

# The Measurement Methods of Assets in Chinese Listed Companies

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## Abstract

The purpose of this paper is to measure the alternative accounting policies regarding asset in Chinese Initial Public Offering (IPO) companies. Therefore, the divergences of the measurement methods of asset disclosure in annual reports are investigated for listed companies with domestic and foreign shareholders. These methods are divided into six sub-categories: foreign currency translation, receivables, inventories, investments, fixed assets and intangible assets. The inclusion of each item in the index is based on the reviews of previous studies on measurement and corporate disclosure, the studies of prior corporate disclosure practices in Chinese listed companies and relevant rules and legislations. The findings of this study indicates that China, with a tradition of a unified accounting system, still employs uniform accounting method as the major approach to financial reporting within the centralised planning process. The concept of 'prudent' has been accepted by standard setters and policy makers since last decade that evidenced from accounting measurement and earnings reporting practices to resolve the disputes, for foreign and domestic investors have complained that the reliability and comparability of accounting information in China was doubtful. The accounting reform modelled on western reporting systems has some significant influence on the accounting framework and disclosure practices in China.

**Key words:** measurement methods, corporate disclosure, accounting policy choices, securities markets, China

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## **1. Introduction**

The purpose of this paper is to measure the alternative accounting policies regarding asset in Chinese Initial Public Offering (IPO) companies. Therefore, the divergences of the measurement methods of asset disclosure in annual reports are investigated for listed companies with domestic and foreign shareholders. The paper examines prior studies on in accounting research and evaluates these issues associated with their major findings. These items are divided into six categories: foreign currency translation, receivables, inventories, investments, fixed assets and intangible assets. The inclusion of each item in the index is based on the reviews of previous studies on measurement and corporate disclosure, the studies of prior corporate disclosure practices in Chinese listed companies, and relevant rules and legislations.

This study focuses on the discussion of asset disclosure for the following reasons. First, measurement and valuation methods of assets differ between companies influencing reported earnings in annual reports. Management have the incentive to use measurement method as a way of policy choice. For example, Mohebbi, Tarca and Woodliff (2004) have found that managerial utilised expense reorganisation of exploration expenditure in mining industry in order to reduce political costs. Second, there are significant disparities between the domestic and overseas General Accepted Accounting Principles (GAAP), particularly the International Financial Reporting Standards (IFRS), concerning the measurement and valuation disclosure of assets. For example, Chen, Gul and Su (1999) have compared the differences of Chinese accounting standards as opposed to the IFRS. Eccher and Healy (2000) studied the usefulness of the IFRS and domestic accounting standards in China and found that domestic accounting standards are more important to investors' decision-making. Eddie and Wang (2002) investigated the divergences between the Chinese GAAP and the Australian GAAP on consolidation disclosure. Third, under a centrally planned economy before the 1980s, total assets of enterprises belonged to and were controlled by the state. Scarce resources, products and wealth were allocated and distributed according to state plans. Purchases, sales, business operations of enterprises and government borrowings were oversight and managed directly by the government. The accounting profession was weak and played a minor role in enacting regulations and promulgating standards. Fourth, since China began to open up to the world in 1978, there have been significant changes in disclosure practices concerning measurement and valuation of assets. With the establishment of a market-oriented economy, China is making an effort to promote transparency and to provide true and fair information to investors. This study will assist policy makers and accounting standards setters to improve accounting standards by assessing the measurement and alternative accounting choices in practices in Chinese IPO companies. It will improve the investments environment by establishing a more transparent accounting disclosure system. In addition, transparent disclosure will attract investor interest and facilitate to resources allocation and State owned Enterprises (SOE) reconstruction by increasing the credibility of an economy. The study adds to the literature of international accounting research by extending the knowledge and discussions of corporate information reporting to a developing country, namely China. Previous studies have focused less on the accounting system classification in developing countries. Due to the difficulties in data collection previous studies that focused on corporate disclosure studies in China were concerned more with conceptual discussions. In contrast, this study conducted an empirical analysis on the extent of corporate disclosure and asset measurement and disclosure in Chinese listed companies.

This paper will be outlining the approaches in Chinese regulatory framework regarding asset measurement and valuation in listed companies. The paper will then proceed to the empirical stage of sampling and data analysis. The study compares the differences of accounting policy

choices that companies adopted before and after listing on the domestic and foreign stock exchanges. At last, following with is the conclusions section.

