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Keywords: Fair value, Fair value measurement, Development process, Accounting standards

Abstract: With the issuance of the “Accounting Standards for Business Enterprises No. 39 - Fair Value Measurement”, although there are still some differences in the relevant provisions on fair value between China and the United States, what they have achieved are basically the same. In addition, scholars in two countries are paying more attention on researches about fair value. This paper aims to analyze and summarize the researches of predecessors, detail the development process and conceptual changes of the fair value in China and the United States, compare the similarities and differences of the current fair value measurement standards between the two countries, summarize reasons leading to the differences for the two countries on such issues, and point out the direction of future research.

1. Introduction

At the beginning of 2014, in order to meet the needs of the development of the socialist market economy, further standardize the methods of accounting measurement and increase the comparability of financial report, the Ministry of Finance promulgated the “Accounting Standards for Enterprises No. 39 - Fair Value Measurement” (CAS 39) and requested all enterprises that implement the Accounting Standards for Enterprises to perform the new standard since July 1st, 2014. On July 23rd, 2014, the related portion about fair value in “Accounting Standards for Enterprises - Basic Standard” (Basic Standard) was also revised and implemented according to the “Decision of the Ministry of Finance on Amending the Accounting Standards for Enterprises”. The revision and issuance of CAS 39 restates the definition, measurement methods, and other related parts of fair value stipulated in the “Accounting Standards for Enterprises” (2006 edition), promotes the convergence of China’s fair value measurement standards and international standards about fair value measurement, and will have a major impact on Chinese enterprises.

At the same time, in recent years, to adapt to the continuous improvement of the capital market, and the appearance of new financial instruments, the Financial Accounting Standards Board (FASB) has also revised and improved the “Statement of Financial Accounting Standards No. 157: Fair Value Measurements” (FAS 157 or ASU 820), which is included in the US Generally Accepted Accounting Principles (GAAP). The large-scale revision and improvement of China’s accounting standards have resulted in more similarities and new differences between China and the United States in terms of fair value concepts, measurement methods, disclosure requirements, etc., thus becoming the content of academic research.

This paper will give an expansion of the development process and changes in concept of fair value in China and that in the United States, compare the fair value measurement standards in two countries, explain the differences on the above issues, and provide suggestions for the direction of future researches on fair value measurements.

2. The development of fair value

This section will describe the development process of fair value in China and the United States, list the representative provision at each stage, and briefly summarize the similarities and differences between the processes in two countries.
2.1 Fair value development in the United States

As the only country in the world that makes single, coherent and internally consistent regulations for fair value measurement (Jiashu Ge, 2007), the United States started the study of fair value in the 1960s and 1970s. Before this, under the influence of the Great Depression, the American society opposed any deviation from historical cost. However, with the economic recovery and development, historical cost gradually failed to meet the requirements of increasingly complex transactions, affecting the accuracy of accounting information, so fair value measurement appeared. In 1961, Maurice Moonitz, director of Accounting Research Department of the American Institute of Certified Public Accountants, advanced “sound value”, which meant “fair value” (Jiashu Ge, 2007). FAS 12 (Accounting for Certain Marketable Securities, 1975) and FAS 13 (Accounting for Leases, 1976) issued by FASB also allowed the application of fair value measurement. Since then, many standards issued by the FASB have involved the use of fair value measurement. However, due to the lack of uniform management and regulations, the chaos and loopholes in the practice of fair value measurement had a serious negative impact on the economy. For example, the abuse of fair value in Enron caused serious consequences (Benston GJ, 2006). Therefore, some experts and scholars once again opposed the deviation of historical cost, and the development of fair value in the United States slowed down.

Under such circumstances, in 2006, FASB issued FAS 157, which clearly defined fair value, standardized its measurement methods, application of input values and disclosure requirements, and established a framework for fair value measurement in GAAP (FASB, 2006). Although the subprime crisis in 2007 once again led to doubts about the fair value, the Securities and Exchange Commission (SEC) firmly believed that the fair value itself should not be blamed, and with the economic development, its application became inevitable (SEC, 2008). Since the 21st century, more American enterprises have stepped into the international market. In order to promote the smooth progress of transactions, a set of fair value measurement standards which is similar to the International Financial Reporting Standards (IFRS) is particularly important (Mark L. Zyla, 2013). With the joint efforts of FASB and IASB (International Accounting Standards Board), ASU 820 (Accounting Standards Update: Fair Value Measurement (Topic 820)) was issued in May 2011, which modified ASC 820. The majority of the content was nearly the same as that in IFRS (FASB, 2011). Now, American enterprises usually can use fair value to measure restricted assets, derivatives and other financial instruments, impairments, etc.

