of capital is focused on the managers, but ownership is dispersed in minority shareholders.[1]

In recent years, several studies have begun to discuss the phenomenon that whether or not the ratio of tradable share, the proportion of state-owned shares and performance have a positive or negative correlation. For example, Harold and Belen (2001) find no statistically significant relation between ownership structure and firm performance[2], Wu(2002) report that firm performance is significant U style related with the concentration of ownership structure and internal shareholder[3]. Arunima and SVD (2011) conclude that there is a significant and positive relation between firm performance and promoters holding[4].

Our methodology is underpinned by Yang and Cao(2007). Their standpoint shows that there are different correlations between the shareholding proportion of the biggest shareholder, the top5 shareholder, the Top10 shareholder and the performance of list commercial banks.[5]

This paper is aimed to evaluate the relationship between ownership structure and corporate performance for the China's listed logistics companies, as the logistics company is an important component of logistics industry. In addition, the operating income of listed transportation, storage, and postal companies is 871,895 billion RMB in 2015.

This paper examines the impact of different ownership structures on 57 company performance among China's listed logistics companies. Our work contains the stocks in Chinese stock markets except B-shares. and covers the period from January 2011 through December 2015.

We use economic value added as dependent variable, rather than return on assets, and controlling for rate of return on common stockholders' equity, company scale, Tobin Q, debt to assets ratio, total assets turnover and undistributed profits per share, we find a positive effect of ownership concentration on shareholder value and profitability, but the effect levels off for high ownership shares.

The rest of the paper is organized as follows. Section 1 proposes the research hypothesis. Section 2 reviews the data description. In section 3, it describes the variables and defined. In Section 4, we present hypothesis test and result. Section 5 shows the main empirical findings. Section 6 provides a number of explanations for our findings. Finally, we reach a conclusion in section 7.

## **Hypothesis**

According to the agency theory, shareholders have different attitudes toward spending resources on monitoring, Minority Shareholders take account of free riding from other shareholders. There are different optimal ownership structures among different industries, and various concentration has different effects on corporate governance, In addition different types of corporate governance are determined by different shareholding structures. Merging these perspectives results in a positive influence on firm performance:

Hypothesis 1: The ownership of China's listed logistics companies positively affects firm performance.

As often proposed by some economists, the more concentrated ownership, the greater the incomes. The existing literatures hold the standpoint that the ownership concentration leads to small shareholders' interests infringed by big shareholders. On the other hand, when the proportion of state-owned shares is over a certain degree, it will not only give rise to the decrease in regulatory effectiveness, but it also improves the enterprise management innovation, combining these perspectives:

Hypothesis 2: There is a curvilinear relationship between the ownership of China's listed logistics companies and the performance.

Hypothesis 2a: ownership concentration is measured by the proportion of the biggest shareholder.

Hypothesis 2b: ownership concentration is measured by the proportion of the top5 shareholder.

Hypothesis 2c: ownership concentration is measured by the proportion of the Top10 shareholder.

Hypothesis 2d: There is a curvilinear relationship between the proportion of Shrhfd10 of China's listed logistics companies and the performance.

Hypothesis 2e: The state-owned shares ratio of China's listed logistics companies positively affects company performance.

Hypothesis 2f: The tradable share ratio of China's listed logistics companies positively affects company performance.

## **Data Description**

The data for Chinese stocks is obtained from the Wind database and CSMAR. Stocks from both the Shanghai Stock Exchange and the Shenzhen Stock Exchange are included.

we select data based on the following 3 standards for selection:(1) Company data is only concerned with the A share market. (2) Not including the companies whose data is not full. (3) Not including the ST and \*ST Inc. Finally got the 57 listed logistics Corporation. The companies are shown in Table 1.

