A Study on the Market Reaction and Regulation Innovation on Penalties for Violations by Listed Companies

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Abstract — In this paper, we focus on non-financial companies which were listed as A-shares and received penalties from China Securities Regulatory Commission (CSRC) as well as Shanghai and Shenzhen stock exchanges. Empirical analysis was carried out on the market reactions following the announcements of penalties on violations. The results indicate, the timeliness of penalties has a significant effect on the market reaction to the information of penalties; punishment regulator, the degree of punishment, the year of punishment, and the different objects of punishment have no significant effect on the market reaction to the information of penalties. This illustrates that the efficiency of regulatory supervision is not high; therefore penalties do not play a deterrent effect on the listed companies' potential violations. The paper further puts forward the innovation regulatory paths on the listed companies' violations based on the empirical results.

Keywords - listed companies; penalties to violations; market reactions; regulatory innovation.

I. INTRODUCTION

According to the signal transmission mechanism, once the listed company violations are announced, rational investors will accordingly reduce the value expectations of the company, so the company's share price can fall in a certain extent in the days before and after the penalties. Of course, whether the capital market will punish violations of the listed company so as to produce governance effect depends on the responses of investors to punish the incident (Zhou Jie and Xue Youzhi,2007)[1]. After the penalties, how the stock price fluctuates, depends on the investors' attitudes towards the event of violations and penalties, and the judgments to the company's future value. After the release of the penalties information, relevant information spreading through various information sources and various of channels in the market, different traders receive relevant information and make judgments, then express their judgments through their own behavior on buying or selling, so the market will bring out the final reaction based on the listed company's stock prices fluctuation.

About the market reaction to the information of listed companies' penalties for violations, the existing literature respectively using event study method, multiple regression, logistic regression model and so on, examines the types of violations, the reasons of the violations and what kind of punishment can be received, then analyses investors' responses to the relevant financial report, the type of violation, managers and the auditors. Nourayi (1994) [2] found that the punished corporate's stock returns significantly negatively correlated with the extent of their illegal behaviour. Patricia M, Dechow et al. (2000) [3]found that after the punishment due to the company and auditors' improper handling, the company's share price will fall, and the credit auditing will be questioned. Marciukaityte, Szewczyk, Uzun and Varma (2006)[4] chose 276 companies as the research sample from 1978 to 2001,which was identified by government for financial fraud, cheating related stakeholders, or in violation of the regulations, and found their cumulative abnormal returns in violation notice [- 1, 0] time interval is significantly negative. Domestic scholars' researches have similarities with the mature capital market, and most studies show the market has obvious reaction, the punishment information has information content before and after punishment information announcement (Jiang Yihong, 2003[5]; Wang Li. 2007[6]; Hu Yanping and Chenchao,2004[7]). However, the research results also show some significant characteristics of China's securities market, such as inefficiency. Chen Gongmeng and Gao Ning (2005) [8] show that the public criticism approach will not have any impact on the market. Chen Guojin, and Zhao Xiangqin et al.(2005)[9]show that increasing the penalties for the listed companies did not give investors a positive abnormal returns, but before and after the penalty notice days investors suffered losses. Luo Peixin et al. (2005) believe that the current disciplinary measures are seriously short of effectiveness, effect preventing recidivism is not obvious. Ji Xiaoqing and Cao Xiao (2006) [10] found that Chinese listed companies' accounting information disclosure system had poor effectiveness as a whole, and there is a big difference in the efficiency of supervision and supervision authority for the securities regulatory institutions. Zou Wen (2011) [11]thinks that excluding the impact of the market rose and fell in 2007 and in 2008, before 2006 in China's securities market, the information content of stock price is steadily rising, and the Shenzhen SME board market's price information content is significantly higher than that of the overall level of the Shanghai Stock Exchange and

Shenzhen Stock exchange. Ma Jingwen (2011)[12]through the empirical results shows that in Chinese stock market, there was a negative correlation between stock price information content and the cost of equity capital.