## **2. Background**

The information disclosure process during the period of 1978-1992 was imported from the former Soviet Union, and it was primarily macro-oriented, accounting, which serves as a management mean, aimed at improvement of government-planned control, fulfilment of government plan, improvement of financial management, and achievement of the goal that stimulated by both state and local government. Corporate disclosure parallels the establishment of accounting standards. The Chinese government has promulgated the campaign on accounting standards since 1992. With the introduction of ‘The Accounting Standards for Business Enterprises’ (ASBE) that was issued in 1992 and became effective on 1 July 1993, a series of accounting standards were enacted. The ‘Accounting Regulation for Business Enterprises’ (ARBE) which were released in July 1992 provided a chart of accounting for enterprises of all industries, the definition of assets, liabilities, owners’ equity, revenue, expenses and profit, and other general issues, such as the objectives of financial reporting. The introduction of ARBE and ASBE was considered the most significant achievement in China’s accounting practices since late 1970s, in that it signalled the Chinese accounting practices moving close towards Internal Accounting Standards (IAS) (Xiang, 1998). The ASBE applied to all Chinese business, for the first time in the history. The year of 2001 was viewed as the ‘Year of Regulation’ (Hu, Chen and Lin, 2002, p.96) because more corporate disclosure legislations was enacted, meaning the quality of information disclosure has attracted government attention in the securities markets.

The statutory requirement of corporate disclosure in China has been developed into a hierarchal structure until 2001. First, on top of the hierarchy is the legislation enacted by the highest legislative authority, i.e. National People’s Congress (e.g. The Company Law and The Securities Law). Second, the CSRC is responsible for the regulations of securities markets in China and plays a dominant role on the legislation establishing (e.g. rules on the corporate disclosure of listed companies). Third, the stock exchanges promulgated certain rules pertaining to the disclosure requirements of listed securities. Forth, governmental authorities that are in charging of accounting and finance affairs, such as the MOF, established regulations for listed companies. The framework of financial reporting systems in China is shown in table 1.

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## **3. Research Design**

The hypothesis in this study is developed as below:

*What are approaches of alternative policies in measuring assets applied by Chinese listed companies?*

### **Sample Selection**

In this study observations of 191 Chinese IPO companies that listed on domestic and overseas stock exchanges were carried out in the first stage. Listed companies were selected because they are likely to attract the attention of investors who are interested in the quality of corporate disclosure in China because financial data and other data are more readily available. Moreover, the study comprises non-financial companies with a primary or significant interest in manufacturing activities in order to ensure no bias is introduced into the analysis. Financial

companies are excluded because they are unable to disclose some of desired items by observing their annual reports.

The sample companies were classified into four groups: A-share, B-share, AB-share and AH-share companies. A-share companies are companies that issued A-shares only and are listed on domestic stock exchanges. AB-share companies are companies that issued A-shares and B-shares with an initial A-shares offering and are listed on domestic stock exchanges. B-share companies are companies that issued B-shares only or A-shares and B-shares, but B-shares issuing initially and are listed on domestic stock exchanges. AH-share companies are companies that issued A-shares and H-shares and are listed on both domestic and overseas stock exchanges: H-shares were an earlier issuing. A total number of 191 sample companies were selected: A-share companies (69), AB-share companies (52), B-share companies (44) and AH-share companies (26). The industrial distribution of sample companies is shown in table 2.

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The measurement methods examined in this study include six areas: foreign currency translation, receivables, inventories, investments, fixed assets and intangible assets. These are developed based on the ARBE (1999), the ASBE – Inventories (2001), the ASBE – Investments (2000), the ASBE – Fixed Assets (2001), the ASBE – Intangible Assets (2000), the ASBE – Leases (2000), and the IFRS. Table 3 list the alternative accounting measure methods and choices applied to Chinese listed companies. This study investigated 18 areas that relevant to asset valuation and measurement methods.

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#### **4. Measurement Methods**

Tables 4-10 illustrate the number of companies and the percentage to the total sampled companies that employed these measurement methods and valuation practices in the companies with various share categories. The score columns indicate the total number of companies that employ certain asset measurement and valuation methods. The percentage columns indicate the ratio of companies that utilise a particular accounting method to the total applicable companies. Total 18 accounting measurement and valuation methods are discussed in this section.

##### **4.1 Foreign Currency Translation**

Statutory provisions for companies regarding foreign currency translation and presentation in the balance sheet and profit and loss account are contained in Section 9 of the ARBE (1999). Article 119 of the ARBE states that foreign accounts should be translated at the exchange rate in effect at the date of transaction or at the first date of the month when transactions occur. Article 120 declares that foreign accounts at the end of month should be translated at the exchange rate in effect at the closing date of the month. The differences arising from translation are recorded in accounts of assets, capitalisation or expenses in the period in which they arise.

