

Manipulations for Inner Employees' Shares

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Abstract: After analyzing 262 corporations when their inner employees' shares (IES) become tradable from 1999 to 2003, we find that under-line items and probability of issuing stock dividend are significantly higher for firms with IES than firms without IES. In the two years before IES become tradable, corporations with IES tend to manipulate profit through under-line items and are more probable to issue stock dividend.

Key words: profit manipulation; stock dividend; inner employees' shares

1. Introduction

Inner employees' shares (IES) is an employee stock ownership plan (ESOP) with Chinese characteristics. The issuing of IES began during the restructuring of Chinese state-owned enterprises in 1980's, and was the main form of corporation restructuring. Until Dec 31, 1991, 85.4% of Chinese corporations had issued IES. But the Chinese government suspended IES issuing in 1994 because some IES holders were not qualified according to the regulations.

According to regulations, IES should be held by employees of issuing corporations only, including directors, supervisors, managers, ordinary employees on job or retired, and employees of subsidiaries. IES is allowed to exchange among employees before these shares become tradable in stock market. Since 1995, IES could become tradable in three years after the IPO of issuing corporations.

There are important differences between Chinese IES and American ESOP. Firstly, IES are held by individuals and become tradable in bundles, while ESOPs are held by institutions and cannot be sold by individuals in stock markets. Secondly, some holders of IES are not employees of issuing corporation, while ESOPs belong to employees. Thirdly, IES are issued during construction of corporation, and there is no tax shield for IES. Furthermore, there is no correlation between IES and corporate performance. Meanwhile, ESOP is set up after construction of corporation, and there is tax shield for ESOP. The issuance of ESOP depends on corporate performance. These differences make IES more like an investment plan rather than an incentive system.

2. Literature Review

Almost all related researches focus on the incentive effect of IES. Some researches find that IES provides no incentives to employees. For instance, Wang (1998) finds that there is no positive correlation between firm's performance and IES ratio. Su (2000) finds that there is no significant difference between ROEs of corporations with IES and those of corporations without IES. Other researches find that there is incentive effect for IES. For

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instance, Huang (1999), Wang (2000), Zhang (2002), and Ning (2004) find that ROEs of corporations with IES are significantly higher than those of corporations without IES.

As mentioned above, there are important differences between Chinese IES and American ESOP. IES is more like an investment plan rather than an incentive system. Existing Chinese researches directly copy foreign researches and focus on the incentive effect of IES, without taking into consideration the special institutional background in China. The explanations for their findings are in doubt.

In this paper, we view this issue from a new perspective: manipulations related to IES. We identify the existence and the forms of manipulations for firms of which IES become tradable from 1999 to 2003.

An alternative of manipulation is earnings manipulation. A lot of researches find evidences of earnings manipulation related to IPO and rights offering. For example, Aharony et al (2000) and Lin. Etc. (2000) find evidence of earnings management in IPO process. Jiang (1998) and Chen (2000) find evidence of earnings management in process of rights offering.

Another way of manipulation is to issue stock dividend. Some researchers find positive market reaction to claim of stock dividend, for example, Zhang (1997), and He (2002). Other researchers find that the firm's performance influences the decision to issue stock dividend. The firms with good performance tend to issue more stock dividend.

This paper investigates profit manipulation and stock dividend of corporations with IES when these shares become tradable.

3. Research Design

3.1 Data and Sample

Our sample includes 262 corporations of which IES became tradable from 1999 to 2003. The year in which IES became tradable is defined to be 0. Then the two years before the year in which IES became tradable are -2 and -1, and the year after is 1. This paper investigates profit manipulation during the period of (-2, 1). For the study on stock dividend, we use all observations of Chinese listed firms from 1997 to 2002.¹ To get rid of the effect of IPO, we delete all the observations of firms in the year of IPO. All data are gathered from the financial database of Genius Information Technology Corporation.

3.2 Variables and Models

In order to investigate profit manipulation, we focus on two performance measures.

ROE: Return on equity, measured by net profit divided by net asset at the end of financial year. If net asset is negative, then ROE is an outlier. We delete all outliers of ROE.

