

Market Reaction of Financial Restatements of Listed Companies

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Abstract. Over the past years, the amounts of listed companies that have accounting errors increased dramatically, in order to figure out the market reaction to financial restatement of listed companies, this paper uses event study method to study the market reaction of financial restatement disclosed in the notes of annual report during 2009-2018, the results show market respond negatively to the disclosed significant accounting errors, stock prices of company will drop significantly when the significant accounting errors is announced, and the effects will last for a few days after the announcement day.

Keywords: Financial restatement; Market reaction; Event study.

1. Introduction

Accounting errors are unintentional mistakes in book-keeping of transactions. Accounting errors are different from accounting fraud because in fraud an intentional mistake is made to misrepresent financial information or to conceal misappropriation of assets. Financial restatement is the corrections that the listed companies make. Since 1989, the frequency of financial restatement increased dramatically among both the foreign listed companies and also domestic listed companies. The famous scholar, Kinney (1989), Dechow (1996), Palmrose (2004), Scholz (2008) pointed out that financial restatements have a downward effect on the move of stock and also bring the abnormal return rate to investors. Moreover, Karpoff, Lee and Martin (2008) find the companies that release the financial restatement would be published.

While the number of listed companies that disclosed the financial restatement in China has risen, financial reports are the bridge between the investors and the company, the stakeholders make decision based on the information that derived from financial reports. However, the significant accounting errors would decrease the quality of information which would undermine the stakes of the information users, in this sense, this paper will study the reason that the number climbs and the impact of the financial restatement.

2. Research Methodology

2.1 Data Resource

The financial restatement which are disclosed in the notes from 2007-2017 are collected from CSMAR data base, we also do the following procedures: (1) exclude the financial companies; (2) remove the ST and *ST; (3) delete the companies that don't have any trade statistics on the announcement day. Finally we get 376 companies.

2.2 Methodology

(1) The target event: the significant accounting event

Estimation window: as the target event doesn't happen during this period, we assume the return rate of the stock is normal, the figure 1 shows the estimation window:

The event day: the paper uses the announcement day of annual report which will disclose the significant accounting errors as the event day that represented as T0, the estimation window is a few days before or after the event day, the event study method observe the return rate of stock. This paper choose the estimation window range from two days before the event day to five days after the event

day, the reason we expand the estimation window before the event day is to test the whether the information of the significant accounting errors is leaked or not.

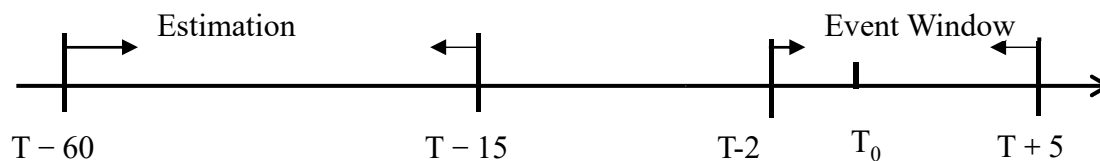


Figure 1. Time line

(2) Calculation of the normal return rate of stock

The market model is based on the assumption that the correlation of the return rate of market and the return rate of company has a linear relationship, the equation is as follows:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}$$

Where R_{it} is the rate of return of the stock i for the period t , R_{mt} is the rate of return of market for the period t , α_i and β_i is the coefficient that has to be estimated.

After regression, we get the coefficient of α_i and β_i , then using the market model, get the normal rate of return during the estimation period.

(3) Abnormal rate of return and accumulated rate of return

The return rate of stock after the event day is referred as the actual rate of return, the difference between the actual rate of return and normal rate of return is the abnormal rate of return, the abnormal rate of return between the periods of -2 to 5 is calculated as follows:

$$AR_{it} = R_{it} - R'_{it}$$

Then the average abnormal rate or return at the time t is:

$$AAR_t = \frac{1}{N} \sum_{i=1}^n AR_{it}$$

The accumulated rate of return of one-sample during the range of t_1 to t_2 is:

$$CAR_{(t_1, t_2)} = \sum_{t_1}^{t_2} AAR_{it}$$

The accumulated rate of return under the full sample is:

$$CAR = \sum_{-2}^t AAR_t$$

(4) Examination

This paper uses the T test to examine the accumulated rate of return, if the difference doesn't equals to zero significantly, it indicates that the significant accounting errors include some information which will lead to the significant changes of stock price.

2.3 The Result of Study

This paper uses the Stata 11.0 to analyze the data. The figure 2 shows the result of the accumulated rate of return under the full sample of period from -2 to 5, the figure 2 indicates the accumulated rate of return falls from the event day T to the day of $T+3$, the effects last for a short time after the announcement day.

Table 1 shows the T test result of the accumulated rate of return, the result indicates the disclosure of financial restatement have a significant negatively impact on the stock price. The T test shows the effects are not significant before the event day which proves that the information of accounting errors is not leaked. While the accumulated rate of return from the event day is negative which suggest the significant accounting errors will negatively affect the stock price when the information is released.

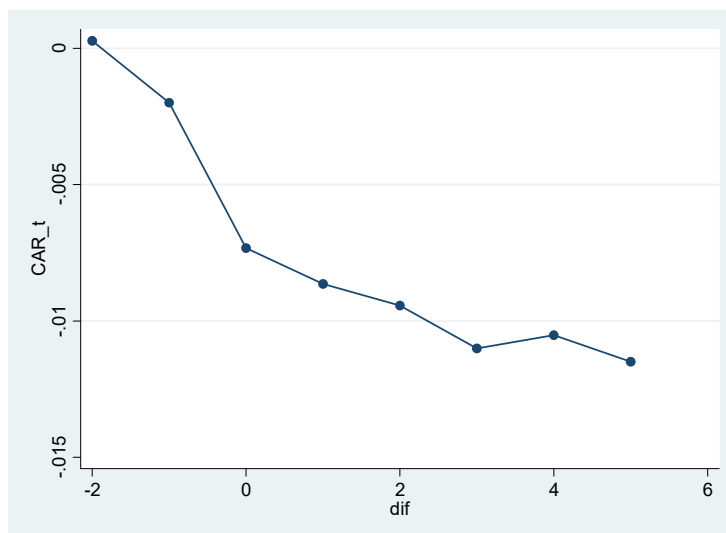


Figure 2. The CAR of full sample

Table 1. The T test result of the CAR during the period of [-2, 5]

	T-1	T-2	T	T+1	T+2	T+3	T+4	T+5
cons	0	-0.002	-0.007***	-0.009***	-0.009***	-0.011***	-0.011***	-0.011***
N	376	376	376	376	376	376	376	376

t statistics in parentheses

* $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$

The above results found market respond negatively to the disclosed significant accounting errors, stock prices of company will drop significantly when the significant accounting errors is announced and the effects will last for a few days after the announcement day.

3. Conclusion

With the method of event study, this paper examined the market response of the financial restatement, the result found market respond negatively to the disclosed significant accounting errors, in this sense, government should adopt the following measures to improve the quality of the disclosed information of listed companies and protect the interest of investors: (1) regulate the process of accounting; (2) perfect the legal information disclosure responsibility system.

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