

# Application of Comprehensive Income on Analysis of Enterprise Finance

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**Abstract.** Comprehensive income information is conducive for the report user to make a secure decision when they analyze enterprise finance. Stating the necessity of comprehensive income index to financial analysis, based on comprehensive income index, this paper builds financial indexes such as comprehensive rate of return on assets, growth rate of comprehensive income, comprehensive rate of return on net assets, growth rate of comprehensive income, etc.. It is a breakthrough for financial analysis index of an enterprise. These indexes can be applied to the analysis of the profitability and ascending ability of the enterprise. Their aim is to improve the scientificity and veracity of enterprise financial analysis as well as to help report users to make a correct financial decision.

## 1. Introduction

Comprehensive income refers to the change in owners' equity caused by any transaction or event other than the transaction with the owner as its owner during a certain period. China's ministry of finance officially wrote comprehensive income into the accounting standards in 2014, and listed other comprehensive income in the balance sheet, income statement and statement of changes in owners' equity, disclosing it in detail in the list of notes. The presentation of comprehensive income information provides more complete financial information for enterprise financial analysis; hence, it is necessary to exercise comprehensive income information to conduct enterprise financial analysis, which is helpful to improve the scientificity and veracity of enterprise financial analysis.

## 2. The Necessity of Exercising Comprehensive Income Index to Conduct Financial Analysis

The total amount of comprehensive income includes net profit and other comprehensive income. Net profit is the net income realized in the current period, which is one of the most important indicators in financial analysis. Other comprehensive income refers to the net amount of gains and losses not recognized in the profit and loss in accordance with the accounting standards after deducting the impact of income tax, which is essentially the income recognized in the current period but will be realized in the future. When doing financial analysis and prediction, Enterprises should not only pay attention to the change of net profit, but also the change of other comprehensive incomes and their composition. The financial analysis ignoring other comprehensive incomes is not dependable. For a long time, China's enterprise profitability analysis is mainly based on net profit. net profit is based on accrual accounting confirming that the net income of this period has been achieved, which is actually a certain extent to which it reflects the enterprise's profit ability level, but this kind of analysis is not complete whose conclusion sometimes is even incorrect.

Table 1. Part of the financial information of Company A and Company B in 2018

Item	Company A	Company B
Total annual average paid-up capital (10,000 Yuan)	500	500
Net profit (10,000 Yuan)	120	120
The total amount of annual average assets(10,000 Yuan)	1000	1000
Annual average net assets(10,000 Yuan)	600	600
Total comprehensive income(10,000 Yuan)	120	200
Return on asset(10,000 Yuan)	12%	12%
Return on equity(10,000 Yuan)	20%	20%

In accordance with Table 1, based on net profit, return on assets and return on equity of Company A is equal to those of Company B, from which we can come to a conclusion that the profitability of Company A is the same as that of Company B. But in fact, the profitability of Company A is not the same as that of Company B. Total comprehensive income of Company B is 800,000 Yuan more than that of Company A. If this 800,000 Yuan is the change in the fair value of other creditor's rights investment, and it will be converted into investment income when it is disposed of in the future, greatly improving the level of income in the future period. Thus, applying comprehensive income on analyzing enterprise profitability may take all factors into consideration which influence the owner's wealth, comprehensively judge the profitability of all the enterprise's resources, objectively and completely evaluate the business performance and improve scientificity and veracity of analysis of the enterprise' profitability.

### 3. The Concrete Application of Comprehensive Income Index on Enterprise Financial Analysis

#### 3.1. Application of comprehensive income index on enterprise profitability

##### 3.1.1. Application of comprehensive income on analyzing the profitability of enterprise assets operation

Operating profitability of assets refers to the ability to use the income generated by assets. The return on assets was commonly used to analyze the operating profitability of assets. On this basis, "comprehensive rate of return on assets" is added to indicate the ability to use all assets to get all income. The formula is as follows:

$$\text{Comprehensive rate of return on assets} = \frac{\text{total amount of comprehensive income}}{\text{total amount of average assets}} \times 100\%$$

Comprehensive rate of return on assets completely reflects the profitability of the total assets of the enterprise. Under normal circumstance, the higher the quantitative value of the index, the better it indicates the assets of the enterprise is used, the stronger the profitability of the assets of the enterprise, and the more efficient the management of the enterprise. From above data, it is calculated that comprehensive rate of return on assets of Company A is 12%, comprehensive rate of return on assets of Company B is 20%, which is higher than that of Company A, illustrating that profitability of Company B is stronger than that of Company A.