2.2 The development of fair value in China

China’s research on fair value began relatively late. The process can be divided into several stages. Some scholars believe there are three stages: introduction - stagnation - development (Yichao Liu, 2010; Jie Feng, 2014; Wei Li, 2016), while others consider the development as four stages: understanding - introduction - stagnation - development. For a new concept, it is necessary to determine whether it is suitable for China’s national conditions, whether it can be introduced, and how it should be developed after a full understanding. Therefore, it is more reasonable to divide the development of fair value in China into four stages.

The first phase is from the reform and opening up to 1997. During this period, China gradually paid attention to the establishment of accounting standards and began to explore and understand international accounting standards, including understanding standards about fair value. In 1992, China issued the “Accounting Standards for Enterprises”, trying to establish China’s independent accounting system, but had not introduced the concept of “fair value”.

The second phase is from 1998 to 2000. In 1998, the Ministry of Finance issued the “Accounting Standards for Enterprises - Debt Restructuring”. As a kind of measurement attribute, fair value officially appeared in the standard, breaking the era of historical cost. By the year 2000, China had succeeded in introducing and popularizing the concept of fair value, and the fair value measurement had been applied in China’s accounting practice.

The third phase is from 2001 to 2005. Due to restrictions like the imperfect capital market and the backward management system, the profit manipulation caused by applying fair value
measurement was obvious, which disrupted the market and was not the original intention of fair value measurement. The development of fair value was stagnated.

The fourth stage is from 2006 to the present. With the establishment of China’s market economy and the active trading of financial derivatives, the fair value was again mentioned in the “Basic Standard” issued on February 15, 2006, which clearly set fair value as one of the measurement attributes (Wei Li, 2006). Among the 38 specific standards issued together with the Basic Standard, 19 of them mentioned fair value. Fair value ushered a new round of development. In 2014, the Ministry of Finance issued CAS 39 to improve the interpretation of fair value, regulate the use of fair value measurement, and enhance the relevance of accounting information (Chunhui Yang, 2015). At present, of 42 specific standards in China, 25 of them involve the application of fair value (Meng Li, 2017), mainly relating to business combination, debt restructuring, financial instruments, investment real estate and impairment.

2.3 Summary

In general, though the use of fair value is a general trend, the development path of fair value of the two countries is not plain sailing. The United States began to study the fair value at an early stage, and has already formed a mature and perfect theoretical system. In recent years, the fair value standards in GAAP keep converging with those in IFRS, while China’s research on fair value begins late. The early stage can be named as “learning and acceptance” and the development, limited by various factors, is slow. In recent years, the fair value measurement standards suitable for China’s economic situation have gradually been established, and the fair value is developed.

3. Conceptual study of fair value

This section will list the concepts of fair value in China and the United States in accordance with the timeline of fair value development in two countries, and briefly analyze the changes in the concept of fair value in the two countries.

3.1 Changes in the concept of fair value in the United States

Prior to FAS 157, the FASB’s definition of fair value was spread across specific standards. For example, in FAS 13, fair value was defined as “the price for which the property could be sold in an arm’s-length transaction among unrelated parties”. FAS 133 (Accounting for Derivative Instruments and Hedging Activities, 1998) defined fair value as “the amount at which an asset (liability) could be bought (incurred) or sold (settled) in a current transaction between willing parties: that is, other than in a forced or liquidation sale”. Fair value at that time was considered as an “exchange price” when transaction cost was ignored or assumed to be 0 (Xiaoyan Wang, 2008).

Table 1. Changes in the Concept of Fair Value in the United States

<table>
<thead>
<tr>
<th>Time</th>
<th>Before 2006</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumptions</td>
<td>Take FAS 13 as an example</td>
<td>Take FAS 133 as an example</td>
</tr>
<tr>
<td>Nature of</td>
<td>Arm’s-length transaction</td>
<td>Current transaction</td>
</tr>
<tr>
<td>parties</td>
<td>Unrelated parties</td>
<td>Not in a forced or liquidation sale</td>
</tr>
<tr>
<td>Amount</td>
<td>—</td>
<td>The amount at which asset (liability)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>could be bought (incurred) or sold</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(settled)</td>
</tr>
<tr>
<td>Date when the</td>
<td>—</td>
<td>—</td>
</tr>
<tr>
<td>amount is</td>
<td></td>
<td>At the measurement date</td>
</tr>
<tr>
<td>decided</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

FAS 157 defines fair value as “the price that would be received to sell an asset or paid to transfer...
a liability in an orderly transaction between market participants at the measurement date”, which unifies the definition of fair value in the United States. The new definition of fair value still emphasizes the “exchange price”, which has been used for a long time in specific standards (FASB, 2006). It also emphasizes “orderly transaction” “market participants” “measurement date”, meaning the day or the time when “firm commitment” is made (Jiashu Ge, 2007) and states that fair value is the “exit price” that considers transaction costs (Xiaoyan Wang, 2008). In the subsequently released ASU 820, this definition is still in use (FASB, 2011).