On the basis of research literature, this paper will pay further attention to some factors' influence on the market reaction of punishment information, such as the institutions of penalties, the degree of penalties, the object of penalties and the timeliness of penalties, and provide enlightenment and reference for the improvement of securities regulatory efficiency, listed companies' governance, protection of the investors' interests.

II. THEORETICAL ANALYSIS AND RESEARCH HYPOTHESIS

A. Market Environment and Market Reaction to Punishment Information

About the unbalance response of the information, there has been discussed by domestic and foreign literature. The past research about fluctuation mainly on the unbalance influence that "good" and "bad" news on the stock market, thought the impact of bad news on volatility is larger than good news (Poon & Taylor, 1992[13]; booth, 1997[14]). According to the theory of behavior finance, due to the different psychological state of investors, the new information appearing in the different stages of market development, there will be imbalance of reaction, and the less developed financial markets, the bigger interference effect of psychological factors on the market. Lu Rong, long Bing Xu (2004)[15]dividing fluctuations of the stock market into two stages of bull market and bear market, found that, the impact of the "good news" on the Chinese stock market is greater than the impact of the "bad news"; Yu Wei, Jin Dong Yin (2006)[16] by comparative analysis among bull market, bear market and concussive market of China's stock market under different condition, thought that investors is more radical in the bull market, and transactions is unusually active. In contrast, investors in the consolidation market and bear market are relatively conservative, cautious, and under the same condition, volume amplification is much smaller than in the bull market.

In addition, China securities market getting through development for twenty years, market legal system, policy environment have undergone tremendous changes, with the market investment philosophy changing at the same time. What investment philosophy the investors hold, determines the different risk control attitude and investment style of investors, and thus what the investment behaviour they will take. The market reaction caused by the penalties information will be different because of the change of the macro environment and the

investor's investment idea. Based on the above analysis, the following two hypotheses are proposed:

H1: The reaction degree of investors to the penalties information in bear market is higher than that in bull market.

H2: In different punishment year, the market reaction of penalties information should be significantly different.

B. Penalties Characters and Market Reaction to Penalties Information

1. Different regulatory bodies. At present, the main responsibility for the listed corporations' supervision is taken by CSRC and the two stock exchanges. The exchange is in the position of first-line supervision, but its authority is relatively limited, and there is no investigation to the listed corporations, mainly to fulfill self-regulation. Compared with the exchange, the Commission has greater powers of investigation and punishment, with deterrent force for violations, and the social publics have more trust to the Commission, so the credibility and influence of the punishment behaviour made by CSRC are stronger. Therefore, put forward the hypothesis:

H3: The penalties CSRC made have a higher market reaction degree than exchange.

2. Different levels of penalties. The degree of penalties represents the regulatory authorities' definition of the violations severity, is an important feature of the penalties information. Judging from China's current situation, in the case of securities market irregularities investigation, the types of penalties are mainly public criticism, public condemnation and public penalties. The increases in the intensity of the penalties are also reflected in the increase in fines and further investigate the main responsibility of the criminal responsibility. Therefore, the degree of penalties is bound to form an investor's different judgments for the future financial risk prediction, the company's development prospects, operating results. Put forward the following hypothesis:

H4: The more severe the penalties are, the higher the degree of market reaction is.

3. Penalty object is different. In accordance with the different penalty objects, they can be divided into punishing companies and punishing management personnel. By the company or by the company executives implementing violations, results in different social impact and investors reaction. Because the company's violation is a "mass incidents", reflecting the listed company's macroeconomic management philosophy and the whole management team behaviour, such violations in a long period of time with continuity and operation of inertia; some executives making individual violations are caused by managers' lack the sense of social responsibility, in order to meet individual interests, and this incident once

investigated, social harmfulness is in a certain extent get suspended. Therefore, the company as a whole and a few individuals given punishment has different significance to investors. So we put forward the following hypothesis:

H5: The company or the company and the managers

at the same time by the punishment, the market reaction got a higher degree.