**Table1 Selected Firms number table**

Num.	Company name	Num.	Company name	Num.	Company name
1	Chiwan Wharf	20	China Shipping Development	39	Dazhong Transportation
2	Yan Tian Port	21	China Southern Airlines	40	Jin Jiang International Industrial Investment
3	Shenzhen Airport	22	China Eastern Airlines	41	Qiangsheng Holding
4	Citic Offshore Helicopter	23	Shenzhen Expressway	42	Shanghai Jiao Yun
5	Guangdong Provincial Expressway	24	Hubei Chutian Expressway	43	Shanghai Yatong
6	Zhuhai Port	25	Yangtze River Investment	44	Tianjin Port
7	Hunan Investment	26	Jinzhou Port	45	CMST Development
8	Beibuwan Port	27	Hainan Airlines	46	Zhangjiagang Freetrade Science and Technology
9	Xiandai Investment	28	Jiangxi Ganyue Expressway	47	Ningbo Marine
10	Xiamen Port	29	Sinotrans Air Transportation	48	Tangshan Port
11	Jiangsu Aucksun	30	Chongqing Gangjiu	49	China Shipping Haisheng
12	Hainan Strait Shipping	31	Yingkou Port	50	Lianyungang Port
13	Sichuan Fulin	32	Shandong Hi-Speed	51	Ningbo Port
14	Zhuhai Winbase	33	Jiangsu Expressway	52	Sichuan Expressway
15	Hubei Expressway	34	Wuzhou Communications	53	Air China
16	Shanghai International Airport	35	COSCO Shipping	54	Jilin Expressway
17	Anhui Expressway	36	Chongqing Road & Bridge	55	China Shipping Container Lines
18	Rizhao Port	37	Jiangxi Changyun	56	China Merchants Energy Shipping
19	Shanghai International Port	38	Wanjiang Logistics	57	Dalian Port PDA

## Variables and Defined

The variables used in this reseach are tabulated in Table 2 and defined as follows

**Table 2 Variables definition**

Variable type	Variable name	Abbreviation	meaning
Dependent Variable	Economic Value Added	eva	eva= (after-tax operating profit)-( weighted average cost of capital)*(cost of capital )
Independent Variable	The largest shareholder's shareholding ratio	CR1	The number of the largest shareholder's shares/total number of shareholder's shares
	The top5 shareholder's shareholding ratio	CR5	The sum of the top5 shareholder's shares/total number of shareholder's shares
	The top10 shareholder's shareholding ratio	CR10	The sum of the top10 shareholder's shares/total number of shareholder's shares
	state-owned shares ratio	ss	state-owned shares/total shares
	tradable share ratio	ts	tradable shares/total shares
	The sum of square of portions held by the first to the tenth shareholders	Shrhfd10	Reflect the equity restriction
control Variable	Rate of Return on Common Stockholders' Equity	ROE	ROE =net profit/ owner's equity

	company scale	size	ln(The final total assets of company)
	Tobin Q	tobin	Tobin Q to measure
	Debt to assets ratio	dar	dar= total debt/ total assets
	Total Assets Turnover	tat	tat=sales revenue/ total assets
	Undistributed profits per Share	upc	Undistributed profits /capitalization

### Hypothesis Test and Result

The purpose of this study is to provide a comprehensive analysis how firm performance gets impacted by ownership structures. We use performance (eva) at the end of fiscal year as dependent variable and the largest shareholder’s shareholding ratio(CR1), the top5 shareholder’s shareholding ratio(CR5), the top10 shareholder’s shareholding ratio(CR10), state-owned shares ratio(ss), tradable share ratio(ts), we employ the sum of square of portions held by the first to the tenth shareholders as independent Variable. We take Rate of Return on Common Stockholders’ Equity, company scale. The Chinese listed logistics companies’ 5-year overall descriptive statistics of each variable show in Table3. The table shows the number of variables(N), maximal value(max), minimal value(min), mean value(mean) and standard deviation(sd)