3.2 Changes in the concept of fair value in China

The first self-definition of fair value in China stipulated fair value as “the amount at which assets could be exchanged or liability could be settled in a fair and willing transaction by two parties who are familiar with the situation” (Ministry of Finance, 1998). This concept was relatively mature at the time, including all points of fair value. The Basic Standard promulgated by the Ministry of Finance on February 15th, 2006 clearly recorded fair value in Article 42, Item 5, and stipulated that “under fair value measurement, assets and liabilities are measured as the amount at which assets could be exchanged or liability could be settled in a fair and willing transaction by parties who are familiar with the situation”. The concept did not change greatly from the first self-defined one.

In 2014, the Ministry of Finance revised the concept of fair value in the newly issued Basic Standard, stating that “under fair value measurement, assets and liabilities are measured at the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date”. The new definition changed the “parties who are familiar with the condition” to “market participant”, changes “fair and willing transaction” to “orderly transaction”, and stresses “exit price” and “measurement date”. In CAS 39 issued in the same year, fair value referred to “the price that market participants can receive to sell an asset or should pay to transfer a liability in an orderly transaction at the measurement date”. Although the expression was slightly different from that in Basic Standard, the meaning expressed was completely consistent. Since then, China has begun to adopt the new definition.

<table>
<thead>
<tr>
<th>Time</th>
<th>1998</th>
<th>2006</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumptions</td>
<td>Fair transaction</td>
<td>Fair transaction</td>
<td>Orderly transaction</td>
</tr>
<tr>
<td></td>
<td>Willing transaction</td>
<td>Willing transaction</td>
<td></td>
</tr>
<tr>
<td>Nature of parties</td>
<td>Parties familiar with the situation</td>
<td>Parties familiar with the situation</td>
<td>Market participant</td>
</tr>
<tr>
<td>Amount</td>
<td>the amount at which assets could be exchanged or liability could be settled</td>
<td>the amount at which assets could be exchanged or liability could be settled</td>
<td>The price can be received to sell an asset or paid to transfer a liability</td>
</tr>
<tr>
<td>Date when the amount is decided</td>
<td>——</td>
<td>——</td>
<td>At the measurement date</td>
</tr>
</tbody>
</table>

3.3 Summary

Based on the changes in the concept of fair value in China and the United States, it can be found that with the extensive and profound researches on fair value, in both the United States and China, the concept of fair value is constantly changing and becoming comprehensive and strict. China’s definition of fair value has always been basically consistent with that in the United States, but the concept is updated later. For example, the definition of fair value in China’s 2006 Basic Standard is basically the same as that used in the United States before 2006 (see Table 3). The updated definition in China in 2014 is consistent with the definition applied in the United States since 2006 (see Table 4). This shows that China’s research on fair value is still not at the forefront of related fields.
Table 3. Comparison of American Fair Value Concepts (Old Concept)

<table>
<thead>
<tr>
<th>Country</th>
<th>USA</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Before 2006 (take FAS 133 as an example)</td>
<td>2006</td>
</tr>
<tr>
<td>Assumptions</td>
<td>Current transaction</td>
<td>Fair transaction</td>
</tr>
<tr>
<td></td>
<td>Not in a forced or liquidation sale</td>
<td>Willing transaction</td>
</tr>
<tr>
<td>Nature of parties</td>
<td>Willing parties</td>
<td>Parties familiar with the situation</td>
</tr>
<tr>
<td>Amount</td>
<td>The amount at which asset (liability) could be bought (incurred) or sold (settled)</td>
<td>the amount at which assets could be exchanged or liability could be settled</td>
</tr>
<tr>
<td>Date when the amount is decided</td>
<td>——</td>
<td>——</td>
</tr>
</tbody>
</table>

Table 4. Comparison of American Fair Value Concepts (New Concept)

<table>
<thead>
<tr>
<th>Country</th>
<th>USA</th>
<th>China</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>2006 to present</td>
<td>2014 to present</td>
</tr>
<tr>
<td>Assumptions</td>
<td>Orderly transaction</td>
<td>Orderly transaction</td>
</tr>
<tr>
<td>Nature of parties</td>
<td>Market transaction</td>
<td>Market participant</td>
</tr>
<tr>
<td>Amount</td>
<td>The price that would be received to sell an asset or paid to transfer a liability</td>
<td>The price can be received to sell an asset or paid to transfer a liability</td>
</tr>
<tr>
<td>Date when the amount is decided</td>
<td>At the measurement date</td>
<td>At the measurement date</td>
</tr>
</tbody>
</table>

4. Similarities and differences between China and the United States in fair value measurement

This section will analyze the current CAS 39 in China with the current US FAS 157, comparing the similarities and differences between the keywords in the definition, initial measurement, valuation techniques, input values, fair value measurement of assets and liabilities, and disclosure requirements.