4. Different punishment prescription. Timeliness of punishment is a quantitative indicator reflecting the time interval from violations to be investigated, which reflects the regulatory efficiency of the regulatory agencies to a large extent. According to relevant statistics, China stock market's turnover rate is four times that of the foreign market, with serious short-term behaviour of the investors, and high capital turnover rate. Therefore, when the cycle investigating violations is longer, suffered investor has been fulfilled, and the existing investors have indifferent reaction to listed companies' violations in the past. If the regulatory agencies can be found in a timely manner the listed corporation's violations, and investigate, then the reaction of investors will be more intense. Therefore, put forward the hypothesis:

H6: When listed corporations after the violation is punished in a relatively short period of time, the market reaction can get higher.

C. Companies' Characters and Market Reaction to Penalties Information

1. The proportion of tradable shares. Only tradable shares in the Chinese stock market can be traded freely, which has circulation right. Therefore, the stock market price signals and control function is realized through the tradable shares, which play a role on decentralizing investment risk, improve the use efficiency of funds. To this end, the following assumptions are made:

H7: When company with the higher the proportion of tradable shares is punished, the penalties   information will get higher degree of market reaction.

2. The ratio of institutional investor. Compared with the medium and small investors, institutional investors have more power in listed company governance, and more rational investment decision. When the poor management of the company, they are more willing to take "vote" for the company of pre-supervision, in- supervision, and post supervision. Institutional investors have more communication channels to know the status of listed companies more clearly, to have more explicit expectations of the prospects for the development. When listed companies' penalties news for violations are released, institutional investors' surprise will be much smaller than the individual investors. The following assumptions are thus presented:

H8: When the company with higher proportion of institutional investors among tradable shares gets penalties, the degree of market reaction will be lower.

3. Whether the stock with "ST" or not. In the stock market, investors are suspicious about the ST companies

with financial crisis and the continued viability, and the risk of delisting. When the company once again punished, investors' sensitive psychological by further shocks, are often too pessimistic for the future stock price, to choose the oversold behaviour, so that future stock price is lower than the reasonable level, then easy to produce excessive reaction. As a result, the following assumptions are proposed:

H9: ST companies are subject to penalties, the market reaction to a higher degree.

4. Age of listing. Generally, the company after listing steps into the standardized management. With increase of listing age, investors are more familiar with its business model and corporate governance, and violations may be already known. So when the company is punished, there will be less surprise to investors. As a result, the following assumptions are proposed:

H10: When longer listed companies are in the penalties, the degree of market reaction is lower.

5. Company size and debt ratio. The research at home and abroad shows that the scale of listing corporation has a positive impact on the information transparency of listing corporation. When the small company is punished, due to less attention, investors receive the less ex ante information, and can get greater "accidental" effect. So the penalties event information content is higher, which caused the more strong market reaction.

The company with high asset liability ratio is more likely to bring out financial risk, and when punished, the investors are more intense of pessimism, higher degree of reaction. The following assumptions are thus presented:

H11: The larger company's size is, the smaller the market reactions penalties causes.

H12: The higher company's asset liability ratio is, the higher market reactions penalties cause.

III. EMPIRICAL RESEARCH DESIGN

A. Data Sources and Selection Criteria

To research on market reaction of punishment information, need to clear the specific date when penalty information is announced, and determine the research window, to calculate the abnormal return rate, so in window except for penalties for violations there should be no other significant events. Therefore, the sample selection follows the following principles: (1) the sample selection from January 1, 2000 to December 31, 2012, the research objects are A shares of non-financial listing corporations subject to regulatory penalties and punishment information announcement; (2) for company with only one punishment, the violation year is the year when the company is punished, but for the company with two or more penalties,   need to calculate the excess rate of return before 200 trading days of the event window as the estimated value, but for second and later several

penalty notice, it is not easy to clear the estimation interval when calculating the abnormal return rate, so the violation year and the violation event are only the first punishment year and first punishment event; (3) eliminate samples of delisting, suspending the listing or suspending for a long time, because exchange data is incomplete in exchange; (4) there are no other significant events or important information announcement within 15 days before and after the disclosure of the punishment information; (5) remove more than three days of discontinuous trading samples in the event window, more than 10 days continuous suspension of sample during the estimated period, and the samples that are unable to obtain the data due to other reasons, at last, we determined 453 samples. It should be noted that, when some samples were punished, there aren't institutional investors' related data records in the database, which is dealt with the missing value in the study.