##### **Amount of Foreign Exchange Differences**

Table 4 demonstrates three recognition methods regarding the differences arising from foreign currency translation. Thirty-six of 178 pre-IPO companies and 114 of 191 post-IPO companies reported the item concerning translation differences arising from the period. The table reveals that all the reported pre-IPO companies (36) recognised the translation

differences as expenses. Only 3 of 36 of reported companies (8.33 per cent) recorded it in capitalisation account. In contrast, 6 of 114 reported post-IPO companies recognised translation differences as assets, and 17.54 per cent and 95.61 per cent of these post-IPO companies reported this item as capitalisation and expenses respectively.

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## **4.2 Receivables**

Section 2.18.1 of the ARBE (1999) requires that accounts receivables should be recorded as the amount when they incurred. The ARBE also requires that debts considered secured and debts considered doubtful should be reflected separately. Provisions regarding bad and doubtful debts should be presented in the balance sheet and profit and loss account according to Section 2.18.5, which took effect in 1993 with the introduction of an early version of the ARBE in 1992. Three methods are used to measure bad and doubtful debts: direct write-off, the percentage of sales and ageing of accounts receivables methods.

Companies are required to record the impairment loss of four assets – accounts receivables, inventories, short-term investments and long-term investments – by the ASBE (MOF, 1999). Furthermore, the MOF released ‘The Issues relating to Accounting Policies Consistency Regarding the Implication of Accounting Regulation for Business Enterprises’ in 2001 and stated that companies should calculate impairment loss for subsequent assets: fixed assets, intangible assets and construction in progression.

### **4.2.1 Allowance for Bad and Doubtful Debts**

This section reports on the status of whether or not the sample companies provide a detailed write-down into bad and doubtful debts. Table 5 shows that 70 of 191 pre-IPO and 164 of 191 post-IPO companies disclosed items concerning the allowance for bad and doubtful debts. A substantial number of pre-IPO and post-IPO companies (90 per cent and 81.71 per cent respectively) utilised the provision method. In contrast, only a small proportion of companies employed the direct write-off method: 7 of 70 reported pre-IPO and 30 of 164 post-IPO companies were in favour this method.

### **4.2.2 Method for Receivable Write-down**

The accounting regulations prescribed by a variety of government authorities illustrate that industry-based and ownership-based accounting systems are long-term practices in China. For instance, the ARBE (1992) prescribed that the allowance for bad and doubtful debts should comprise 0.3–0.5 per cent of the carrying amount of accounts receivables at the end of the period in manufacturing enterprises, whereas it is 1 per cent for other enterprises – for example, tourism, construction, financial institution and foreign investments enterprises (MOF, 1992: article 27). The ageing of accounts receivables is required by the MOF although there are various available provision methods provided in the ARBE (1999).

Fifty-two pre-IPO and 162 post-IPO companies disclosed the method for receivables write-down as demonstrated in Table 5. A-share and AH-share companies had a relatively higher disclosure in the pre-IPO companies, and B-share and AH-share companies had a higher disclosure level in the post-IPO companies.

The majority of companies (80.77 per cent of pre-IPO and 69.75 per cent of post-IPO) preferred the percentage of sales method. In contrast, only a small minority of companies (5.77 per cent of pre-IPO and 14.81 per cent of post-IPO) adopted the ageing of accounts

receivables method, and 13.46 per cent of pre-IPO and 15.43 per cent of post-IPO companies implemented the direct write-off method.

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### **4.3 Inventories**

Inventories is identified as a product held for sale in the ordinary course of business, in the process of production for sale, or in the form of raw materials or supplies to be consumed in the production process or in the rendering of services (Article 3.1 of ASBE – Inventories, 2001). Recognition of inventories requires that economic benefit will flow into the entity and that the cost of inventories can be reliably valued. The inventories are subject to the planned price or the actual price to be presented in the accounts for obtaining costing as the product of a planned economy. Some key SOEs in agriculture, transport, communication, energy and high technology areas operate under a state plan in the pre-reform period in China, and key raw materials are allocated by the state using a planned price rather than the market price (Tang & Lau, 2000). The actual price considers purchasing costs, production costs and other costs that bring inventories to its present place and status, and the difference between the historical cost and the planned price will be allotted to the product before the product is sold, or on completion of the production process. Article 17 of ASBE – Inventories (2001) states that the unit cost of inventories should be valued as follows: first in, first out (FIFO); last in, first out (LIFO); the weighted-average cost; the specific unit cost and the standard cost. Three amortisation methods are employed to determine the inventories costs for the period relating to low value merchandise and packing containers, namely direct write-off, five-five amortisation and periodic amortisation methods (Article 26 of ASBE – Inventories, 2001). The criteria to identify low value merchandise are: valuation lower than a certain amount (RMB¥1000 or RMB¥2000), lasting longer than 12 months and cannot be recognised as fixed assets. Article 17 of ASBE – Inventories (2001) requires inventories to be evaluated at the lower of cost or the net realisable value at the end of a period.

