



## Analysis of the Implementation of Fair Value in China

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### Abstract

Since the application of New Accounting Standards, lots of attention has been concentrated on fair value measurement. This paper is an analysis of the implementation of fair value in China listed companies through an empirical method. By using the data of listed companies in 2007-2008, which belongs to the security markets of Shanghai and Shenzhen, we summarize the situation of applying the fair value measurement in listed companies, the effects of fair value measurement in profit aspect, as well as the problems to be resolved. The analysis is very helpful for both further researches on implementation guidance, and applying the fair value measurement appropriately in China listed companies.

**Keywords:** Fair Value Measurement, Listed Company, New Enterprise Accounting Standards, Financial Instruments

With the widely application of the international accounting standards, the new accounting standards for business enterprise in China were released in 2006, and applied from January 1<sup>st</sup> 2007 to reflect the economic situation more relatively. Among the new accounting standards, adopting fair value as a measurement tool is one of the biggest highlights both in theory and practice. How has it been used since 2007? In this paper, we analyze the implementation of fair value, using the data of listed companies in China, and summarize the problems in applying fair value.

### 1. The application of fair value measurement in listed companies in China

According to the New Enterprise Accounting Standards, fair value is defined as the amount that an enterprise would pay or receive to transfer an asset or a liability in an arms length transaction, between knowledgeable parties. Fair value is adopted in many standards such as “the recognition and measurement of financial instruments”, “the biological assets”, “debt restructuring”, “merger”, and “exchange of non-monetary assets”.

In the standard of “the recognition and measurement of financial instruments”, fair value is required to be adopted in initial recognition of financial assets. In the subsequent year-end measurement of financial assets, the available for sale securities and trading securities are required to use fair value as measurement tool. As shown in figure 1, in year 2007, among the 1328 listed companies, 362 companies held trading securities, covering 27% of the total; 345 companies held available for sale financial assets, covering 26% of the total, 140 owned the held-to-maturity investment, occupying 11%. In the annual reports of 2007, all of the listed companies holding financial instruments stated that they adopted fair value in related financial instruments measurement according to the new enterprise accounting standard, and disclosed the recognition and the subsequent measurement of financial assets and liabilities in notes. From the disclosure of 2007 annual report Shanghai market, 256 companies have balances in the account of gain or loss from changes in fair value, including the 169 companies owning gains and the remaining 87 companies holding losses. Comprehensively, the gains and losses from change of fair value mainly come from the trading securities and investment real estate.

Of the 1328 listed companies, 761 held the investment real estate, occupying 57% of the overall. But in the investment real estate holding companies, historical cost measurement is adopted in most companies, Only 10 companies' used fair value measurement, occupying little 1.13%. Among the 10 companies, 5 companies disclosed that the fair value are the results of asset appraisal in the notes to financial reports, the other 5 companies gained fair value base on market transaction price of similar assets.

### 2. The effect of fair value measurement on company performance

The introduction of the fair value measurement affects many aspects of enterprise such as operating performance, earnings management and financial structure at different level. This paper mainly aims at the fair value measurement applications and its effects on enterprise performance.

### *2.1 The overall effects of fair value measurement on listed companies*

By August 31st, 2008, 1619 companies of Shanghai and Shenzhen market disclosed semi annual reports, with an overall ¥553.30 billion net income, excluded Gold Molybdenum (601958) for its incomparability. It increased by 19.31%. The account “gains or loss from the changes in fair value” existed in 381 companies, totaling ¥244.95 billion losses due to the changes in fair value, which was 309.52% of last year. Compared with the large losses, these companies listed ¥116.91 billion gains on this item in 2007. As announced in the first three season reports of 2008, only less than 60 listed companies gained profits from securities investment, most companies were suffering with negative gains from changes in the fair value, and more than 20 companies' losses exceeded ¥1 billion Yuan. The total of changes in the fair value of whole listed companies is nearly ¥2.9 billion.

By 2009 April 15, 307 of 1047 companies which have their annual reports published disclosed information about gains or losses from changes in fair value, totaling a loss of ¥258.14 billion, compared with ¥128.3 billion gains from changes in fair value of the same 1047 companies in 2007. The ratio of gains or losses from investment and changes in fair value to total income before income taxes is 17.09%, 22.84% to with net income.