Table3 Descriptive statistics of each variable

variable	N	max	min	mean	sd
eva	285	$3.6 \times 10^9$	$-5.7 \times 10^9$	$-6.7 \times 10^7$	$1.1 \times 10^9$
ROE	285	32.38	-58.27	7.92	7.316
Tobin	285	5.189	0.77	1.47	0.64
size	285	16.88	11.36	13.89	1.24
CR1	285	79.47	14.11	43.19	13.51
CR5	285	91.09	24.92	61.61	16.84
CR10	285	91.48	26.53	63.89	16.75
Shrhfd10	285	0.632	0.03	0.231	0.122
ss	285	0.83	0	0.10	0.19
ts	285	1	0.15	0.88	0.20
dar	285	0.83	0.01	0.46	0.18
tat	285	2.34	0.03	0.42	0.38
upc	285	7.53	-0.73	1.36	1.28

Table3 reports some results that: (1) Economic Value Added (eva) ranges from  $-5.7 \times 10^9$  to  $3.6 \times 10^9$ , the deviation is high. (2) Rate of Return on Common Stockholders’ Equity(ROE) (3) Tobin Q goes smoothly during 2011 and 2015.

The means of state-owned shares ratio(ss) of Chinese listed logistics companies is close to 0.10. Nevertheless, the tradable share ratio(ts) is up to 0.88. The state-owned shares ratio is lower and lower. (3) the means of the largest shareholder’s shareholding ratio(CR1) reaches 0.44, It indicates that ownership structure of China’s listed logistics companies is very concentrated. But the top5 shareholder’s shareholding ratio(CR5) and the top10 shareholder’s shareholding ratio (CR10) is similar. While the means of Debt to assets ratio(dar) and Total Assets Turnover(tat) are nearly 0.50, and the means of Undistributed profits per Share(upc) is 1.36.

Table4 Average changing tendency of eva (2011-2015)

year	N	mean	25%	50%	75%
2011	57	$1.96 \times 10^8$	$-4.85 \times 10^6$	$1.09 \times 10^8$	$4.06 \times 10^8$
2012	57	$-1.64 \times 10^7$	$-5.12 \times 10^7$	$2.29 \times 10^7$	$2.85 \times 10^8$
2013	57	$-2.28 \times 10^8$	$-6.17 \times 10^7$	$1.29 \times 10^7$	$1.66 \times 10^8$
2014	57	$-1.52 \times 10^8$	$-1.72 \times 10^8$	$-8.63 \times 10^5$	$1.60 \times 10^8$
2015	57	$-1.38 \times 10^8$	$-1.30 \times 10^8$	$-8.17 \times 10^6$	$1.31 \times 10^8$

As shown in Table 4, the eva decreased from  $1.96 \times 10^8$  in 2011 to  $-2.28 \times 10^8$  in 2013, and rose from  $-1.52 \times 10^8$  in 2014 to  $-1.38 \times 10^8$  in 2015. The results of percentile are given in Table4. We can find that the eva is negative in 25th percentile from 2011 to 2015;At the same time, the eva is positive in 50th percentile during 2011 and 2013,but it is negative in 2014 and 2015, this is in line with the overall trend of market changes. The volume of international trade falls off in recent two year which influence the total asset yields of logisitics listed companies,but the eva is positive in 75th percentile at last.

Table5 The changing trend of the CR1(2011-2015)

year	N	mean	25%	50%	75%
2011	57	43.19	32.51	42.22	51.17
2012	57	43.81	34.46	42.27	51.01
2013	57	43.73	32.52	41.9	51.33
2014	57	43.31	33.67	41.09	51.33
2015	57	41.92	32.52	40.37	50.91

In Table5,it can be noticed that, from 2011 to 2012, the largest shareholding ratio(CR1) increased from 43.19% in 2011 to 43.81% in logistics listed companies in 2012, to 43.73% and 41.92% respectively. The results of percentile are shown in Table5. It can seen that the largest shareholding ratio(CR1) is about 33% in 25th percentile among 2011 and 2015;meanwhile, the largest shareholding ratio(CR1) decreas gradually in 50th percentile, but it is around 51% in 75th percentile , the change of the largest shareholding ratio(CR1) is not significant, the first major shareholders began to decentralize the share ownership structure.

