ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

THE IMPACTS OF SHAREHOLDINGS OF INSURANCE INSTITUTIONAL INVESTORS ON THE CAPITAL PROFITABILITY OF LISTED COMPANIES-- BASED ON THE ANALYSIS OF PSM

Xiao Long-jie, Li Yang-yang

College of Economics and Management, Nanjing University of Aeronautics and Astronautics, Nanjing 210016, China

ABSTRACT

Since 2015, the behavior of insurance companies' licensing of listed companies has become a hot topic for insurance industry, banking industry, regulatory agencies, and ordinary investors. The behavior of insurance institutional investors holding shares has a deep impact on the performance of listed companies and capital efficiency. This article takes a sample of Shanghai and Shenzhen A-share listed companies from 2013 to 2016, adopts propensity score matching method to eliminate the endogenous relationship between variables, and examines the influence of insurance institutions' shareholding on company performance from the perspective of capital profitability. The study finds that the earnings per share of listed companies with insurance institutions holding shares are higher than those of other types of listed companies in the current year. The holding of shares by insurance institutional investors can significantly increase the capital profitability of listed companies.

Keywords: Insurance Institutional Investors; Capital profitability; Listed Company Performance; EPS; Propensity Score Matching Method

I. INTRODUCTION

As an important institutional investor, an insurance company differs from a securities investment fund mainly in the characteristics of value preservation, security, and stability, and pays more attention to the actual value of the company. It prefers long-term investment rather than short-term speculation. With the gradual liberalization and improvement of China's capital market, insurance funds are increasingly participating in the securities market. In particular, the revised new policy of the Insurance Law of 2015 confirms that insurance funds are allowed to hold shares of listed companies, and The Notice of Institutional Stock Investment Business stipulates the threshold for insurance funds to enter the stock market. The solvency adequacy ratio is used as an indicator to monitor the stock investment of insurance funds, which further regulates the

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

investment of insurance institutions. In 2017, the investment income of insurance companies showed a sharp reversal, especially in the stock investment. The comprehensive return rate of investment in the first and second quarters reached 4.0% or more, and exceeded 5.0% in the third quarter. The revenue reached 118.398 billion yuan, a year-on-year increase of 355.46%. With the rise of value stocks, the allocation of insurance funds in equity assets continued to increase, currently reaching a level of around 13%.

Although many scholars have obtained theoretical or empirical analysis to conclude that institutional investors can increase corporate performance, such as Liu Xiaoxuan (2001), Wu Shaofan and Xia Xinping (2004), Du Ying and Liu Liguo (2002), Bu Zhengxue (2003)) et al. found that corporate shareholding has certain governance effects. Shareholder activists such as Shleifer and Vishny (1986), Bushee (2014) and Han Qing and Wang Hua (2014) believed that institutional investors can increase their performance. However, whether the insurance institution's shareholding can improve the performance of listed companies and capital profitability needs to be further explored. One of the important reasons is that when examining the impact of insurance institution shareholding on company performance, there is a sample selection proposed by Heckman in 1979. The "Sample-Selection Bias" problem, even if it is observed that the listed companies that the insurance institutions hold are performing better, on the one hand, this may be due to the large scale and high production efficiency of such companies, rather than the inevitable result of insurance institutions holdings. On the other, insurance institutional investors prefer the listed companies that have good performance.

Since the OLS estimation used in traditional research will bring about sample self-selection, this paper separates the effect of insurance institution shareholding on company performance from many potential factors, thereby eliminating the endogenous effects between variables. And in order to solve the continuity problemof data, this paper adopts the nearest neighbor propensity score matching method within caliper. In the indicators for measuring corporate performance, this paper selects the EPS that reflects the company's capital profitability and operating results as a perspective, and examines whether the insurance institutions' shareholding behavior can enhance the capital profitability of listed companies with using the 2013-2016 Shanghai and Shenzhen A-share listed companies as research samples.