### *2.2 Case study*

We take China International Marine Containers (Group) Ltd (CIMC) (000039) as a case to show the effects on company performance in the following. Table 1 shows us the related performance index information such as Revenue, Operating Income and Net income of CIMC Group in 2004-2008 annual reports. In the first three years from year 2004 to 2006, as Figure 2 and Figure 3 shown, Revenue, Operating Income and Net income, all of the performance indices of the group increased smoothly; in 2007, the performance increased greatly, and conversable in 2008 it began to decline, especially the net income declines more sharply than the revenues and operating income. From the overall situation, fluctuations of performance of CIMC Group in year and 2008, in which fair value measurement has been applied are significantly greater than those of the previous year before 2007.

Table 2 summarizes the amounts and ratios of performance of CIMC Group in year 2007 and 2008, in which year the new accounting standards, especially the fair value measurement, have been were applied. In year 2007, the gains from changes in fair value amounted to ¥2.74 billion, occupying 7.93% of operating income, 8.66% of the net income of the current year. In the contract, In year 2008, the losses from changes in fair value amounted to ¥4.38 billion, occupying 24.3% of operating income, 31.13% of the net income of the current year.

By analyzing the operating details of CIMC Group in 2008, things are clear that the ¥473.27 billion revenue earned during was 2.94% dropped than last year, and the ¥14.07 billion net income in 2008 was 55.55% dropped than last year. The main reason for the revenue drop lied in the dry containers discontinuation happened in the fourth quarter of 2008. As far as the sharply falling of net income is concerned, the two main reasons are important: one is the provision for the of dry containers discontinuation for ¥6.99 billion, and the other is the stock write-down, which resulting the gains from changes in fair value fell sharply. Why net income decline far outweigh the revenue? Among these two reasons, the ¥4.38 billion loss from changes in fair value play a more important role, which is reaching 31.13% of the net income. This is apparently different from the gains earned in 2007. Furthermore, from the data of annual reports in 2007 and 2008, we can see that the decline in value of trading securities and derivatives during the reporting period is responsible for the losses from changes in fair value.

## **3. Problems in fair value applying**

In applying the fair value measurement, there are still lots of problems. Four main factors that prevent applying fair value measurement properly are concluded as follow:

### *3.1 Lack of complete theory system and operational guidelines*

Although the new accounting standards set up basic principles for the recognition and measurement of fair value, detailed theory framework and implementation guidelines are still lacked. For example, in the new accounting standards there is not any detailed principle about how to determine the fair value of assets from the similar asset transaction, such as in what kind of market, in what time, and which price to choose. In the annual reports of listed company in 2007 and 2008, some companies stated that in many subjects they have followed the new accounting standard, by using the price of similar assets in the active market quotation, to determine the fair value, In fact, due to the lack of standards. But because there is no publicly accepted principles, the fair value amounts largely depends on evaluation techniques, methods and professional judgment adopted by accounting personnel, especially those that need to use evaluation of the future cash flow of assets, the estimated amounts would differ greatly due to different date and the discount rate.

### *3.2 Inadequate disclosure of fair value information*

In the annual reports of the listed companies in China, little information related to the process of determining the fair value is found. Although most companies disclosed the amounts of trading securities and other financial assets and financial liabilities, information on how to determine the fair value of these assets and liabilities, such as the valuation

of the concrete method and parameters of selection, has not been fully disclosed in the notes. Furthermore, in the financial statements some listed companies, important items such as the major trading, important matters, important accounting policy, and accounting estimates requested by the new accounting standards have been omitted. Therefore, disclosure about whether fair value measurement after the major trading has been applied can not be found.

### *3.3 Lack of effective market environment*

According to the new accounting standards, the access of fair value should be in an active, completely competitive market condition. It is required the knowledgeable parties to participate willingly in the transactions, in which information asymmetry should be as far as possible, and any commodity market price can be open to access, and thus they can trade transactions risk factors into consideration, and determine the transaction price properly.

Although China's market economy has been established, the transition of the economic system has not been completed. There are still many disadvantages of the market condition for obtaining fair value. For instance, non-market factors still exists, non-monetary transactions between enterprise's are not regular, the markets for securities trading, property right trading market, and production material are not mature, and so on. Therefore, due to mature market condition suitable for the application of fair value, the soil and the environment, is not mature, the applying of fair value measurement in practice is not easy.

### *3.4 Lack of highly qualified and skillful accounting personnel*

Because of the difficulty of the access of fair value, the professional skill and professional judgment ability of accounting personnel are requested put forward higher request. There are about 12 million accounting professionals in China, about 80% of which are workers with inferior practicing ability, who have not been educated systemic accounting theory. It is difficult for them to correctly understand the definition of fair value measurement, let alone to use. Therefore, there will be a long way for them to increase the professional skill and professional judgment ability. The low quality of accounting personnel in businesses is considered one of the problems to be resolved in the reasonable application of the fair value.

