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Decision Usefulness of Comprehensive Income: Literature Review and Research Prospects

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ABSTRACT. *In this paper, the literature and research status of comprehensive income are reviewed. The standardization process of comprehensive income is reviewed first. Then, based on the comparative study with net income, the prediction ability and value relevance of comprehensive income are discussed. Finally, the disclosure inhibition of comprehensive income is discussed. Restraining real earnings management behavior, and then increase the transparency of accounting information are theoretically deduced. On this basis, future research is prospected.*

KEYWORDS: *comprehensive benefits, other comprehensive benefits, usefulness, transparency*

1. Introduction

Since it was put forward in 1953, the concept of decision usefulness has gradually become the mainstream view of modern financial reporting objectives. Unlike the concept of "accountability" which focuses on reporting to clients, the concept of "decision usefulness" refers to the users of accounting information. From this point of view, the usefulness of accounting information is reflected in helping accounting information users making decisions.

Comprehensive income is based on the concept of assets and liabilities, and its standardization has undergone a long process. Since the 1930s, scholars have been discussing the concept of "all-inclusive" (the initial concept of comprehensive income) and "current operating performance" in accounting theory. Under the conceptual framework of "all-inclusive", accounting principles are based on the clean surplus theory, that is, clean surplus requires the balance sheet and profit statement to fully and clearly express all the income, expenditure, income and loss of the enterprise in order to reflect the market value of the enterprise. Supporters of comprehensive income argue that "all-inclusive" measures corporate performance better than other aggregated earnings measures, such as net income, because it

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includes all changes in net assets over the period. The Financial Accounting Standards Board of the American Accounting Association (AAA) (1997) pointed out that the analysts' forecasting can only be used to evaluate stocks when using comprehensive earnings to forecast. The most useful income in stock price valuation must be comprehensive.

On the contrary, "current operating performance" does not include unconventional income, expenditure, income and loss. Opponents of comprehensive income argue that excluding these special items will better reflect the day-to-day operating conditions of enterprises, because managers should not take income items into account beyond their control when making decisions.

The usefulness of comprehensive income reporting is the key to the presentation of comprehensive income. Up to now, with IASB and FASB completing the formulation of comprehensive income related criteria, listed companies in most countries around the world need to disclose the relevant information of comprehensive income according to the model of "net income + other comprehensive income = comprehensive income". On the one hand, this disclosure method continues the usefulness of net income, on the other hand, it recognizes the decision usefulness of comprehensive income. At present, there are two main research directions of scholars on the usefulness of comprehensive income: one is the comparison of value relevance and predictive ability between comprehensive income and net profit; the other is to verify whether the disclosure of comprehensive income can effectively improve the overall penetration of accounting information. Thus improving the usefulness of decision-making. Increased transparency of accounting information due to the disclosure of comprehensive earnings is also conducive to improving the usefulness of decision-making, mainly reflected in reducing the cost of accounting information acquisition and discovering earnings management activities within enterprises.

Based on the above logic, this paper reviews the standardization process of comprehensive income, combines the relevant literature on the comparison of the usefulness of comprehensive income and net income decision-making from two perspectives of value relevance and predictive ability, and deduces theoretically that the disclosure of comprehensive income increases the transparency of accounting information and inhibits real earnings management. On this basis, the existing research is reviewed and the future research is prospected.

2. The process of standardization of comprehensive income

Since FASB put forward the concept of "comprehensive income" in 1980, the use of this concept has been full of controversy. FASB issued Statement 130 (SFAS 130) in 1997 as a stage result of this long-standing debate on " all-inclusive" and "operating performance". FASB (1984) indicates that comprehensive income-based earnings should be reported in the full set of financial statements, and that comprehensive income is the only aggregated income measure among the top ten financial elements. However, even if FASB (1985) accepts it in its conceptual

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framework, the opponents of aggregate income argue that the non-recurrent items included in aggregate income are not conducive to the prediction of future cash flows and that managers are not responsible for their almost uncontrollable income components (Holthausen and Watts, 2001). The concept of comprehensive income, which is not immediately implemented by the specific accounting standards of US GAAP, is not implemented. Before the promulgation of SFAS 130 (1997), FASB allowed related items of overall earnings to bypass the profit and loss statement and directly adjust the statement of changes in equity.