B. Definition and Measurement of Research Variables

1. Explanatory variable AARi

AARi is the cumulative abnormal returns for the sample stock in the event window period t, and this paper selects the data by the day before and after penalty notice issued each trading day that (-1, +1) window, then:

$$AAR_i = \sum_{t=-1}^{1} AR_{it}$$

2. Explanatory variable definition list

TABLE 1   DEFINITION AND MEASUREMENT OF VARIABLES

Variables Name	Variables Meaning	Variables Value
AAR	supernormal return rate	Sample company's supernormal return rate in the window period
CF11	Regulatory agencies	1= Shanghai Stock Exchange, otherwise 0
CF12		1= Commission, otherwise 0
CF13		1=other, otherwise 0
CF21	Punishment method	1=public condemn, otherwise 0
CF22		1=public punishment, otherwise 0
CF23		1=other, otherwise 0
CF3	Punishment object	0= Punish management level, 1= Punish company or punish company and management level
CF4	Punishment prescription	The D-value between the release time of punishment announcement and the time of violation
SC	Bull bear market	0= bear market, 1= Bull market
JG	Investor quality	Institutional investor shareholding ratio
ST	Financial risk	0=not ST company, 1=ST company
AGE	Listing age	The D-value between the release time of punishment announcement and the time of listing
STA1	Company nature	1= state firms, 0= Non-state firms
STA2		1=other types of enterprises, 0= Non other types of enterprises
SIZE	Size	Natural logarithm of total assets over the last year
LEV	Asset liability ratio	Asset liability ratio last year
LT	proportion of outstanding shares	circulation A shares of Listing Corporation punished for a year of accounted for the proportion of total share capital

At present, the domestic researches on the definition of the bull market bear market method are not uniform, the paper with reference to the relevant literature, and China stock market's division between bull market and bear market cycle from 2012 to 2000 is shown in table 2.

TABLE 2   CHINA STOCK MARKET'S DIVISION BETWEEN BULL MARKET AND BEAR MARKET CYCLE

Bull market	bear market
January 1, 2000~In June 14, 2001	June 15, 2001~June 6, 2005
June7, 2005~In October 16, 2007	October 17, 2007~October 28, 2008
October 29, 2008 ~August 4, 2009	August 5, 2009 ~July 2, 2010
July 3, 2010~In November 11, 2010	In November 11, 2010~December 31, 2012

C. Model Selection

In order to test the hypothesis, the regression analysis was used to test the hypothesis. Regression analysis method based on the sample and window selection, is selected in establishing regression equations between penalty incidents and abnormal return rate, and according to the regression coefficient' size, symbol, and the significance make judgments of the penalty incident information content and impact on the stock market. According to the definition of the preceding variables, regression analysis models such as (1):

$$AAR_i = \beta_0 + \beta_1 CF11_i + \beta_2 CF12_i + \beta_3 CF13_i + \beta_4 CF21_i + \beta_5 CF22_i + \beta_6 CF23_i + \beta_7 CF3_i + \beta_8 CF4_i + \beta_9 SC_i + \beta_{10} JG_i + +\beta_{11} ST_i + \beta_{12} AGE_i + \beta_{13} STA1_i + \beta_{14} STA2_i + \beta_{15} LEV_i + \beta_{16} ROE_i + \beta_{17} LT_i + \beta_{18} SIZE_i + \varepsilon_i \quad (1)$$

Note: Refer to the following documents：(1) J. Cui, et al. "The week effect in bull market and bear market in the phenomenon of Alienation – an empirical research on the Chinese stock market," System engineering theory and Practice, vol.8, pp. 17-25, 2008; (2)F. J. Gu and D. H. Jin,"Investor over reaction and the asymmetric of the fluctuation of the bull bear market," Mathematical statistics and management, vol.3, pp. 533-544, 2013;(3)Z. S. Peng and F. T. Song, "Analysis on the effect of different market forms on the price response of dividend reduction: A Perspective of the early and late period of the bull market," Shanghai Economic Review, vol. 6, pp. 121-128, 2013.