II. LITERATURE REVIEW

www.ijsser.org

Domestic and foreign scholars have done many researches on institutional investors, especially the researches on the relationship between institutional investors' shareholding and company performance. Shareholder activists such as Smith (1996), Gillan, and Starks (2007) believe that institutional investors actively participate in the control and balances between internal shareholders, and improve the management and operation of listed companies by buying and

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

selling shares and leveraged buyouts. Shareholders such as Useem (1993) and Daily (1996) believe that institutional investors are not effective in improving corporate governance. They are merely "bystanders" and cannot play the role of corporate governance. Hellman (2005) finds that institutional investors mainly rely on external information with higher risks which has a negative effect on company management and is not conducive to improving corporate governance. Most of the early domestic researches believe that institutional investors are subject to their own conditions, institutional environment and other factors, so they can not play a role in corporate governance, and they can only act as a "bystander", such as Li Xiangqian (2002) and Huang Xingnian (2006) believe that institutional investors lack talent in corporate governance, and the government's administrative intervention makes them difficult to become a truly qualified supervisor. However, with the development and improvement of China's capital market, more and more studies believe that institutional investors can play a role in governance. Yao Yi and Liu Zhiyuan (2007), Shi Meijuan and Tong Weihua (2009) all found that institutional investors actively monitor corporate behavior. In corporate governance, it is possible to reduce agency costs and improve company performance, so in this way, institutional investor is an active investor. Similarly, Wang Yule (2016) uses a stochastic frontier model and threshold regression test to find that institutional investors can significantly enhance the company's value.

The main representatives of insurance institutions in foreign countries are McDiarmid (1949), Badrinath and Kale (1996), Neenan (1957), Farrar and Girton (1980), Abarbanell and Bushee (2003), and Biray (2005). It is pointed out that insurance institutions usually choose large, longestablished and well-performing companies to invest. Biray (2005) also found that five types of institutional investors, including insurance institutions, have gained large investment income in the securities market, but because insurance institutional investors are more restricted by insurance regulations, they are more focused on fixed-income securities investment. Domestic researches on insurance institutions mainly focus on investment in insurance funds, and a small number of scholars have conducted researches on insurance companies' participation in corporate governance. Zhang Ning (2005) found that the participation of insurance institutional investors in corporate governance has led to a significant increase in the net present value of listed companies, an increase in insurance investment income, and a decline in the moral hazard of listed company managers, thereby reducing agency costs. Wang Yuanyuan and Ge Houyi (2017) studied the stock ownership preferences of property and life insurance companies. They believe that companies with good operating performance, large company scale, strong development capability, high stock returns, and high circulation ratio are more attractive to be invested. When life insurance institutions act as companies' major shareholder, the company's next period of operating performance has been significantly improved. Li Yashi's (2017) research also believes that insurance companies are more biased towards large-cap blue-chip stocks, and the long-term shareholding of insurance companies is conducive to stable stock prices, but if the stock market

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

fluctuates as a whole, buying stocks by insurance companies will increase the stock price volatility.

Kang Yi (1994) believes that earnings per share (EPS) is an important financial indicator for evaluating the performance of listed companies, because earnings per share (EPS) simply and clearly reflect the company's performance, and it is comparable. Balsam and Lipka (1998) found that earnings can explain stock prices, and earnings per share (EPS) is significantly correlated with stock prices. Song Xiuyun (1998) proposed in early research that both managers and investors must pay attention to the analysis of the profitability of stock companies based on earnings per share. Yan Hua (2008) proposed that earnings per share can reflect the company's operating results, measure the profitability of common stocks and investment risks, and is an important financial indicator. Jia Wen, Cai Feiying, Guo Mengyang (2014), through the study of retail and commercial listed companies in the Shanghai and Shenzhen A-shares, found that earnings per share can reflect the profitability of listed companies and is the core indicator of stock pricing.

Taken together domestic and international research findings: First, the endogenous problem caused by the bias of sample selection is "sample selection bias", because institutional investors themselves have preferences for companies with better performance, so it is difficult to answer "whether it is the institutional shareholdings have improved the company's performance, or the better company performance has attracted institutional shareholdings". Second, most domestic scholars do not classify institutional investors, but various institutional investors play different roles in company's performance because of their own characteristics. Especially for institutional investors like insurance companies. Third, the existing researches focus on the relationship between institutional investors' shareholdings and the performance of listed companies, but has not yet covered the relationship between the shareholdings of insurance institutional investors and the company's capital profitability.