Table6 The changing trend of the CR5(2011-2015)

year	N	mean	25%	50%	75%
2011	57	62.00	54.72	63.08	72.75
2012	57	61.28	53.43	60.94	74.09
2013	57	62.99	53.02	63.74	74.19
2014	57	61.43	50.54	60.94	74.07
2015	57	60.33	46.19	60.52	73.97

As you can see from Table6, 2011to 2015, in Chinese logistics listed companies the top 5% largest shareholding ratio(CR5) rose from 62.00% in 2011 to 62.99% in 2013. Subsequently, it fell to 60.33% in 2015. The results of percentile are given in Table6, it shows that the top 5% largest shareholding ratio(CR5) reduces from 54.72% to 46.19% in 25th percentile,which fell gradually. The top 5% largest shareholding ratio(CR5) reached 63.08% in 50th percentile in 2011.However, it came down arriving at 60.94% in 2012; The top 5% largest shareholding ratio(CR5) reached the peak value 63.74% in 2013,but fell to 60.52% in 50th percentile in 2015. The top 5% largest shareholding ratio(CR5) rose from 72.75% in 75th percentile in 2011,which is the minimum during 2011 to 2015,to 74.19% in 2013.In the end, the top 5% largest shareholding ratio(CR5) reduced to 73.97% in 2015.

Table7 The changing trend of the CR10(2011-2015)

year	N	mean	25%	50%	75%
2011	57	64.04	56.19	65.49	76.78
2012	57	63.74	55.27	64.86	77.24
2013	57	64.79	56.83	66.75	77.88
2014	57	63.98	54.38	65.2	76.21
2015	57	62.92	49.96	63.22	76.49

As is seen in the Table7 given above, the top 10% largest shareholding ratio(CR10) decreased from 64.04% in 2011 to 63.74% in 2012,and arrived at 62.92% in 2015 ultimately . The results of percentile are given in Table7. The top 10% largest shareholding ratio(CR10) reached 56.19% in 25th percentile in 2011, but it reduced to 49.96% in 2015; The top 10% largest shareholding ratio(CR10) was about 65% in 50th percentile in the period from 2011 to 2015; The top 10% largest shareholding ratio(CR10) reached 76.5% in 75th percentile among 2011 and 2015.

Table8 The changing trend of the Shrhfd10 (2011-2015)

year	N	mean	25%	50%	75%
2011	57	0.23	0.17	0.23	0.28
2012	57	0.24	0.17	0.23	0.28
2013	57	0.24	0.15	0.23	0.29
2014	57	0.23	0.14	0.23	0.30
2015	57	0.23	0.14	0.22	0.28

As can be seen in Table8, 2011 to 2015, in listed companies in the logistics, the sum of square of portions held by the first to the tenth shareholders(Shrhfd10) kept the same percentage, which is within the range 0.23 to 0.24. That, among 2011 to 2015 Chinese logistics listed companies' the sum of square of portions held by the first to the tenth shareholders(Shrhfd10) was stable. The results of percentile are given in Table8. The sum of square of portions held by the first to the tenth shareholders(Shrhfd10) fell from 0.17 to 0.14 in 25th percentile, but the sum of square of portions held by the first to the tenth shareholders(Shrhfd10) reached 0.28 in 75th percentile, that is to say, the equity was not restricted significantly.

Table9 shows Pearson's correlation of each variable in Chinese listed logistics companies from 2011 to 2015.

Table9 Pearson's correlation of the variables in 2011-2015

	eva	ROE	ss	ts	CR1	CR5	CR10	Shrhfd10
eva	1							
ROE	0.463***	1						
ss	0.087	0.019	1					
ts	0.121**	-0.056	-0.921***	1				
CR1	-0.118**	0.036	0.337***	-0.282***	1			
CR5	0.085	0.123**	0.168***	-0.155***	0.488***	1		
CR10	-0.057	0.150**	0.164***	-0.174***	0.457***	0.975***	1	
Shrhfd10	-0.046	0.067	0.333***	-0.269***	0.922***	0.668***	0.639***	1