#### **4.3.1 Inventories Costing Using Planned Price or Historical Cost**

Two types of price are employed to measure the inventories cost as stated in Chapter 6: Planned price and the historical cost. Table 6 shows that 54 of 191 pre-IPO companies reported the item concerning the cost of inventories using a planned price or a historical cost. In contrast, 165 of 191 post-IPO companies reported this item. It is also demonstrated in Table 6 that 40.74 per cent of pre-IPO and 53.33 per cent of post-IPO companies utilised the planned price method. Thirty-two of 54 reported pre-IPO companies and 77 of 165 reported post-IPO companies used the historical cost method.

#### **4.3.2 Inventories Costing Method**

As stated in the ASBE – Inventories (2001), the unit cost of inventories can be appraised at FIFO, LIFO, weighted-average, specific unit and standard costs. The ‘Income Tax Deduction for Enterprises’ (National Taxation Bureau – NTB, 2000) allowed companies to employ LIFO as an inventories costing method. LIFO may result in a more meaningful of earnings in periods of rising price (Epstein & Mirza, 1997). LIFO is evidence of the concept of ‘prudent’, and indicates that accounting standards are moving towards the IFRS in China.

Table 6 illustrates that 51 pre-IPO and 148 post-IPO companies reported inventories costing method. The weighted-average cost was employed almost universally: the majority of pre-IPO (96.08 per cent) and post-IPO (93.92 per cent) companies employ this method to value inventories. In contrast, only 2 of the reported pre-IPO and 4 of the reported post-IPO companies employed FIFO; 1 reported post-IPO company used LIFO; 1 reported post-IPO

company used specific unit cost and 1 reported post-IPO company used standard cost. A-share and AH-share companies had a higher disclosure level for pre-IPO companies and B-share and AH-share companies had a higher disclosure level for post-IPO companies.

#### **4.3.3 Amortisation Method of Low Value Merchandise**

As low value merchandise will endure longer than 12 months, it is essential to measure systematically and reasonably the expenses for each period. Three methods are employed to determine the amortisation of low value merchandise and packing containers: direct write-off, five-five amortisation and periodic amortisation.

Forty-seven of 191 pre-IPO companies and 126 of 191 post-IPO companies reported the item concerning the purchase cost of inventories using a planned price or a historical cost (see Table 6). Most of the sample companies (76.6 per cent of pre-IPO and 75.4 per cent of post-IPO companies) favoured the direct write-off method. In contrast, 9 of 47 pre-IPO companies employed the five-five amortisation method and 2 of them used the periodic amortisation method. Only 12.7 per cent and 11.9 per cent of the reported post-IPO companies chose the five-five amortisation method and the periodic amortisation method respectively.

#### **4.3.4 Measurement Basis of the Value of Inventories at the End of the Period**

Although the ASBE – Inventories (2001) allows the lower of the cost or the net realisable value inventories to be used for inventories valuation at the end of the period, various methods were adopted in the disclosure practices of the sample companies: the book value, the market value, the lower of the market price and the book value and the lower of the net realisable value and the cost. It is demonstrated in table 6 that 40 per cent of pre-IPO companies employed book value and 30 per cent of pre-IPO companies used the market price respectively to measure the value of inventories at the end of the period. The options of the lower of the net realisable value and the cost or the lower of the market price (22.5 per cent) and the book value (7.5 per cent) were also used by pre-IPO companies. Of the 80 post-IPO companies that reported the inventories valuation at the end of the period, the majority (93.75 per cent) utilised the lower of the net realisable value and the cost method. In contrast, only a minority of post-IPO companies used other methods: the book value (2), the market price (1), and the lower of market price and book value (2). AB-share and AH-share companies had a higher disclosure for pre-IPO companies and B-share and AH-share companies had a higher disclosure level for post-IPO companies.

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#### **4.4 Investments**

Article 3 of the ASBE – Investments (2000) provides the nature and methods of valuing of investments. Articles 6 and 7 prescribe that investments should be measured at initial investments cost when obtained, including tax and service fees. The gain or loss on the sale of the investments should be recognised as income in the same period as the sale transactions arise. The carrying amount of investments at the end of the period are determined by the cost, the market price or the net realisable value on a portfolio basis for securities. Article 10 requires that short-term investments should be carried at the lower of the cost and the market price: the positive figure that comes from the historical cost deducting the market price, should be recognised as a loss for the period. Article 23 prescribes companies to scrutinise the book value of long-term investments at least once a year. If the net receivables amount is lower than the book value of the investments as the result of the market price continually dropping or because of changes to the operating situations of the invested companies,

differences between the net receivables amount and the book value should be carried in the investments loss account for the period.