From the perspective of earnings per share(EPS), this paper is to measure the capital profitability of listed companies. In order to solve the problem of "sample selection bias", the propensity score matching method (PSM) is adopted to eliminate the endogenous effects between capital profitability and condition variables existing in listed companies. In the meantime, the nearest neighbor matching method within caliper is adopted to solve the problem of data continuity, further enriching the empirical data of the relationship between institutional investors and listed companies.

III. RESEARCH METHOD ANALYSIS AND SAMPLE SELECTION

(1) Research method analysis

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

Insurance institution is only a part of institutional investors. In view of the stability, security and liquidity of insurance institutions, the proportion of insurance companies holding other companies will not be very high, so this paper take insurance institutions with a shareholding ratio greater than 0 as the research object, and the rest are other types. Through the research of earnings per share of previous studies, it is found that the earnings per share can reflect the capital profitability of a company. Therefore, from the perspective of earnings per share, this paper studies the difference of capital profitability of the listed companies between the state of being held shares by insurance institutional investors and other types of investors.

Assume that D=1 represents insurance institutional investors holding shares, and D=0 is the other. Y_1 represents the capital profitability of the companies held shares by the insurance institutions, and Y_0 represents the capital profitability of other types of companies. The equation (1) is used to measure the difference in capital profitability of a same company in these two states. (ie ATE, Average Treatment Effect):

$$ATE = E(Y_1|D_i = 1) - E(Y_0|D_i = 0)$$
(1)

But in fact, this is an "anti-logic" problem, which does not exist in practice, because a company cannot be held more than 0% shares and 0% shares by insurance institutions at the same time. That is to say, if the company is held shares by insurance institutional investors, it cannot be obtained $E(Y_0|D_i=1)$. However, if the equation (1) is directly used to measure the difference in capital profitability of listed companies held shares by insurance institutional investors and other types of investors, there will be "sample selection bias", because insurance institutions are more likely to choose companies with good financial indicators. Thus, the companies held shares by insurance institutions and other types investors have differences in financial indicators.

In order to solve the above "anti-logic" problem, this paper mainly uses the "Propensity Score Matching Method" (PSM) proposed by Rosenbaum and Rubin (1983). The basic idea of this method is to evaluate the effect of a treatment through a special method. In this method, a plurality of features are condensed into one index--the propensity score, according to which the experimental group matches the control group, and the experimental group is a collection of companies which are held shares by insurance institutions more than 0. The indicators of the two groups are basically close other than whether they are held shares by insurance institutions or not. Then this paper analyses the difference between the experimental group and the control group in terms of capital profitability.

The specific steps of the PSM method are as follows:

Volume:03, Issue:11 "November 2018"

Step 1: Find the best conditional variables or covariates, which are important factors in determining whether a company is held shares by an insurance institution, and thus divide the treatment group and the control group. The experimental group is the collection of companies with the ratio of shares held by insurance institutions greater than 0, and the control group is a collection of companies with a shareholding ratio of insurance institutions equals to 0. Considering the preference of insurance institutional investors, this paper chooses the following covariates as matching variables, and chooses EPS as the index of the company's capital profitability, which is also the final explanatory variable, as shown in Table 1:

Table 1: Names and definitions of the matching variables and the interpreted variables

NO.	Name and mark	Definition		
1	Insurance	Virtual variable,1 means the insurance institution holds its share, otherwise 0		
2	Size	The natural logarithm of the company's total assets		
3	asset-liability ratio (Lev)	liability/total asset		
4	Turnover	Main business cost / net inventory		
5	Main business profitability ratio (PM)	Main business profitability/Main business income		
6	Expense ratio (Expenses)	(sales expense+overhead expense+financial expense)/Main business income		
7	Return on total assets (ROA-1)	Net profit/Total asset		
8	Growth ratio of sales revenue (Sales growth)	Change in operating income/Previous business income		
9	Growth ratio of total asset (Assets growth)	Change in total asset/previous total asset		
10	The shareholding ratio of the largest shareholder	The number of shares held by the company's largest shareholder / Total number of shares of		

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

	(Top1)	the company	
11	Proportion of the top three shareholders (Top3)	The number of shares held by the company's top three shareholders / Total number of shares of the company	
12	The index Z (Z)	The ratio of the shareholding proportion of the company's largest shareholder and second largest shareholder	
13	β	Take data from the last 24 months of the statistical period	
14	The ratio of circulating stocks (LSR)	Circulating shares / Total share capital	
15	Return on invested capital (ROIC)	Net profit / Total investment capital	
16	Earnings per share (EPS)	Reflecting the profitability of listed companies' capital operations	