Standard errors in parentheses \*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Table9 indicates the correlation coefficients between each variable. We can find that : (1)state-owned shares ratio(ss) have a negative correlation with the tradable share ratio(ts), and state-owned shares ratio(ss) has a positive effect on the largest shareholder's shareholding ratio(CR1), the top5 shareholder's shareholding ratio(CR5), the top10 shareholder's shareholding ratio(CR10) and the sum of square of portions held by the first to the tenth shareholders(Shrhfd10).(2) tradable share ratio(ts) have a negative correlation with the largest shareholder's shareholding ratio(CR1), the top5 shareholder's shareholding ratio(CR5), the top10 shareholder's shareholding ratio(CR10) and the sum of square of portions held by the first to the tenth shareholders(Shrhfd10).

This study uses Economic Value Added (eva) to measure the market-based performance. In Table 9, Economic Value Added (eva) is positively related with state-owned shares ratio(ss), and it is also positively related with state-owned shares ratio(ss). Consequently, We can accept the hypothesis1. In other word, China's listed logistics companies' ownership always positively affects firm performance.

In order to examine the other hypothesis above. We consider performance variable, which is Economic Value Added (eva), as dependent variable. Then it regressed on various independent variables and control variables. The Equations are given below:

$$\text{Eq1: Performance}_{it} = a + b1(\text{CR1})_{it} + b2(\text{CR1})_{it}^2 + \gamma X_{it} + \delta i + \varepsilon_{it} \quad (1)$$

$$\text{Eq2: Performance}_{it} = a + c1(\text{CR5})_{it} + c2(\text{CR5})_{it}^2 + \gamma X_{it} + \delta i + \varepsilon_{it} \quad (2)$$

$$\text{Eq3: Performance}_{it} = a + d1(\text{CR10})_{it} + d2(\text{CR10})_{it}^2 + \gamma X_{it} + \delta i + \varepsilon_{it} \quad (3)$$

$$\text{Eq4: Performance}_{it} = a + e1(\text{Shrhfd10})_{it} + e1(\text{Shrhfd10})_{it}^2 + \gamma X_{it} + \delta i + \varepsilon_{it} \quad (4)$$

$$\text{Eq5: Performance } it = a + f1(ss)it + f2(ss)it^2 + \gamma Xit + \delta i + \varepsilon it \quad (5)$$

$$\text{Eq6: Performance } it = a + g1(ts)it + g2(ts)it^2 + \gamma Xit + \delta i + \varepsilon it \quad (6)$$

$Xit$  means ROE size Tobin dar tat and upc.

we apply Hausman test for statistically significant differences in the coefficients on the time-varying explanatory variables. In the end, a rejection using the Hausman test is taken to mean that the random effects assumption is false, and then the fixed effects estimates are used.

Table 10 Regression analysis of the Economic Value Added (eva)