#### **4.4.1 Valuation Method of Obtaining Investments**

Even though the ASBE stipulates that companies should use the historical cost method to assess the valuation of short-term and long-term investments, there are some anomalous samples were obtained. Thirty pre-IPO and 83 post-IPO companies disclosed the item concerning the valuation method of obtaining investments (Table 7). Two methods were implemented to record the cost of investments: the historical cost and the market price. The most companies chose the cost method – for example, 96.67 per cent of pre-IPO and 100 per cent of post-IPO companies used this method. Only one pre-IPO company used the market price method. A-share and AH-share companies had a higher disclosure for pre-IPO companies and B-share and AH-share companies had a higher disclosure level for post-IPO companies.

#### **4.4.2 Judgement Basis of Value Change of Short-term and Long-term Investments**

The historical cost, the market price and the net realisable value are related to the judgement basis of value change of short-term and long-term investments. Table 7 shows that no pre-IPO company disclosed information on the judgement of value change for short-term and long-term investments. Table 7 demonstrates that 40.76 per cent and 35.87 per cent of post-IPO companies provided the disclosure pertaining to the judgement of value changes for short-term and long-term investments respectively. The disclosure regarding judgement basis of value change of short-term and long-term investments indicated divergences from the legal requirements. The majority of companies (71 of 75) implemented the net realisable value as the basis of valuation for short-term investments, and 59 of 66 companies employed the net realisable value as the basis of valuation for long-term investments. In contrast, short-term investments were carried at the historical cost or the market price in a minority of companies (1 and 3 of 75 respectively), and 7 companies utilised the market price to measure valuation for long-term investments. Differences between shareholder categories were also listed in the table – for instance, 61.36 per cent of B-share companies disclosed this item. B-shares and AH-shares had a higher disclosure level than A-share and AB-share companies.

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#### **4.5 Fixed Assets**

Legal prescriptions concerning fixed assets and their depreciation and their presentation in the balance sheet and the profit and loss account are shown in the ASBE – Fixed Assets (2001). Article 7 prescribes that fixed assets should be carried at the historical cost for their initial measurement. Article 20 regulates that enterprises should choose an adequate depreciation method that relies on the expected mode to recognise economic benefits of fixed assets. The optional depreciation methods include the straight-line method, the unit method, the reducing-balance method and the sum-of-the-year digits method. The depreciation method should not switch from one to another unless the expected mode to recognise economic benefits of fixed assets has been adjusted. Article 21 states that depreciations should be calculated monthly and recognised as the cost of assets or expenses for the period depending on the purpose of fixed assets. The write-down of fixed assets has been introduced in the ASBE – Fixed Assets. Article 27 points out that enterprises should calculate the recoverable amount to determine whether there is a breakdown of fixed assets in the following circumstances: the market price crashes notably, the operating environment – for example, technological, marketable, economic and legal environment – encounters significant changes that impacts on enterprises

negatively, a considerable increase in the market interest rate influences the discount rate of the recoverable amount and the decrease of the recoverable amount of fixed assets eventually. Article 28 determines that if the recoverable amount is less than the book value, then the gap should be recognised as an allowance of fixed asset breakdown and carried at a loss account for the period.

#### **4.5.1 Initial Costing of Fixed Assets**

The measurement practices in relation to fixed assets (property, plant and equipment) were investigated for the valuation basis of fixed assets and the depreciation of fixed assets. Measurement methods reveal diverse practices in spite of the statute guidelines. Forty-eight of 191 pre-IPO companies disclosed the item. Historical cost (77.08 per cent) was the most popular method (Table 8). It is also evident that 116 of 191 post-IPO companies disclosed the items concerning initial cost measurement of fixed assets and all of the sample companies used the historical cost. Pre-IPO B-share and post-IPO AB-share companies had a lower level for initial cost measurement of fixed assets (4.55 per cent and 44.23 per cent respectively).

#### **4.5.2 Depreciation Methods**

The ABSE requires companies to depreciate assets on a systematic basis over the useful life of assets and suggests that companies follow the chosen method consistently. Three depreciation methods used in accounting practices are discussed in this section: straight-line, reducing-balance and sum-of-the-year digits methods. The selection of a depreciation policy has an important impact on taxation (Herrmann & Thomas, 1995). The ‘Income Tax Deduction for Enterprises’ (NTB, 2000) permits companies in particular industries – for example, electronic, ship manufacturing, machinery, plane and motor manufacturing, and chemical and medicine products – to employ the accelerated depreciation method.