Step 2: Calculate the propensity score of each enterprise in the experimental group and the control group according to the condition variable (or matching variable), that is, in the case of giving the sample characteristics before the treatment, the conditional probability of one company "being held shares by insurance institutions". As shown in equation (2):

$$p(X) = P_r(D_i = 1 \mid X) = E(D_i \mid X)$$
 (2)

In this equation, D_i is the indicator function, if a company is held shares by insurance institutions, then $D_i = 1$, otherwise $D_i = 0$. This paper also uses the "Average Treatment Effect on ATT" as shown in equation (3) to measure the average processing effect of a listed company held shares by insurance institutions, thus reducing the selection error:

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

$$ATT$$

$$= E(Y_1 - Y_0 \mid D_i = 1)$$

$$= E\{E[Y_1 - Y_0 \mid D_i = 1, p(X_i)]\}$$

$$= E\{E[Y_1 \mid D_i = 1, p(X_i)] - E[Y_0 \mid D_i = 0, p(X_i)]D_i = 1\}$$
(3)

Among them, Y_1 and Y_0 respectively represent the capital profitability of a same company in the case of being held shares by insurance institutions and being not held shares by insurance institutions.

Since the propensity score in the empirical analysis cannot be observed, it is necessary to use a probabilistic model such as logit or probit for estimation. Referring to the research of Dehejia and Wahba (2002) and Becker and Ichino (2002), and based on the matching variables in Table 1 above, the logit model is used to calculate the propensity score and estimate the probability of one company being held shares by insurance institutions. As shown in equation (4):

$$p(X_i) = P_r(D_i = 1 | X_i) = E(D_i | X_i) = \frac{\exp(\beta X_i)}{1 + \exp(\beta X_i)}$$
(4)

In the above formula, X_i is a vector constituted by a characteristic variable which affects whether a company is held shares by insurance institutions. It is also a matching variable for research selection, and β is a parameter vector correspondingly. $P_r(D_i=1|X_i)$ indicates the probability that a company is held shares by insurance institutiosn, and is also the propensity score of each sample.

Step 3: Match based on the propensity score

The PSM model uses the regression coefficient of the logit model as the weight, and each company held shares by insurance institutions is matched with the company held shares by other types of investors which has the closest propensity score with the company held shares by insurance institutions. The calculation of the weights is shown in equation (5):

$$D_i = \alpha_1 x_{i1} + \alpha_2 x_{i2} + \dots + \alpha_n x_{in} + \varepsilon_i$$
 (5)

In this formula, D_i is the above index function and is also a research variable, that is, in the experimental group, the value of the enterprise's D_i is 1, and in the control group, the value of the enterprise's D_i is 0; X_{in} is the matching variable (or control variable) selected in the table

www.ijsser.org

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

(1), and α_n is correspondingly the regression coefficient. Then this paper uses the regression coefficient obtained by equation (5) to calculate the propensity score PS_i of the enterprises according to formula (6):

$$PS_{i} = \alpha_{1} x_{i1} + \alpha_{2} x_{i2} + \dots + \alpha_{n} x_{in}$$
 (6)

In theory, two samples with the same propensity score should be found, and then the average processing effect of the participants should be calculated. However, it is actually difficult to find two samples with the totally same propensity score, so this paper adopts nearest-neighbor matching within caliper to refine the research method. The principle of nearest neighbor matching within caliper is that based on the propensity score of the companies which are held shares by institution institutions in the experimental group, this paper pairs them with other types of companies which have the closest propensity score from the control group within a given caliper value range. Let T and C denote the collections of companies held shares by insurance institutions and other types of companies, Y_i^T and Y_j^C respectively denote the capital profitability of the two groups of companies, and C_i denote the set of matching samples of other types of companies corresponding to the i-th observation value of the company held shares by the insurance institutions. The corresponding propensity score is PS_i and caliper value is r. The matching principle of nearest neighbor matching within caliper is as shown in equation (7):

$$C(i) = \{ PS_{j} | | | PS_{i} - PS_{j} | | < r \}$$
(7)