IV. EMPIRICAL TEST AND RESULTS

A. Correlation Analysis

1. Descriptive statistics

Because virtual variables only take 0 and 1, their statistical properties are out of the inspect, and descriptive statistics characters of other variables are shown in Table 3.In table 3, for the proportion of institutional investors JG, company size SIZE, listing age AGE, circulation share proportion LT, punishment aging CF4, financial leverage LEV, cumulative abnormal return rate AAR, their distribution can be considered to meet the normal distribution.

2. Correlation analysis

In order to test the relationship between the two variables alone, Pearson correlation analysis of the variables is shown in Table 4, because there are so many virtual variables, this result is only for reference. It can be seen, the dependent variable AAR and various independent variables are correlated, for the punishment of Shanghai Stock Exchange(CF11), public condemn（CF21）, punishment object (CF3) and control variables such as rate of assets and liabilities (LEV), net assets income rate (ROE), their relevance through the significant test; There are lower correlations with other variables.

Strong correlation exists between each two independent variables, because dummy variables' correlation coefficient has little significance for the different states of the same factors, when making regressions, we should avoid different factors with strong correlations into the model.

B. Regression Analysis

Due to the presence of multi-collinearity between variables, when making the regression analysis, it should respectively get into variables, and control of the industry variables and announcement year variables, regard above(1,1) the cumulative abnormal return rate as the dependent variable, analyse market reaction conditions before and after a total of three days interval in the penalty notice, shown as table 5.

The regression results show that the regulatory variables only CF11 got through the test of significance of 1%, other variables were not significant; the punishment variables only publicly condemn CF21 got through the test of significance of 10%, other variables were not significant; the punishment object variables CF3 are very significant, and P value is far less than 0.01, indicating that the market reaction to punish the company and to punish the manger are significantly different, and abnormal returns rates of punishing the company will change 1.820 units than the punishment of executives, so that the negative response is more obvious for executive punishment, which is inconsistent with the hypothesis; penalty time variable is not significant, although the coefficients of the variables symbols is consistent with the hypothesis, the aging is negatively related to abnormal return rate, without through the significant test, that is to

say, in the vicinity of punishment announcement, market reaction and punishment time are no obvious correlations.

C. Result Analysis

According to the above theoretical analysis, under the basic study framework of "behavior-price- information", after the release of the penalties information, the reaction of rational investors will lead to the punished company's share price adjusting downward, the negative abnormal return rate, and the greater magnitude of "negative" is, the higher reaction degree is. The coefficient of the regression equation also echoes this point; when the variable with negative coefficient becomes larger, the abnormal returns rate is "more negative", the smaller the value, the greater the degree of reaction. According to the results of in (1, 1) window correlation analysis and stepwise regression analysis, factors having significant influence on market reaction to the punishment information are as follows: regulators (Shanghai Stock Exchange CF11), the object of punishment (CF3), financial risk (ST), assets and liabilities rate (LEV), net assets income rate (ROE), firm size (SIZE), by which explanatory variables are explained, through the test of significance. In addition, other variables are not significant and did not pass the test.

According to this event of the listing Corporation penalties for violations, the punishment regulators, the object of penalties, penalties degree, and penalties time is the main factor influencing punishment effect. Theoretical analysis shows that the regulators in the Commission enjoyed one of the most extensive powers, also is the most authoritative regulators, with greater deterrent force for violations, and the stronger credibility and influence of the penalties behavior. But in the empirical test, the CSRC penalties behavior did not cause the investors' enough attention, and the index of the Commission's public punishment also did not pass the test, with the reason of long cycle and more procedure, so the CSRC regulatory efficiency remains to be further improved. Public condemn of exchange caused a significant market reaction, possibly because the exchange shall be responsible for daily inspection, mainly for sustained information disclosure regulation, so often can detect and investigate violations, and regulatory efficiency is higher.