## **4. Summary**

Based on the above analysis of data deriving from the annual reports of China listed companies in 2007-2008, we summarize the application situation of fair value measurement and its effects on performance aspects of company. In addition, we also analyze the problems existing in applying the fair value measurement.

(1) Fair value has been adopted by China listed companies widely and smoothly. With the application of the new accounting standard, fair value measurement has been adopted in many standards, the recognition and measurement of financial instruments is the case in point. Nearly one third of companies measured trading securities, the typical financial asset, at fair value.

(2) Fair value measurement affects the Net Income by the account gains or loss from change in fair value, the greater the fluctuations of market, the larger the effects. From this aspect, fair value is like a double-edged sword, that is, it can sensitively reflect the market situation. When the market is in prosperity time, fair value can boost the performance; in contrast, when the market setback, it also can suffer the listed company with great loss. Performances in 2007 and 2008 are examples in the above two cases.

(3) In applying fair value measurement, there are still some problems to be resolves in the future. Both problems in the external environment such as system and market environment and internal factors are considered. There is a long way to go until qualified accounting personnel are developed, and related information about fair value measurement are fully disclosed.

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Table 1. Performance of CIMC Group in 2003-2008 (Unit: Billion Yuan)

	2003	2004	2005	2006	2007	2008
Revenue	138	265.68	309.59	331.68	487.6	473.27
Operating Income	9.58	30.13	30.23	27.6	34.57	17.67
Net Income	6.83	23.89	26.69	27.72	31.65	14.07

Table 2. Proportion of Gains or Losses from Changes in Fair Value to Performance of CIMC Group (Unit: Billion Yuan)

	2007	2008
Gains or losses from changes in fair value (1)	2.74	-4.38
Operating Income (2)	34.57	17.67
Net Income (3)	31.65	14.07
Ratio:(1)/ (2)	7.93%	24.30%
Ratio: (1) /(3)	8.66%	31.13%

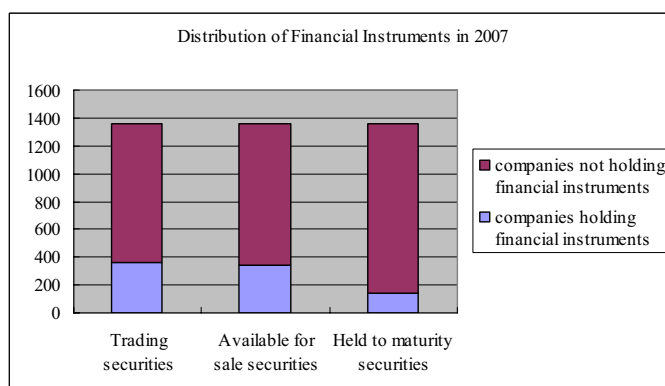


Figure 1. Distribution of Financial Instruments in 2007 of CIMC Group

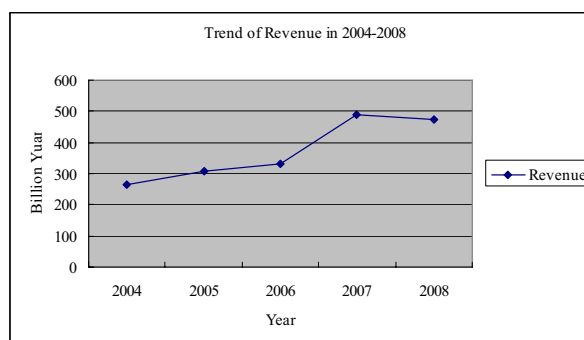


Figure 2. Trend of Revenue in 2004-2008 of CIMC Group

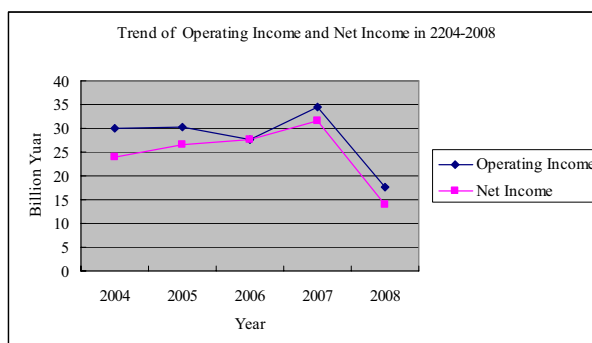


Figure 3. Trend of Operating Income and Net Income in 2004-2008 of CIMC Group