Companies favour the straight-line method – for instance, 96.3 per cent of 54 pre-IPO companies disclosed this item (Table 8). Correspondingly, 87.96 per cent of post-IPO companies depreciated assets by this method (168 of 191). Only 7.69 per cent of AB-share pre-IPO companies and 11.36 per cent of B-share IPO companies used a depreciation method. In contrast, post-IPO companies had a higher disclosure level with more than 80 per cent reporting in this area.

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#### **4.6 Intangible Assets**

Article 3 of the ASBE – Intangible Assets (2000) outlines the categories of intangible assets: recognised intangible assets (e.g., patent, brand names, copyrights and franchise) and non-recognised intangible assets (goodwill). Article 15 recommends that the cost of goodwill will be amortised monthly over its expected useful life using the straight-line method. The useful life hinges on the following: beneficial life prescribed by contract, benefit life regulated by law, the shorter between benefit life stipulated by contract or by law, or no longer than 10 years. Article 16 provides that companies should inspect the book value of intangible assets at least once a year. Companies will evaluate the recoverable amount and recognise the allowance of intangible asset breakdown against the expenses for the period for the divergences with the book value in excess of the recoverable amount. The recoverable amount will be assessed under three circumstances: first, the assets have been overtaken by other new technology and the ability to create economic benefit has been affected negatively; second, the market price is slumping and cannot recover in the remaining amortised period; third, other evidence sufficient to demonstrate that the book value of assets exceeds the recoverable amount.

### **Measurement of Intangible Assets**

The measurement of intangible assets is by one of four methods: the historical cost, the net realisable value, the market price and the present value of net future benefit. Table 9 indicates that 12.5 per cent of pre-IPO (17 of 136) and 28 per cent of post-IPO companies (49 of 175) measured intangible assets. The companies generally employed the historical cost method. Only one company selected the present value of net future benefit. Pre-IPO B-share and AH-share companies had a higher disclosure level than pre-IPO A-share and AB-shares companies. The disclosure level concerning a useful life or amortisation rate was 19.85 per cent of pre-IPO and 64 per cent of post-IPO companies respectively.

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### **4.7 Basis of Revaluation of Inventories, Investments, Fixed Assets and Intangible Assets**

The disclosures of the basis of inventories, investments, fixed asset and intangible asset revaluation were higher in pre-IPO companies than in post-IPO companies (Table 10). The disclosure level concerning the revaluation basis for investments was 18.75 per cent (27 of 144 companies) in pre-IPO companies. The reason for the low disclosure level is that many companies did not have investments before the IPO phase as investments in marketable securities in China was not available until the establishment of equity markets in 1990. In contrast, almost entire companies disclosed the revaluation basis for inventories, fixed assets and intangible assets (100 per cent, 100 per cent and 96.32 per cent respectively) in pre-IPO companies. Companies are not engaged in revaluating assets except in certain circumstances – for instance, issuing securities publicly in the equity market, state government requirements and business mergers or take-overs (ARBE, 1992).

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## **5. Discussions and Conclusions**

In this study asset measurement and valuation methods in Chinese listed companies were empirically elaborated for the first time, including foreign currency translation, receivable write-down, inventories costing and valuation, investments valuation, valuation and depreciation of fixed assets and intangible assets valuation. The discussion suggested that asset measurement methods and practices varied substantially between the sample companies. The deviations in accounting practices relying on the issues concerned. The alternative accounting policies relating to measurement and valuation in assets in Chinese listed companies between various categories of share companies were examined empirically for the first time. The studies will provide assistance to investors regarding the accounting policies in listed foreign investment companies.

The results indicates that China, with a tradition of a unified accounting system, still employs uniform method as major approach to financial reporting within the centralised planning process. For example, the majority of companies utilised the provision method (90 per cent), the percentage of sales method (80.77 per cent), the weighted-average cost (96.08 per cent), the historical cost method (96.66 per cent) and the straight-line depreciation method (96.3 per cent) in a sample of post-IPO companies from 1992 to 2000. Nevertheless, the unified accounting system was identified as a barrier to economic development and accounting reform in China (Kazenski & Wong, 1994).

The concept of 'prudent' has been accepted by standard setters and policy makers that has been applied in accounting measurement and earnings reporting practices, as foreign and domestic investors have complained that the reliability and comparability of accounting information in China was doubtful. The accounting reform modelled on western reporting systems has some significant influences on the accounting framework and disclosure practices in China. The acceptance of the allowance for doubtful accounts is the application of conservatism cited in the standard (Kazenski & Wong, 1994). With the application of the ASBE and the ARBE, corporate disclosure is moving towards conservatism. For example, LIFO and the reduced-balance depreciation method have been introduced as accounting disclosure practices in Chinese listed companies. Moreover, the impairment losses for four assets – receivables, inventories, short-term investments and long-term investments – were required by the MOF (MOF, 1999). Subsequently the assets in respect to fixed assets, intangibles assets and construction in progress were also obliged by the NTB to consider asset impairment (NTB, 2000).