Step 4: Estimate the mean difference (ATT) of the entire sample

There is no significant difference between the companies held shares by insurance institutions and other types of companies in matching variables. The only difference between them is whether they are held shares by insurance institutions or other types of investors. The weights calculated according to formula (5) are used to calculate the difference in capital profitability between the experimental group and the control group, that is the average effect (ATT) in the propensity score matching method, and it is calculated as follows:

$$ATT = \frac{1}{N^T} \sum_{i \in T} [Y_i^T - \frac{\sum_{i \in C} Y_n^C w_{in}}{\sum_{i \in C} w_{in}}]$$

$$(8)$$

The superscript T represents the experimental group, the superscript C represents the control group, Y_i is an indicator of the captial profitability of the enterprise--the earnings per share (EPS), and N^T is the experimental group--the number of companies held shares by nsurance institutions.

(2) Sample selection

This paper takes the Shanghai and Shenzhen A-share listed companies in year 2013-2016 as the research sample, and the most financial data of the companies comes from the WIND database. The sample screening follows the three principles. The first is to eliminate the ST sample; the second is to exclude the samples of CSRC monetary financial services, CSRC other financial industry, CSRC insurance industry, CSRC capital market service; the third is to eliminate the missing data samples. Excluding the companies that reappeared in the four years of 2013-2016, the final sample of 3,389 companies is received, 54,224 observation values in total. The annual distribution of sample companies is shown in Figure 1. It can be seen that in 2014, insurance institutions held the largest number of other companies, reaching 2,244.

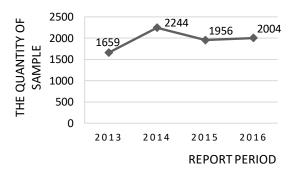


Figure 1: Number of listed companies held shares by insurance institutions

IV. THE ANALYSIS OF EMPIRICAL RESULTS

(1) Preliminary conclusions on the influence of insurance institutions' shareholding on the capital profitability of listed companies

Before using the propensity score matching method to find the control sample, the companies of being held shares by insurance institutions and other types of investors should be compared statistically on matching variables and the explained variables. The specific results are shown in Table 2:

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

Table 2: Comparison of the mean value of matching variables and interpreted variables (before matching)

Matching variables	Insurance	Other investors	P	Т
Size	22.673	22.291	0.000	-7.906
Lev	0.432	0.419	0.082	-1.740
Turnover	31.275	141.579	0.434	0.782
PM	0.278	0.275	0.616	-0.501
Expenses	0.186	0.209	0.001	3.421
ROA-1	0.046	0.038	0.000	-4.775
Salesgrowth	34.858	29.779	0.596	-0.53
Assetsgrowth	30.339	29.707	0.896	-0.13
Top1	34.616	33.208	0.011	-2.545
Top3	48.281	47.274	0.077	-1.767
Z	8.713	8.599	0.851	-0.188
Beta	1.228	8.559	0.682	0.410
ROIC	6.654	5.349	0.000	-4.631
LSR	77.728	75.744	0.027	-2.214
EPS	0.424	0.312	0.000	-5.015

From the above table, it can be found that in the six covariates of company size, expense ratio, total return on assets, shareholding ratio of the largest shareholder, return on invested capital, and ratio of tradable shares, the P values are less than 0.05, which have significant difference. Among all the matching variables, the average turnover rate, expense rate, and beta of the companies held shares by insurance institutions are lower than those of being held shares by other types of investors, indicating that insurance institutions tend to hold companies with small agency costs, low operating costs, and low risks. The average values of the rest variables are greater than the companies held shares by other types of investors, indicating that insurance institutional investors prefer to hold companies with efficient management and good performance. The P value of the interpreted variable--earnings per share is 0, and the difference is significant. Besides, the average of the earnings per share of the companies held shares by insurance institutions is higher than that by other types of investors, but this may be caused by the endogenous problem set by the model, because Insurance institutional investors themselves will choose companies with good performance and strong capital profitability, and it is

www.ijsser.org

Volume:03, Issue:11 "November 2018"

necessarily not the shareholding of insurance institutions that leads to the improvement of company's performance and capital profitability, or these indicators themselves will lead to the improved performance of listed companies and capital profitability. Based on the bias caused by these endogenous effects, the propensity score matching analysis will be conducted below.