In the 1990s, FASB and other social groups paid more attention on the concept of Revenue. Financial instrument projects directly promote the standardization of comprehensive income. Because if there is no concept of comprehensive income, the additional income items created by derivatives and hedging activities are considered "dirty surplus", because they do not conform to the concept of income at that time and can only be compromised into equity. On the one hand, with the improvement of the comprehensive income theory, on the other hand, considering the increasing demand of the practical circles for the comprehensive income, FASB began to require the report of the comprehensive income. SFAS 130 (1997) stipulates that, in the fiscal year commencing after December 15, 1997, the adjustment of comprehensive income and its components ("other comprehensive income") shall be reported in the main financial statements of the enterprise.

IASB promotes the concept of comprehensive income later. IASB put forward the concept of comprehensive income in 2007, and required the accounting entity to disclose all recognized income and expenses in the current period. This is a result of IASB drawing lessons from US GAAP. In 2008, IASB and FASB added other comprehensive income items to achieve the coordination of IASB and FASB on this issue.

3. Contrast of decision-making usefulness between comprehensive income and net income

As the most important quality feature of accounting information, the usefulness of decision-making is the criterion for evaluating whether an accounting information has value or not. As for the comparison between the usefulness of comprehensive income and net income, although the usefulness of comprehensive income has been affirmed in theory and incorporated into the accounting standards system, the empirical research has not yet been conclusive, mainly reflected in the correlation between the predictive ability and value of the two.

3.1 Forecasting Ability of Comprehensive Income

For managers, earnings forecasting is an important part of tracking business performance and supporting their related decisions; for investors, earnings forecasting can help them compare their own investment and earnings, thus making investment decisions. Because decisions can only be made if they think future

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earnings can cover costs. Usually accounting information users will use future earnings to predict future cash flows, so the comparison of different definitions of earnings is also very important to predict future cash flows. Therefore, the predictive ability of information is an important feature to determine the usefulness of information.

The income and cash flow generated by the operation of an enterprise reflect the performance of the enterprise. The inertia of earnings makes information users use current performance to predict future performance (Dechow et al., 1998). Therefore, the ability of comprehensive income prediction is embodied in the prediction of future cash flow and future income of the enterprise.

In the aspect of forecasting income, because other comprehensive income contains only one period of information and is not a daily business project, other comprehensive income does not have a long-term sustained trend, and the long-term accumulation of other comprehensive income contains many unexpected factors which are more unfavorable to the forecast of future income. Some scholars conclude that net income has a stronger ability to predict future performance (Dhaliwal et al., 1999; Paul et al., 2010; Kanagaretnam et al., 2009). However, their conclusions on the prediction ability of other comprehensive income are slightly different. Paul et al. (2010) argues that the whole or part of other comprehensive benefits cannot help policymakers predict future returns. Kanagaretnam et al. (2009) concluded that other comprehensive earnings are related to company performance, but its incremental information does not help the comprehensive earnings better predict future net earnings.

But some scholars hold different opinions. Biddle and Choi (2006) argue that there is no clear definition of income that can provide decision makers with clear information about future earnings, but relatively speaking, comprehensive earnings show the strongest ability to predict future earnings.

In terms of cash flow forecasting ability, there are also disputes. Because of the particularity of other non-current items, some scholars believe that net income can better predict cash flow (Dhaliwal et al., 1999; Biddle and Choi, 2006). Dhaliwal et al. (1999) found that net income has a better predictive ability than comprehensive income for cash flows lagging one year. But other scholars believe that comprehensive income is a better predictor of future cash flow (Kanagaretnam et al., 2009).

3.2 Value Relevance of Comprehensive Income

Value relevance implies the direct valuation theory used to study the change of stock market value and the equity theory provided to investors in the valuation model when evaluating companies, and usually carries out incremental correlation research (Holthausen and Watts, 2001).

Hirst and Hopkins (1998) first found in the behavioral laboratory environment that SFAS 130's disclosure of portfolio helps buyer's stock analysts to estimate the

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stock price of a listed company more accurately. Although they believe that the simple rearrangement of financial statements by SFAS 130 will not affect the judgment of most users of financial statements, from a behavioral point of view, analysts will be affected by these value-related information. After that, some scholars concluded that the disclosure of comprehensive income would not lead to the inevitable increase of value relevance (Ernstberger, 2008; Devalle and Magarini, 2013). Cahan et al. (2000) Using data from New Zealand listed companies, also find that there is no evidence that the value relevance of comprehensive income items exceeds net income for the statement of owner's equity changes. At the same time, Ernstberger (2008) will use IFRS and US GAAP to study and compare the German listed companies. It is found that the comprehensive income under IFRS provides more incremental value-related information than the comprehensive income under US GAAP, because the unrealized income of the financial assets available for sale in the other comprehensive income are more important than those under US GAAP. Loss is significantly correlated with incremental value. Shahwali et al. (2017) has a different view. They believe that comprehensive returns show a stronger correlation with stock prices than net returns.