EXTRA: Under-line items on average asset, measured by the sum of under-line items divided by the average assets. Under-line items include investment incomes, extraordinary items and subsidies. Average assets are the average of total assets at the beginning and the end of financial year.

Two median performance measures of comparable corporations in the same industry and in the same year are symbolized by *IROE* and *IEXTRA*.

Changes of ROE and EXTRA between consecutive financial years are symbolized by ROE and $EXTRA$, while $ROE=ROE_t - ROE_{t-1}$, $EXTRA=EXTRA_t - EXTRA_{t-1}$. The industry median of ROE and $EXTRA$ in the same year are symbolized by $IROE$ and $IEXTRA$.

¹ Because we can not get data about next year rights offering of observations of 2003, we delete all the observations of 2003.

The Logistic model for factors affecting the probability of issuing stock dividend is as follows:

$$\begin{aligned} \text{Logit}(\text{SHDUM}) = & \mathbf{a} + \mathbf{b}_1 \cdot \text{ROA} + \mathbf{b}_2 \cdot \text{PRE} - \text{SHDUM} + \mathbf{b}_3 \cdot \text{BEFORE} + \mathbf{b}_4 \cdot \text{DIVAT} \\ & + \mathbf{b}_5 \cdot \text{INDUSTRY} + \mathbf{b}_6 \cdot \text{RIGHT} + \mathbf{e} \end{aligned} \quad (1)$$

SHDUM: For firms issuing stock dividend, SHDUM takes 1, 0 otherwise.

ROA: Returns on asset, measured by net profit divided by total assets at end of financial year. According to previous researches, there should be a positive relation between firm performance and probability of issuing stock dividend.

BEFORE: If the observation is in (-2, -1), BEFORE takes 1, 0 otherwise. If the observation is in (-2, 0), BEFORE 0 takes 1, 0 otherwise. If the observation is after the time in which IES became tradable, AFTER takes 1, 0 otherwise.

DIVAT: If cash dividend per share after tax is larger than 0.01Yuan, DIVAT takes 1, 0 otherwise.

INDUSTRY: If the corporation is in the industry of public utility, INDUSTRY equals to 1, 0 otherwise.

RIGHT: If the corporation has rights offering in next year, RIGHT equals to 1, 0 otherwise.

4. Statistical Analyses

4.1 Profit Manipulation

Tables 1 and Table 2 show the comparison results of ROE, EXTRA, and OPROA.

ROE declines during (-2, 1). Compared with the median ROE of corporations of same industry and in same year, the trend no longer holds.

EXTRA declines during (-2, -1). Compared with the median EXTRA of corporations of same industry and in the same year, it is found that EXTRA of corporations with IES are significantly higher than the median EXTRA of corporations in the same industry and in the same year. This is a sign of profit manipulation.

Table 1 Comparison Results of ROE

| ROE (%) | YEAR | | | |
|---------------------|----------|----------|---------|---------|
| | -2 | -1 | 0 | 1 |
| NO. of obs. | 262 | 262 | 261 | 224 |
| MEAN | 8.27*** | 5.20** | 3.40** | 1.24 |
| MEDIAN | 10.60*** | 8.94*** | 7.36*** | 6.29*** |
| ROE-IROE (%) | | | | |
| NO. of obs. | 262 | 262 | 261 | 226 |
| MEAN | -0.92 | -3.45* | -4.22** | -5.47 |
| MEDIAN | 1.17*** | 0.50 | 0.06 | -0.43** |
| ROE- IROE | | (-2, -1) | (-1,0) | (0,1) |
| NO. of obs. | | 262 | 261 | 225 |
| MEAN | | -1.92 | -0.37 | 0.26 |
| MEDIAN | | -0.73*** | 0.35 | -0.004 |

Notes: ***, **, * shows significant level of 1%, 5% and 10%. T test for mean and Wilcoxon rank test for median.