	(1)	(2)	(3)	(4)	(5)	(6)
	eva	eva	eva	eva	eva	eva
CR1	$6.2 \times 10^7$ ***					
	$(2 \times 10^7)$					
CR1_2	$-6 \times 10^5$ ***					
	$(2 \times 10^5)$					
CR5		$-4.9 \times 10^7$				
		$(3.9 \times 10^7)$				
CR5_2		$4.1 \times 10^5$				
		$(3.4 \times 10^5)$				
CR10			$-9.8 \times 10^7$ *			
			$(5.4 \times 10^7)$			
CR10_2			$7.8 \times 10^5$ *			
			$(4.6 \times 10^5)$			
Shrhfd10				$2 \times 10^9$		
				$(1.7 \times 10^9)$		
Shrhfd10_2				$-2.8 \times 10^9$		
				$(2.2 \times 10^9)$		
ss					$1.2 \times 10^8$	
					$(2.4 \times 10^8)$	
ts						$-8.3 \times 10^7$
						$(2.2 \times 10^8)$
ROE	$6.7 \times 10^7$ ***	$6.5 \times 10^7$ ***	$6.6 \times 10^7$ ***	$6.5 \times 10^7$ ***	$6.5 \times 10^7$ ***	$6.5 \times 10^7$ ***
	$(1.8 \times 10^7)$	$(1.7 \times 10^7)$	$(1.8 \times 10^7)$	$(1.7 \times 10^7)$	$(1.7 \times 10^7)$	$(1.8 \times 10^7)$
size	$6.6 \times 10^7$	$-2.4 \times 10^7$	$-5.8 \times 10^8$	$4.4 \times 10^7$	$3.1 \times 10^7$	$3.2 \times 10^7$
	$(1.2 \times 10^8)$	$(1.6 \times 10^8)$	$(1.7 \times 10^8)$	$(1.5 \times 10^8)$	$(1.4 \times 10^8)$	$(1.4 \times 10^8)$
Tobin	$6.7 \times 10^7$	$5.3 \times 10^7$	$5.9 \times 10^7$	$5.5 \times 10^7$	$5.4 \times 10^7$	$5.3 \times 10^7$
	$(5.0 \times 10^7)$	$(5.2 \times 10^7)$	$(5.8 \times 10^7)$	$(5 \times 10^7)$	$(5.3 \times 10^7)$	$(5.4 \times 10^7)$
dar	$-1.4 \times 10^9$ **	$-1.2 \times 10^9$ *	$-1.0 \times 10^9$ *	$-1.4 \times 10^9$ **	$-1.2 \times 10^9$ *	$-1.2 \times 10^9$ *
	$(6.4 \times 10^8)$	$(6.3 \times 10^8)$	$(5.9 \times 10^8)$	$(6.7 \times 10^8)$	$(6.3 \times 10^8)$	$(6.4 \times 10^8)$
tat	$4.7 \times 10^8$ **	$4.5 \times 10^8$ *	$4.6 \times 10^8$ *	$4.5 \times 10^8$ *	$4.3 \times 10^8$ *	$4.3 \times 10^8$ *
	$(2.3 \times 10^8)$	$(2.4 \times 10^8)$	$(2.5 \times 10^8)$	$(2.4 \times 10^8)$	$(2.4 \times 10^8)$	$(2.4 \times 10^8)$
upc	$-1.1 \times 10^8$	$-1.2 \times 10^8$	$-1.2 \times 10^8$	$-1.1 \times 10^8$	$-9.7 \times 10^7$	$-9.9 \times 10^7$
	$(1.2 \times 10^8)$	$(1.2 \times 10^8)$	$(1.2 \times 10^8)$	$(1.2 \times 10^8)$	$(1.1 \times 10^8)$	$(1.1 \times 10^8)$

a	$-2.5 \times 10^9$	$1.5 \times 10^9$	$3.4 \times 10^9$	$-9.8 \times 10^8$	$-5.8 \times 10^8$	$-5.1 \times 10^8$
	$(1.7 \times 10^9)$	$(2.7 \times 10^9)$	$(3.1 \times 10^9)$	$(1.9 \times 10^9)$	$(1.7 \times 10^9)$	$(1.8 \times 10^9)$
N	285	285	285	285	285	285
R <sup>2</sup>	0.368	0.360	0.367	0.358	0.357	0.356
adj. R <sup>2</sup>	0.349	0.341	0.349	0.339	0.340	0.340

Standard errors in parentheses \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

The results are summarized in Table 10. Each column reports different regressions. Meanwhile, each row reports a coefficient estimate and standard error, p-value or other information, the standard error exceeds 0.368, adjust standard error exceeds 0.349.

Column(1) in Table 10 presents results for the panel data regression of the largest shareholder's shareholding ratio(CR1), Rate of Return on Common Stockholders' Equity(ROE), company scale (size), Tobin Q(tobin), Debt to assets ratio(dar), Total Assets Turnover(tat) and Undistributed profits per Share(upc). The coefficient of the largest shareholder's shareholding ratio(CR1) is positive( $6.2 \times 10^7$ ) and the column (1) estimate is statistically significantly different from zero at the 1% level: Because of this estimation, increasing the largest shareholder's shareholding ratio(CR1) results in a higher Economic Value Added (eva). Therefore, the ownership concentration could be measured by the proportion of the biggest shareholder, supporting the hypothesis 2a test.