There are some different voices on other comprehensive benefits. Some scholars believe that other comprehensive benefits may not have value relevance, but the specific components of other comprehensive benefits, such as currency conversion adjustment, derivatives and hedging, will have value relevance (Mitra et al., 2009; Jahmani Y et al., 2017).

4. Comprehensive income and transparency of accounting information

4.1 Transfer of earnings management

Earnings management is usually divided into accrued earnings management and real earnings management. Accrued earnings management deals with earnings in different accounting ways. It changes the way of profit distribution and affects the total amount of profits, but it will not have any impact on the cash flow of enterprises. Real earnings management is different. Enterprises manage earnings through real economic transactions. Real earnings management will affect profit distribution, profit level and cash flow.

With the formulation and improvement of various supervision systems, the accounting system has been more and more widely covered, and the accrued earnings management behavior has been well controlled. The earnings management behavior of enterprises is gradually approaching the real earnings management. Periods et al. (2008) found that the Sarbanes-Oxley Act (SOX) promulgated in 2002 is of great significance to earnings management. Accrued earnings management has been growing steadily since 1987, but has declined since the adoption of the Sebans Act in 2002. The Sarbanes Act is not only a turning point to change accrued earnings management, but also has an impact on real earnings management. Real earnings management practices continued to decline until 2002, but rebounded after

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the passage of the Sarbanes Act and increased significantly. This reflects the fact that the earnings management behavior of enterprises has begun to shift from accrued earnings management to real earnings management.

4.2 The relationship between comprehensive income (other comprehensive income) and true earnings management

First of all, we need to identify the importance of cash flow in the operation of enterprises. In modern enterprises, the importance of cash flow is evident. When managers need to predict future debt cost trends and management company risks, the volatility of operating cash flow will be an important index (Hung and Wakayama, 2005).

Secondly, net income is often regarded as the reference value of future cash flow. Many literatures show that it has the ability to predict future cash flow. However, some scholars have found that comprehensive income and other comprehensive income can also help enterprises predict future cash flow, and even have better predictive ability (Kanagaretnam et al., 2009).

Although the difference between net income and comprehensive income is still controversial, it is undeniable that comprehensive income including other comprehensive income has certain ability to predict cash flow.

Real earnings management will affect the cash flow of enterprises, which can be reflected in the real earnings management model proposed by Roychowdhury (2006). When Roychowdhury proposed the model, he divided it into three parts: cash flow, production cost and discretionary cost. Firstly, the abnormal values of these three indicators are calculated, and then the overall level of real earnings management is measured by these abnormal values. Roychowdhury attributes the abnormal cash flow to real earnings management, which means that real earnings management will lead to abnormal cash flow. Therefore, the author finds that real earnings management is an important factor affecting cash flow anomalies.

Therefore, the author reasonably speculates that by increasing the disclosure of comprehensive income and other comprehensive income related information, accounting information users will effectively enhance the ability to predict corporate cash flow, that is, enterprises disclose more cash flow related information. In order to avoid the abnormal cash flow, enterprises will control or reduce their real earnings management behavior. Therefore, the disclosure of comprehensive income and other comprehensive income can effectively restrain the real earnings management of enterprises.

5. Research and Prospects for the Future

The forecasting ability has a great relationship with time. At present, most of the research on the forecast ability of comprehensive income is based on long-term data, and less attention is paid to the short-term response of comprehensive income. The

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short-term forecasting ability of comprehensive income and its comparison with the long-term is a direction that can be further explored at present.

Value relevance has strong regional characteristics, and the same country or region is relatively easy to get the same results. By comparing the value relevance of comprehensive income in different regions, we can study the different factors that affect the value relevance.

Although it has been proved theoretically that comprehensive income (other comprehensive income) inhibits real earnings management activities, it has not been approved by empirical research, and needs to be further studied empirically.

We need to make it clear that comprehensive income is not omnipotent. The disclosure of comprehensive income is not to replace net income, but to provide accounting information needed by users of accounting information complementarily. Comprehensive income has a certain ability to forecast future income and cash flow, but also has a certain correlation with enterprise value. This is the reason why we promote the standardization of comprehensive income and carry out the reform of comprehensive income statement, but it does not mean that net income will lose its function. Reasonable application of disclosure of comprehensive and net income will help us to understand and utilize accounting information more effectively.

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