4.1 Similarities between FAS 157 and CAS 39

A large portion of the content of FAS 157 is basically the same as that of CAS 39. First of all, the interpretation of the fair value of the two is basically the same. With regard to the “assets and liabilities” mentioned in the concept, FAS 157 and CAS 39 both require that enterprises should consider the features of assets or liabilities while applying fair value measurement, such as the status, location, restrictions on use, etc. The unit of measurement should also be considered, which refers to “the smallest unit in which assets or liabilities are measured separately or in combination” (Chaolin Chen, 2014). The two standards also state that the transaction should occur in the principal market, that is the market with the highest volume of transaction of the asset or liability or with the highest activity level, or in the most favorable market when there is no principal market, and the transaction should be an orderly and non-forced transaction (Chaolin Chen, 2014). Both of the standards require market participants to be independent, familiar with situation, capable and willing participants, and the price should be determined at the measurement date.

Second, the two standards are roughly the same on how to measure fair value. They both stipulate that the fair value of an asset or liability should be equal to the transaction price at the time of initial recognition, but unequal conditions are allowed. FAS 157 and CAS 39 allow the use of one or more of the market approach, income approach, and cost approach when conducting valuations, and stipulate that the valuation techniques should not be changed casually, but when new markets appear or new information is obtained, etc., the valuation techniques can be changed and should be disclosed accordingly. Both standards divide input values into observable input values and unobservable input values according to the reliability of the values. The observable input
values are further divided into the first and second levels, wherein the first level should be used preferentially. The unobservable input values are the third level. The two standards are roughly the same on the circumstances in which the input values should be used and the level of input value can be changed, and on the requirement that the lowest level of the input values decides the level of the result of fair value measurement. In addition, FAS 157 and CAS 39 both require enterprises choose the price that best represents that fair value of the asset when there are “inputs based on bid and ask prices” (Chaolin Chen, 2014).

Third, FAS 157 and CAS 39 have similar rules about how to measure assets and liabilities at fair value. For example, they both require when the non-financial assets are measured at fair value, the ability of market participants to use the assets for optimal use to generate economic benefits should be considered, and the optimal use should be considered from the perspective of market participants. Although CAS 39 names optimal use as the “best use” and FAS 157 names it as the “highest and best use”, they both refer to the use by which the value of the non-financial assets or their combinations is maximized. Meanwhile, both standards stipulate that enterprises should consider the legality, practicability and profitability of the optimal use. FAS 157 and CAS 39 both divide the preconditions of valuation into “in-exchange”, that is the non-financial assets can be used alone to generate maximum value, and “in-use”, that is the non-financial assets are combined with other assets or liabilities to produce maximum value. The two provisions also make consistent assumptions about the fair value measurement of liabilities, assuming that liabilities continue to exist after the transfer. Both of them stipulate that the “non-compliance risk” should be considered in measuring the fair value of liabilities.

Besides, FAS 157 and CAS 39 have similar requirements on information disclosure. Both require enterprises to show disclosures in a table format. The two standards also differentiate sustainable fair value measurement from non-sustainable fair value measurement, and put forward detailed disclosure requirements respectively. For instance, they require enterprises disclose the items measured at fair value and amount and reasons, the level of input values, valuation techniques used when the second and third level of input values are used, reasons for changing valuation techniques, etc.

4.2 Differences between FAS 157 and CAS39

The differences between FAS 157 and CAS 39 distribute in various parts of the fair value measurement standards. Firstly, in interpreting the concept of fair value, the difference between the two lies in the definition of the most favorable market (Xin Zhang, 2018). FAS 157 stipulates that the most favorable market can sell assets at the highest price or transfer liabilities at the lowest cost after considering the transaction costs, while CAS 39 stipulates that transportation cost should also be considered when deciding the most favorable market.