The divergences in terms of measurement methods and international disclosure practices between China and the rest of the world generated earnings discrepancies in Chinese multi-share companies. Chen et al. (1999) found that the valuation of assets, the restrictions on receivable allowances, inventories write-down, the capitalisation of debt interest and the depreciation methods were different between the rules of the PRC and those permitted by international organisations. Accounting measurement discrepancies led to demands for accounting standards and the legislative system to move towards international practices because disclosure practices are influenced by the trends toward market globalisation and standard harmonisation. Current practices undertaken by multi-nationals and groups of companies call for improvements and the standardisation of consolidation reporting in China.

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**Table 1**  
**Framework of Financial Reporting System in China**

<b>Authorities</b>	<b>Legislation Regulation</b>	<b>Effective Date</b>
National People's Congress	The Accounting Law	1 May 1985 (Revised in 1993, 1999)
	The Company Law	1 July 1994 (Revised in 1999)
	The Securities Law	1 July 1999
Chinese Securities Regulatory Committee	Corporate Disclosure Standards for Public Offering	Since 1998
	Corporate Disclosure Preparing Rules for Public Offering	Since 2001
	Code of Corporate Governance for Chinese Listed Companies in China	7 January 2002
Ministry of Finance	Accounting Standards for Business Enterprises	Since 1 July 1997
	Accounting Regulations for Different Industrial and Ownership Enterprises	Since 1 July 1993
Shanghai Stock Exchange Shenzhen Stock Exchange	Guidelines on Information Disclosure for the Listed Companies	Since 1990
	Listing Rules of Shanghai Stock Exchange	Since 1991
	Listing Rules of Shenzhen Stock Exchange	
	Share Trading Rules of Shanghai and Shenzhen Stock Exchange	1 December 2001

(Source: Revision Based on Lin and Wang, 2001, p. 265)

**Table 2**  
**Distribution of Sample Companies According to Industry Categories**

<b>Industry</b>	<b>A-shares</b>	<b>AB-shares</b>	<b>B-shares</b>	<b>H-shares</b>	<b>Industry</b>	<b>A-shares</b>	<b>AB-shares</b>	<b>B-shares</b>	<b>H-shares</b>
Agriculture, Forestry, Fishing and Hunting	3	1	1		Total Number of Manufacturing	41	33	28	16
Mining			1	1	Electricity, Gas and Water Supply	2	2	1	2
Food and Beverage	3	1	2	1	Construction	2			
Textile, Clothing and Leather	4	5	6	2	Transport and Storage	1	2	4	5
Wood Products					Information Technology		1	4	1
Paper and Printing	1	1	1		Wholesale and Retail Trade	3	2	1	
Petroleum, Chemical Products, Plastics and Rubber	7	4	2	3	Finance Insurance				
Electrical Equipment	2	7	4		Real Estate	4	6	2	
Metal and Non-metallic Mineral Products	9	2	2	4	Social Services	1	1	2	1
Machinery, Equipment and Meter	8	11	11	3	Transmission and Culture	1			
Medicine and Biological Products	4	1		2	Conglomerate	11	5	2	1
Other Manufacturing					Total Number of Sample Companies	69	52	44	26

**Table 3**  
**Asset Measurement Methods in Chinese Listed Companies**

Item	Disclosure
1	Amount of exchange differences arising from the period which is included in carrying amount of expenses
2	Allowance for bad and doubtful debts for the period
3	Methods for receivables write down
4	Method of costing inventories using planned price
5	Inventory costing method
6	Amortization methods of inventories
7	Measurement basis of the value of inventories at the end of period
8	Valuation method of obtaining investments
9	Judgment of value change of short-term investments
10	Judgment of value change of long-term investments
11	Measurement of the cost of fixed assets
12	Depreciation Method
13	Net value of fixed assets at the end of the period
14	Amount of intangible assets write down recognized for the period
15	The basis of revaluating the inventories
16	Judgments of the value of short-term and long-term investments in revaluation
17	Revaluation basis of fixed assets
18	Revaluation basis of intangible assets

**Table 4**  
**Measurement and Valuation Methods of Foreign Currency Translation: Pre- and Post-IPO Companies**

Items	Pre-IPO Companies			Post-IPO Companies		
	Total Number	Possible No.	%	Total Number	Possible No.	%
1*	36	178	20.34	114	178	64.04
Assets	0			6		5.26
Capitalisation	3		8.33	20		17.54
Expenses	36		100	109		95.61

Note \*= the number refers to the item in table 3.