(2) Matching process and result analysis

Although the results of the independent sample T test are relatively straightforward, as described above, endogenous effects cannot be avoided, so the propensity score matching method (PSM) will be used for matching. Before the matching, the regression coefficient is calculated according to the logit probability model by using the formula (5), and the matching variables will be selected. In this model, the dummy variable—wheter being held shares by insurance institutions is used as the explained variable, and the matching variable is used as the explaining variable with controlling the indicators of industry and the year. The final regression result shows that the beta coefficient and the company's total assets do not significantly affect whether insurance institutions hold a company's share, so in the subsequent matching process, the two indicators are removed from the matching variables.

After more than 20 trials, the appropriate caliper value is 0.001 is received, that means when the error of the sample companies' propensity score between the control group and the experimental group is less than or equal to 0.001, the two groups can be paired. The final matching result is shown in Table 3. 15 pairs are exactly matched, 915 pairs are fuzzily matched, and 960 pairs are received in total.

Table 3: Matching result

Matching types	Counting	
Exact matching	45	
Fuzzy matching	915	
Mismatched including missing	15	
kevwords Mismatched with efficient keywords	15	
Sampling	without	
Log file	none	
Maximize	yes	

The matched experimental group and the control group are operated independent sample T test again, and the Table 4 was obtained:

Table 4: Comparison of the mean value of matching variables and interpreted variables (after matching)

Matching variables	Insurance	Other investors	P	T
Lev	0.433	0.423	0.276	-1.090
Turnover	31.650	16.664	0.246	-1.161
PM	0.278	0.281	0.666	0.432
Expenses	0.185	0.189	0.530	0.629
ROA-1	0.047	0.047	0.948	0.065
Salesgrowth	35.347	36.254	0.950	0.063
Assetsgrowth	30.693	27.292	0.591	-0.538
Top1	34.563	34.591	0.967	0.042
Top3	48.264	47.704	0.409	-0.826
Z	8.727	8.618	0.857	-0.180
ROIC	6.678	6.662	0.955	-0.056
LSR	77.515	78.171	0.539	0.615
EPS	0.422	0.339	0.000	-3.577

After obtaining the predicted probability that if a listed company is held by the insurance institutional investor, a balance test is needed to examine whether there is a significant difference in the propensity score and the matching variables between the experimental group and the control group. Under the assumption of exogenous condition, the experimental group and the control group were required to be balanced in the propensity score, and there should be no systematic difference in the distribution. That is, the purpose of matching is to control the factors affecting the insurance institutional investors holding shares of listed companies. Therefore, the samples that have been matched should have no significant difference between different variables, otherwise the difference in capital profitability between two enterprises that we have observed is also likely to come from conditional variables that have significant differences. In this paper, an independent sample T test is performed on all the matched condition variables, and the P values of all matching variables are found to be greater than 0.05, indicating that the propensity score matching method corrects the endogenous influence of the condition variables on the interpreted variable--EPS, that is, the listed companies held shares by insurance

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

institutions and other types of investors have no significant difference in the conditional variables, and the propensity score matching method is effective. Table 6 shows that the P value of the index per share (EPS) of the listed company's capital profitability is 0, indicating that the listed company's capital profitability is significantly different between the insurance company's shareholding and other types of investors' shareholding. Meanwhile, the average EPS of the listed companies held shares by insurance institutions is 0.422, which is greater than the listed companies held shares by other types of investors. Therefore, this paper draws a conclusion that the shareholdings of insurance institutional investors can enhance the capital profitability of the listed companies.

V. CONCLUSIONS AND POLICY RECOMMENDATIONS

This paper takes insurance institutional investors as the research focus, and chooses earnings per share to measure the capital profitability of listed companies. Taking the Shanghai and Shenzhen A-share listed companies in year 2013-2016 as samples, based on the logit probability model, PSM is used to calculate the propensity score of experimental and control samples. A suitable caliper value of 0.001 is obtained through trials and failures. The samples in experimental group are matched with the ones in the control group according to the propensity score, and finally the sample data in the matched experimental group and control group are treated with independent sample T test. After theoretical and empirical analysis, this paper draws two main conclusions: First, the earnings per share (EPS) of listed companies held shares by the insurance institutions is greater than the ones held sharesby other types of investors; second, the insurance institutional investors' shareholding can significantly increase the capital profitability of listed companies.