Secondly, in conducting fair value measurement, FAS 157 believes that the risk-related assumptions like risk related to valuation techniques should be considered throughout the process of using the input values, while CAS 39 requires consideration of risks when using unobservable input values. As for the observable input values, FAS 157 believes that values “obtained from sources independent of the reporting entity” are sufficient, while CAS 39 emphasizes values should come from the market. FAS 157 provides examples of the situations when the price of assets or liabilities is unequal to the fair value in the initial measurement, further explains the three valuation techniques, and has detailed requirements when “there is a significant decrease in the volume and level of activity for the assets or liabilities” in the market where observable input values are located. Besides, CAS 39 believes that when the market condition changes, valuation techniques can also be changed.

Thirdly, in measuring the fair value of assets and liabilities, FAS 157 contains provisions for both financial assets and non-financial assets, while CAS 39 only contains requirements about non-financial assets (Meihua Chen, 2014). FAS 157 emphasizes that the highest and best use of assets should be considered at the “measurement date”, and states that credit risk should be considered when measuring the fair value of liabilities. On the other hand, CAS 39 limits the lowest fair value
of assets like current deposit, and divides the measurement of liabilities into three cases: when the same or similar liabilities exist, when there is no identical or similar liability but other parties hold it as an asset, when there is no identical or similar liability and no other party holds it as an asset.

Fourthly, there are some differences on the disclosure requirements between FAS 157 and CAS 39. FAS 157 states that enterprises can disclose valuation techniques and reasons for changing only in the annual report and encourages enterprises to combine information disclosed under other accounting pronouncements. On the other side, CAS 39 defines sustainable and non-sustainable fair value measurement, stipulates that enterprises should disclose the quantitative information of important and reasonably obtainable unobservable input values, sensitivity analysis when unobservable input values may seriously affect fair value measurement, information about liabilities measured at fair value and issued with an inseparable third-party credit enhancement, etc.

Besides, FAS 157 is required to be applied retrospectively to some financial instruments as of the beginning of the fiscal year when this Statement is initially applied, while CAS 39 does not require retrospective adjustments. In addition, CAS 39 contains provisions on fair value measurement when enterprises manage financial assets and liabilities based on the net exposure of market risk or credit risk.

4.3 Summary

In general, the focus of the two provisions is different. CAS 39 focuses more on the theoretical guidance and details the definition of each important term, whereas FAS 157 focuses more on the practical application and examples are often followed, causing that the length of FAS 157 is much longer than that of CAS 39 (Fuglister J, Bloom R, 2008). Furthermore, FAS 157 contains a wider range of fair value measurement and is richer in content. The standards of the two countries differ slightly in the detailed concept interpretation, disclosure requirements, connection requirements, etc., but the differences do not influence the overall convergence: overall, the two provisions are basically consistent.

5. Conclusion

Combined with the scholars’ research on the fair value of China and the United States, this paper analyzes the fair value of the two countries from the development process, the conceptual change and the similarities and differences between FAS 157 and CAS 39. The development of fair value of the two countries has experienced some twists and turns, but on the whole, the application of fair value measurement is an inevitable phenomenon, the concept of fair value is more comprehensive in both countries, and the current fair value measurement standards, though there are still some differences, are almost identical.

The author believes that the differences in the fair value between the two countries on the above three aspects are mainly attributed to the following points. Firstly, the differences in economic development between the two countries create different chances for the appearance of fair value in China and the United States. The US economy grows rapidly, so fair value is the inevitable outcome in order to adapt the transaction diversification under the continuous development of the economy. China’s economy development starts late. At that time, there were foreign accounting systems to learn from, so the appearance of fair value in China is influenced by China’s economy as well as the foreign accounting system. Thus, China’s fair value system has been basically complete since its formal appearance and its update is later than that in the United States. Secondly, the property rights of enterprises in two countries are different. In the United States, where private ownership has the whip hand, accounting system focuses more on the interest of the public, while most of Chinese enterprises are publicly-owned, leading to the emphasis on the interest of the government. Therefore, FAS 157 and CAS 39 emphasize different points (Jianing Zheng, 2014). Thirdly, the cultural environments of the two countries are different. Chinese people are more careful and conservatism, so the fair value measurement standard in China is more rigorous with detailed explanation on basic concepts (Lu Lu, 2013). Lastly, the political systems of the two countries are different. The accounting system influenced by capitalism is different from that affected by
socialism (Lei Wang, Xiaorong Chen, 2006), so is the fair value measurement standard.

At present, due to the incomplete economic development, the imperfect enterprise management system, etc., there are still problems in the application of fair value measurement in China when compared with that in the United States. Since the release of CAS 39, the researches of domestic experts and scholars about such topics have not been very popular. Therefore, what problems exist in the application of fair value measurement in China and how to solve them are the future research directions of the author.

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