**Table 5**  
**Measurement and Valuation Methods of Receivables: Pre- and Post-IPO Companies**

Items	Pre-IPO Companies			Post-IPO Companies		
	Total Number	Possible No.	%	Total Number	Possible No.	%
2*	70	191	36.65	164	191	85.86
The Provision Method	63		90	134		81.71
The Direct Write-off Method	7		10	30		18.29
3	52	191	27.23	162	191	84.82
Direct Write-off	7		13.46	25		15.43
Percentage of Sales Method	42		80.77	113		69.75
Ageing of Accounts Receivables Method	3		5.77	24		14.81

Note \*= the number refers to the item in table 3.

**Table 6**  
**Measurement and Valuation Methods of Inventories: Pre- and Post-IPO Companies**

Items	Pre-IPO Companies			Post-IPO Companies		
	Total Number	Possible No.	%	Total Number	Possible No.	%
4*	54	191	28.27	165	191	86.39
The Planned Price	22		40.74	88		53.33
The Historical Cost	32		59.26	77		46.67
5	51	191	26.7	148	148	77.49
FIFO	2		3.92	4		2.7
LIFO	0			1		0.68
Weighted-Average Cost	49		96.08	139		93.92
Specific Unit Cost	0			2		1.35
Standard Cost	0			2		1.35
6	47	191	24.61	126	191	65.97
The Direct Write-off Method	36		76.6	95		75.4
The Five-five Amortisation Method	9		19.15	16		12.7
The Periodic Amortisation Method	2		4.26	15		11.9
7	40	191	20.94	80	191	41.88
The Book Value	12		30	2		2.5
The Market Price	16		40	1		1.25
The Lower of the Market and the Book Value	3		7.5	2		2.5
The Lower of the Net Realisable Value and Cost	9		22.5	75		93.75

Note \*= the number refers to the item in table 3.

**Table 7**  
**Measurement and Valuation Methods of Investments: Pre- and Post-IPO Companies**

Items	Pre-IPO Companies			Post-IPO Companies		
	Total Number	Possible No.	%	Total Number	Possible No.	%
8*	30	144	20.83	83	184	45.11
The Historical Cost	29		96.67	83		100
The Market Price	1		3.33	0		
9	0	144	0	75	184	40.76
The Historical Cost	0			1		1.33
The Market Price	0			3		4
The Net Realisable Value	0			71		94.67
10	0	144	0	66	184	35.87
The Historical Cost	0			0		
The Market Price	0			7		10.61
The Net Realisable Value	0			59		89.39

Note \*= the number refers to the item in table 3.

**Table 8**  
**Measurement and Valuation Methods of Fixed Assets: Pre- and Post-IPO Companies**

Items	Pre-IPO Companies			Post-IPO Companies		
	Total Number	Possible No.	%	Total Number	Possible No.	%
11*	48	191	25.13	116	191	60.73
The Historical Cost	37		77.08	116		100
The Net Realisable Value	3		6.25			
The Market Value	2		4.17			
The Replacement Value	6		12.5			
12	54	191	28.27	168	191	87.96
Straight-Line Method	52		96.3	168		100
Reduced-Balance Method	2		3.7	0		
Sum of the year digits Method	0			0		

Note \*= the number refers to the item in table 3.

**Table 9**  
**Measurement and Valuation Methods of Intangible Assets: Pre- and Post-IPO Companies**

Items	Pre-IPO Companies			Post-IPO Companies		
	Total Number	Possible No.	%	Total Number	Possible No.	%
13*	17	136	12.5	49	175	28
The Historical Cost	17		100	48		97.96
The Net Realisable Value	0			1		2.04
The Market Price	0			0		
The Present Value of the Net Future Benefit	1		5.88	0		
14						
Useful Life or Amortisation Rates	27	136	19.85	112	175	64

Note \*= the number refers to the item in table 3.

**Table 10**  
**Measurement and Valuation Methods of Basis of Revaluation: Pre- and Post-IPO Companies**

Items	Pre-IPO Companies			Post-IPO Companies		
	Total Number	Possible No.	%	Total Number	Possible No.	%
15*	191	191	100	0	191	0
16	27	144	18.75	0	184	0
The Cost Method	8		29.63			
The Market Value	0					
The Net Realisable Value	19		70.37			
17	191	191	100	0	191	0
18	131	136	96.32	2	175	0.0114

Note \*= the number refers to the item in table 3.