Penalties object has significant effect on the market reaction; variable coefficient is positive indicating that, punishing executives caused the larger market reaction than punish the company, which didn't match with the hypothesis of "market reaction of punishing the company is more obvious". Inexplicably, most previous literatures thought that consequences caused by punishing company were worse, supported this conclusion that the market reaction to company violations punished was more obvious. But there is also the opposite conclusion in the literature. Zhu Guandong divided listed companies' illegal reasons into three categories, respectively high-level violations, information disclosure irregularities and illegal operations, and his research results that high-level illegal penalties effect is strongest, information disclosure irregularities in the middle, illegal operations and other irregularities penalties effect is the weakest. Based on previous research and analysis, probably because the company violations are paid more attention by the investors, long before the announcement has been in response in place.

Overall, although regulators punished the violations of the company, but investors suffered huge losses, and didn't get the corresponding compensation, penalties behaviour also did not play deterrent effect on listed companies' potential irregularities. Therefore, not only increase supervision, improve the cost of listed companies violations , but also strengthen the supervision in advance, nip in the bud, at the same time constantly improve the civil compensation system of investors, increase protections of investors.

TABLE 3. DESCRIPTIVE STATISTICS OF VARIABLES

	JG	SIZE	AGE	LT	CF4	LEV	（-1,1)
mean value	26.323	67.511	5.940	0.546	1.370	48.916	-0.357
median	24.147	25.864	5	0.464	1	47.618	-0.563
Maximum value	87.236	1424.940	19	1.874	7	252.634	30.779
minimum value	0	0.068	0	0.053	0	1.758	-16.423
standard deviation	23.350	144.568	3.846	0.266	1.016	24.484	4.307
skewness	0.563	5.330	0.900	0.801	2.104	2.094	0.968
kurtosis	-0.816	35.239	0.445	0.321	6.800	13.720	7.931
Kolmogorov Smirnov	2.344	6.812	2.775	2.676	7.200	1.425	1.995
P Value	0.000	0.000	0.000	0.000	0.000	0.034	0.001
Sum	7949.503	30515.17	2683	247.459	616	22159.008	-161.64
sum of variance	1602.611	368.653	1.315	17.572	4.138	29.607	1763.537
Observed value	302	452	452	453	451	453	453

TABLE 4-1. PEARSON CORRELATION ANALYSIS OF THE VARIABLES, Columns AAR to CF4.

r	AAR	CF11	CF12	CF13	CF21	CF22	CF23	CF3	CF4
CF11	-0.121*	1.000							
CF12	-0.026	-0.134**	1.000						
CF13	0.047	-0.244***	-0.210***	1.000					
CF21	-0.130**	0.554***	-0.150***	-0.305***	1.000				
CF22	-0.006	-0.107**	0.711***	-0.148***	-0.134***	1.000			
CF23	0.059	-0.224***	-0.218***	0.780***	-0.381***	-0.209***	1.000		
CF3	0.063*	0.030	-0.090*	0.214***	-0.059	-0.193***	0.223***	1.000	
CF4	0.031	-0.004	-0.114**	0.054	0.018	-0.062	0.119**	-0.174***	1.000
JG	-0.007	0.063	-0.058	0.054	0.083*	-0.011	0.032	0.007	-0.054
ST	0.032	0.158***	-0.009	-0.118**	0.183	0.037	-0.154***	-0.029	-0.032
STA1	-0.045	-0.160***	0.114**	-0.118***	0.054	0.106**	-0.206***	0.104**	-0.145***
STA2	-0.062	0.042	-0.004	0.063	-0.054	-0.017	0.082*	0.007	0.069
SC	0.011	-0.059	0.230***	-0.081*	0.036	0.255***	-0.113***	-0.133***	-0.045
LEV	-0.120**	0.251***	-0.002	-0.143***	0.256***	0.023	-0.155***	0.035	0.019
ROE	-0.064*	-0.472	0.062	0.022	-0.204***	0.060	0.049	-0.047	-0.012
LT	-0.040	-0.047	-0.059	0.220***	-0.183***	0.002	0.287***	-0.074	0.069
SIZE	0.054	0.031	0.048	-0.056	0.003	0.058	-0.069	-0.004	-0.090*