The research in this paper shows that "insurance capital into the market" can bring positive impacts to the capital market, and it has further reference significance for listed companies and insurance institutional investors. First of all, we must correctly view the positive role of insurance capital investment in capital market, especially the regulatory authorities need to pay attention to balancing the relationship between the supervision of listed companies and the introduction of funds, and cannot negate the fact that insurance institutions can improve the capital operation efficiency due to the violation of individual companies. Secondly, insurance institutional investors have unparalleled advantages in terms of professionalism, information, resources and risk security. Therefore, listed companies should actively introduce insurance institutions to invest, on the one hand to improve corporate governance structure, and on the other hand to improve capital operation and profitability, increase capital efficiency, and reduce capital operating risks. Finally, for insurance institutions, it is not enough to run the traditional insurance business, nor does they compete with banks in homogeneous business, but they have to give full play to their own advantages, strengthen the monitoring and management of listed companies that they invest in, and take early measures to prevent the occurrence of risks of high

www.ijsser.org

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

probability.

REFERENCES

- [1] WANG Yuanyuan, GE Houyi. A Research on the Shareholding Preference of Insurers and the Influence on Performance of Listed Companies--Evidence from A Share Market In China[J]. Insurance Studies, 2017(08):89-104.
- [2] Ma Chaoqun, Chen Rui. The Impact of QFII Shareholding on the Performance of Listed Companies--An Empirical Study Based on China's A-Share Market[J]. Journal of Finance and Economics, 2017(06):11-19.
- [3] Liu Ying-fei, Ni Yuan-yuan. The Impact of Heterogenous Institutional Ownership on Firm Performance: a Test from Cross Perspective of Independence and Stability[J]. Modern Finance and Economics-Journal of Tianjin University of Finance and Economics, 2015, 35(08):57-69.
- [4] Xia Ning, Li Min. An Empirical Study on the Impact of Institutional Investors' Shareholdings on Firm Performance[J]. Review of Economy and Management, 2014, 30(06):68-75.
- [5] Zhang Xiao-dong. An Empirical Study on Stock Holding Preferences of Insurance Companies[J]. Insurance Studies, 2013(07):34-41.
- [6] Fu Cong-Rong, Xie Huobao. Study on the Relationship between Insurance Company Participation and Earnings Quality-Based on an Exponential Analysis on Publicly Listed Firms in China[J]. Insurance Studies, 2014(3):44-53.
- [7] Li Shu-feng, Zheng Miao, Sheng Qing-hui. The Study on Earnings Per Share of Listed Companies[J]. Friends of Accounting, 2008(05):66-69.
- [8] Kang Yi. Try to Talk about Earnings Per Share[J]. Finance and Accounting Monthly, 1994(06):11-12.
- [9] Stuart L. Gillan, Laura T. Starks. Corporate Governance, Corporate ownership, and the Role of Institutional Investors: A Global Perspective[J]. Journal of Applied Finance, 2003, 13(2):4-18.
- [10] Cornett M M, Marcus A J, Saunders, et al.The impact of institutional ownership on corporate operating performance[J]. Journal of Banking & Finance, 2007, 31(6):1771-1794.

ISSN: 2455-8834

Volume:03, Issue:11 "November 2018"

- [11] Rosenbaum P R, Rubin D B. The central role of the propensity score in observational studies for casual effects[J]. Biometrika, 1983, 70(1):41-45.
- [12] Bushee B. Institutional investors, long term investment and earnings management[J]. Accounting Review, 1998, 73(3):305-333.
- [13] Shleifer A., Vishny R. Large shareholders and corporate control [J]. Journal of Political Economy, 1986, 94(3):448-461.
- [14] Koh, P. S., Institutional Investor Type, Earnings Management and Benchmark Beaters[J]. Journal of Accounting and Public Policy, 2007, (26): 267-299.
- [15] Stanley G. Eakins Stanley R. Stansell, Wertheim P E. Institutional Portfolio Composition: An Examination of the Prudent Investment Hypothesis[J]. The Quarterly Review of Economics and Finance, 1998, 38(1): 93-109.