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Table 2 Comparison Results of Under-line Items

| | YEAR | | | |
|------------------|---------|----------|---------|----------|
| | -2 | -1 | 0 | 1 |
| EXTRA (%) | | | | |
| NO. of obs. | 262 | 262 | 262 | 227 |
| MEAN | 1.49*** | 1.16*** | 0.96*** | 0.16 |
| MEDIAN | 0.91*** | 0.71*** | 0.34*** | 0.23*** |
| <hr/> | | | | |
| EXTRA-IEXTRA (%) | | | | |
| NO. of obs. | 262 | 262 | 262 | 227 |
| MEAN | 0.60*** | 0.42*** | 0.35*** | -0.28 |
| MEDIAN | 0.10*** | 0.19** | -0.12 | -0.08 |
| <hr/> | | | | |
| EXTRA- IEXTRA | | (-2, -1) | (-1,0) | (0,1) |
| NO. of obs. | | 262 | 262 | 227 |
| MEAN | | -0.10 | -0.07 | -0.74*** |
| MEDIAN | | 0.01 | -0.04 | -0.02 |

4.2 Stock Dividend

Table 3 is statistical analysis of the probability of issuing stock dividend.

Table 3 Probability of Issuing Stock Dividend

| | Independent Variable: <i>SHDUM</i> | | | |
|------------------|------------------------------------|----------------------|----------------------|----------------------|
| | Model 1 | Model 2 | Model 3 | Model 4 |
| <i>INTERCEPT</i> | -2.25 (953.97***) | -2.29 (959.09***) | -2.30 (946.52***) | -2.22 (890.48***) |
| <i>ROA</i> | 14.79 (230.74***) | 14.46 (218.65***) | 14.55 (221.34***) | 14.67 (227.13***) |
| <i>PRE-SHDUM</i> | 0.41 (19.35***) | 0.38 (15.88***) | 0.39 (16.95***) | 0.40 (18.25***) |
| <i>BEFORE</i> | | 0.47 (15.60***) | | |
| <i>BEFORE0</i> | | | 0.35 (11.08***) | |
| <i>AFTER</i> | | | | -0.37 (4.22**) |
| <i>DIVAT</i> | -0.61 (49.62**) | -0.59 (45.24**) | -0.59 (46.10**) | -0.61 (48.34**) |
| <i>INDUSTRY</i> | -0.23 (1.18) | -0.24 (1.26) | -0.24 (1.24) | -0.23 (1.20) |
| <i>RIGHT</i> | -0.15 (1.74) | -0.18 (2.57) | -0.18 (2.49) | -0.16 (2.06) |
| N | 5144 (749) | 5144 (749) | 5144 (749) | 5144 (749) |
| Wald | 298.88 | 325.53 | 320.50 | 314.88 |
| %Concordant | 71.4 | 71.6 | 71.6 | 71.5 |

ROA and *PRE-SHDUM* are significantly positive, which means that corporations with good performance tend to issue stock dividend, and corporations issuing stock dividend in previous year tend to issue stock dividend this year. *INDUSTRY* and *RIGHT* are not significant. There is no evidence that industry and rights offering have effect on issuing stock dividend.

We focus on three variables: *BEFORE*, *BEFORE0*, and *AFTER*. *BEFORE* and *BEFORE0* are both significantly positive, and *AFTER* is significantly negative. The result means that corporations are more probable

to issue stock dividend before IES become tradable. Coefficient and significance of *BEFORE* is higher than that of *BEFORE0*. And another test using sample of the year in which IES become tradable finds that *BEFORE0* is not significant. In short, corporations are more probable to issue stock dividend in the two years before IES become tradable.

5. Conclusions

Comparing ROE and under-line items of corporations with median ROE of corporations in the same industry and in the same year, we find that we cannot get consistent conclusion about ROE. The under-line items of corporations with IES are higher than that of corporations in the same industry and in the same year. In other words, the corporations with IES tend to manipulate profit through under-line items before IES become tradable.

After analyzing stock dividend from 1997 to 2003, we find that the probability of issuing stock dividend is higher for corporation with IES than for other corporations in the two years before IES become tradable.

In summary, in the two years before IES become tradable, corporations with IES tend to manipulate profit through under-line items and are more probable to issue stock dividend.

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