TABLE 4-2. PEARSON CORRELATION ANALYSIS OF THE VARIABLES, Columns JG to LT.

r	JG	ST	STA1	STA2	SC	LEV	ROE	LT
CF11								
CF12								
CF13								
CF21								
CF22								
CF23								
CF3								
CF4								
JG	1.000							
ST	0.082*	1.000						
STA1	-0.107**	0.022	1.000					
STA2	0.028	-0.011	-0.197***	1.000				
SC	-0.039	0.060	0.104**	-0.054	1.000			
LEV	-0.030	0.211***	0.062	-0.047	0.013	1.000		
ROE	0.034	-0.163***	-0.052	0.054	-0.125***	-0.330***	1.000	
LT	-0.234***	-0.010	-0.028	-0.014	0.043	0.036	0.034	1.000
SIZE	0.016	-0.071	-0.005	-0.010	-0.044	0.031	-0.027	-0.064

Note: * indicates a significant level of 10%, * * indicates a significant level of 5%, * * * indicates a significant level of 1%

TABLE 5. INFLUENCING FACTORS' ANALYSIS ON MARKET REACTION TO PUNISHMENT INFORMATION

	Model 1	Model 2	Model 3	Model 4	Model5	Model6	Model7	Model8	Model9	Model 10
C	0.059 （0.014）	0.948 (0.221)	0.703 (0.162)	-1.781 (-0.421)	0.066 (0.016)	0.030 (0.007)	0.085 (0.020)	-0.094 (-0.022)	-0.094 (-0.022)	-0.449 (-0.106)
CF11		-1.333 (-1.833*)								
CF12		-1.052 (-1.096)								
CF13		0.435 (0.686)								
CF21			-1.189 (-1.795*)							
CF22			-0.714 (-0.621)							
CF23			0.322 (0.435)							
CF3				1.820 (2.648***)						
CF4					0.366 (0.495)					
SC								0.153 (0.163)		
JG						0.170 (0.287)				
ST							1.617 (2.152**)			
AGE									0.072 (1.079)	
STA1										-0.373 (-0.773)
STA2										-1.848 (-1.590)
SIZE	0.007 (1.750*)				0.007 (1.857*)				0.007 (1.739*)	0.007 (1.681*)
LEV	-0.014 （-2.333**）	-0.011 (-1.957*)	-0.012 (-1.998**)	-0.014 (-2.508**)	-0.141 (-24.820**)	-0.014 (-2.429**)	-0.015 (-2.603***)	-0.014 (-2.451**)	-0.144 (-25.333**)	-0.014 (-2.504**)
LT	-0.691 （-0.708）	-0.521 (-0.533)	-0.730 (-0.747)	-0.627 (-0.647)	-0.689 (-0.705)	-0.618 (-0.612)	-0.714 (-0.734)	-0.690 (-0.706)	-1.162 (-1.088)	-0.687 (-0.688)
ROE	-1.888 (-2.363**)	-1.599 (-1.977*)	-1.940 (-2.411**)	-1.815 (-2.289**)	-1.890 (-2.362**)	-1.898 (-2.370**)	-1.659 (-2.062**)	-1.866 (-2.301**)	-1.873 (-2.338**)	-1.880 (-2.337**)
	$\overline{R}^2 = 0.190$ $F = 1.26$ $P = 0.0787$	$\overline{R}^2 = 0.201$ $F = 1.29$ $P = 0.062$	$\overline{R}^2 = 0.199$ $F = 1.27$ $P = 0.0696$	$\overline{R}^2 = 0.205$ $F = 1.35$ $P = 0.033$	$\overline{R}^2 = 0.191$ $F = 1.25$ $P = 0.089$	$\overline{R}^2 = 0.187$ $F = 1.26$ $P = 0.091$	$\overline{R}^2 = 0.201$ $F = 1.32$ $P = 0.047$	$\overline{R}^2 = 0.191$ $F = 1.25$ $P = 0.092$	$\overline{R}^2 = 0.193$ $F = 1.26$ $P = 0.081$	$\overline{R}^2 = 0.198$ $F = 1.26$ $P = 0.080$

V. THE PATH CHOICE OF THE SECURITIES MARKET REGULATION INNOVATION

China's securities regulatory philosophy must be reflected and reconstruct according to China's national conditions and development of the world economy, and the past administrative and regulatory objectives fuzzy securities regulation should have a thorough self-examination. According to the needs of the securities market, only further more renewing regulatory philosophy, improving the regulatory system, and innovating the model of supervision, can promote the scientific and healthy development of the securities market.