However, the regression in column(2) suggest that the negative coefficient between Economic Value Added (eva) and the top5 shareholder's shareholding ratio(CR5) is  $-4.9 \times 10^7$ , and the column (2) estimate is not statistically significantly. Consequently, the ownership concentration could not be measured by the proportion of the top5 shareholder, rejecting the hypothesis 2b test.

The result in column(3) is not the same as in column(2), for the column (3) estimate is statistically significantly different from zero at the 10% level. Hence the ownership concentration could be measured by the proportion of the top10 shareholder, supporting the hypothesis 2c test.

According to the estimate in column(4), the coefficient on The sum of square of portions held by the first to the tenth shareholders(Shrhfd10) is positive( $2 \times 10^9$ ) and the column (4) estimate is not statistically significantly different from zero at the 10% level, ownership concentration could be measured by Herfindahl10 index, passing the hypothesis 2a test. At the same time, the proportion of Shrhfd10 is curvilinear relationship with firm performance, rejecting the hypothesis 2d test

As reported in column (5) and column(6), the results in the two columns are not pass the T-tset. It shows that state-owned shares ratio(ss) and tradable share ratio(ts) are not statistically significantly, but state-owned shares ratio(ss) positive influence on Economic Value Added (eva), supporting the hypothesis 2e test. On the other hand, tradable share ratio(ts) negative influence on Economic Value Added (eva), rejecting the hypothesis 2f test.

## Conclusion and Further Discussion

This study has empirically examined the relationship between the ownership structure and firm performance using a balanced panel of listed logistics firms from 2011 to 2015. Base on the results we obtained, the main conclusions of this article are as follows:

The model structure indicates that the largest shareholder's shareholding ratio(CR1) is a major contributon to the firm performance. There is a significant and positive relation between firm performance and the largest shareholder's shareholding ratio. Shares of holdings of the largest shareholder reflect the first shareholder thickness composing in reply stock right in enterprise of the ability making policy. Proprietary right is concentrating the all-important effect on a company's decision up. If height , proprietary right balance are insufficient very much, it slips up very easy to lead to policy; It makes a decision-making lose efficiency if proprietary right thickness is very low. The largest shareholder's shareholding ratio(CR1) holds the share proportion average has 43.19%. Company scale is the corporate assets scale. Complying with the model result , it can be seen,

logistics industry listed company assets scale has a obvious effect company's managing achievement. Assets scale is bigger , the higher total assets return rate bring back.

There are different degrees of factors affecting the performance. According to the results of the model, we can find that Total Assets Turnover (tat) is the most significant factors affecting Chinese listed companys' performance, and the second place factor is Rate of Return on Common Stockholders' Equity(ROE) , the least significant factor is the Tobin Q(tobin). It shows strong profitability can contribute to higher performance.

The top 5 largest shareholder's shareholding ratio (CR5), the top 10 largest shareholder's shareholding ratio (CR10) and Undistributed profits per Share(upc) have negative correlations with company performance. The top 5 largest shareholder's shareholding ratio(CR5) and t top 10 largest shareholder's shareholding ratio (CR10) reflect the company's authority checks and balances. The higher authority checks and balances are, the bigger conflicts will exist among big shareholders.

#### Discussion

Lots of factors affect Chinese listed logistics company performance, and shareholder's shareholding ratio of the largest shareholder's shareholding ratio(CR1) in the ownership structure has positive influence. As a result, Chinese listed logistics companies get the first largest shareholder hold high shareholding ratio in a certain range so as to make sure to manage and supervise the company more effectively.

Company size has a positive correlation with corporate performance, so expanding the size of the logistics company in a certain range will acquire higher returns.

From the result of the regression, State-owned shares ratio(ss) is positive correlation with Economic Value Added (eva), meanwhile tradable share ratio(ts) is negative correlation with Economic Value Added (eva), Chinese listed logistics companies should concentrate on State-owned shares ratio(ss), in order to improve company performance.

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