A. Update the Concept of Supervision.

Regulatory philosophy is the soul of the securities market, which restricts the position, direction and development of the securities market, and also affects the behaviour of the regulators.

1. Establish the concept of moderate supervision. The securities market of our country since the establishment had taken on the task of political and economic reform, the social economy construction, so regulatory philosophy was deeply influenced, reflected in the government intervention in the market too much, and excessive regulations affect the stable development of the securities market. "Market failure" and "government failure" theories show that excessive regulation and laissez faire are unable to guarantee the stable development of the securities market, therefore, seeking the balance between freedom and control——moderate supervision has become an important principle of securities market supervision. Government should not directly be involved into the market, but should create scientific securities market operation rules according to the market internal rules, then establish the market development strategy, and consciously induce finance in a timely manner to the standardization and internationalization.

2. Establish the concept of investor protection. Setting up the concept of investor protection as the core of the market supervision and management, investors are important participants in the securities market, only protect investor's legitimate rights and interests, establish the confidence of investors in the market,can a steady flow of funds enter, can the securities market play the effect of financing and resource allocation. In the market failure or out of control, the medium and small investors are the biggest victims. Therefore, establishing a correct regulation concept, reducing or punishing the disciplinary violations, maintaining the normal market order, is the maximum protection to investors, and the ultimate goal of securities regulation.

3. Establish the concept of independent supervision. Only by keeping its independence, can regulatory agencies establish its authority, and have the impartial supervision of market participants and their behaviour, and truly reflect the three principles, so as to establish a fair, efficient and transparent market mechanism. China must change the existing administrative system and mode, respect and maintain the internal mechanism of the market, and truly maintain the independence of securities regulation. This requires all the securities market regulatory body or actually the main body in the exercise of the securities market regulatory functions, including the CSRC, the stock exchange, the Securities Industry Association, securities companies self-discipline organs, social regulatory agencies such as news media, judicial supervision institutions such as the courts, following the idea of independence.

B. Perfect Supervision System.

For improving the securities regulatory system, we must first establish the laws and regulations system of securities regulatory with a multi-level and multi functions, not only to improve the securities law and other legal system, but also as soon as possible to establish related laws and regulations, but also to develop self-discipline supervision organization supervision rules, to fill in the "Securities law" some regulatory gaps. Particularly, one step is to further improve the listed company operation and dividend regulatory system, improve the corporate governance structure of listed companies, improve the information disclosure system, and improve the information transparency of securities market; the second step is to perfect civil compensation system, set up effective litigation system, make the investors by damage getting sufficient legal relief, protect the interests of investors, punish disciplinary violations, increase violation cost, so as to maintain the order of the securities market.

C. Innovative Regulatory Model.

At present, China's securities market is centralized and unified securities market supervision mode, which is over dependent on the government's administrative supervision, and self-regulatory and intermediary organizations are difficult to play an effective role. Exchange and other self regulatory agencies in the first line supervision with low information costs, flexibility and sensitivity, government departments cannot replace the advantage. In our country, we should put the self-discipline supervision in the front line supervision, and give the necessary authority to make the foundation of the self regulatory organization playing a role. To transform the stock exchange and the Securities Industry

Association, fade colors of the government, and become the organization truly safeguarding the interests of the organization members; clear the supervision responsibilities of stock exchange in the information disclosure of listed companies, the abnormal fluctuations in the market and general violations investigation; the Securities Industry Association should play a role on the self-management of all kinds of securities practitioners' training, examination, registration and other work. At the same time, actively construct the heteronomy supervision mechanism of securities market diversification, outside the government supervision, and implement the supervision regulation of social and investors.

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