##### 3.1.2. Application of comprehensive income on analysis of capital operation profitability

Capital operation profitability refers to the ability of the owners of enterprises to obtain profits through the capital operation. Analysis index was commonly used such as Return on equity, return on capital and earnings per share, etc., on the basis of which index such as comprehensive return on equity and comprehensive rate of return on capital are supplemented to comprehensively analyze capital operation profitability of the enterprise.

###### 3.1.2.1. Comprehensive return on equity

This index refers to the ratio of total comprehensive income to average net assets of the enterprise over a given period, which indicates the ability of an investor to invest in the enterprise's own capital to obtain comprehensive returns. The formula is as follows

$$\text{Comprehensive rate of return on equity} = \frac{\text{total comprehensive income}}{\text{average net assets}} \times 100\%$$

The comprehensive rate of return on net assets is a comprehensive index to evaluate an enterprise's equity capital and its accumulated remuneration, which can reflect the comprehensive benefit of its capital operation. Generally speaking, the larger the index value of comprehensive return on net assets is, the stronger the enterprise's ability to obtain income from equity capital is, the better the operation efficiency is, and the higher the degree of protection for investors and creditors is. Based on the above data, it can be calculated that the comprehensive rate of return on net assets of Company A is 20%, and Company B' is 33.33%, which indicates the capital operation

capacity of Company B is stronger than Company A's. This index is universal, wide range of applications without industry restrictions.

#### 3.1.2.2. Comprehensive rate of return on capital

This index refers to the ratio between the total comprehensive return and the average paid-in capital in a certain period, reflecting the ability of investors to invest capital to obtain returns. Its formula is as follows

$$\text{Comprehensive rate of return on capital} = \frac{\text{the aggregate comprehensive income}}{\text{average total paid-up capital}} \times 100\%$$

This index is closely related to the investor's interest, reflecting the profitability of the investor's initial investment, including not only net income realized for the period (net profit), but also incomes recognized in the current period to be realized in the future (other comprehensive income). Normally speaking, the larger the index value, the stronger the profitability of investors to invest capital. According to the above data, it can be calculated that the comprehensive rate of return on capital of Company A is 24%, and Company B's is 40%, which indicates that the profitability of Company B's investor to invest capital is stronger than Company A's.

#### 3.1.3. Application of comprehensive income on analyzing the profitability of listed companies

##### 3.1.3.1. Comprehensive earnings per stock

On the basis of calculating index of "earnings per stock", index "comprehensive earnings per stock" is added, including basic comprehensive earnings per share and diluted comprehensive earnings per share, respectively as a supplement to the basic and diluted earnings per share indicators. The comprehensive income per share reflects the comprehensive income attributable to each common stock during a certain period. Its formula is as follows

$$\text{Comprehensive earnings per stock} = \frac{\text{aggregate comprehensive income}}{\text{the weighted average of common shares outstanding}}$$

Compared with earnings per stock, this index can reflect complete profitability of each common stock. Commonly speaking, the higher the index value of comprehensive earnings per stock, the stronger the profitability of the enterprise, the better the operation situation and financial situation of the enterprise.

##### 3.1.3.2. Consolidated return on common equity

This index is the ratio of aggregate income attributable to common shareholders (i.e., total comprehensive income - preferred stock dividends) to common equity. Its formula is as follows

$$\text{Consolidated return on common equity} = \frac{\text{the aggregate comprehensive income} - \text{preferred stock dividend}}{\text{Average common equity}} \times 100\%$$

##### 3.1.3.3. P/E ratio (Price-earnings ratio)

P/E ratio is one of the important indexes to evaluate the stock market performance of joint-stock companies. It can be applied to judge the potential value of enterprise stocks compared with other enterprises. The current P/E ratio is calculated by comparing the common stock market price with the current earnings per share, which reflects how much investors are willing to pay for the earnings of one Yuan. The P/E ratio reflects the market's expectation of an enterprise's ability to create value for its shareholders. Its earnings should be all the current earnings, including all the factors that constitute the earnings. Comprehensive earnings well meet this requirement. Therefore, we should calculate the P/E ratio according to the comparison of common stock market price and current comprehensive earnings per share. The following is the formula,

$$\text{P/E ratio} = \frac{\text{market price per common stock}}{\text{comprehensive earnings per stock}}$$

The main purpose of calculating P/E ratio is to predict the future stock price of a company. The P/E ratio based on comprehensive income can give a more accurate explanation of the rationality of

stock price, so as to conduct stock price analysis and forecast, which can reduce the prediction error and improve the accuracy of prediction.

### 3.2. Application of comprehensive income on analyzing enterprise growth ability

Growth ability usually refers to the development trend and development potential of future production and operation activities of enterprises, also known as growth ability. Analysis of growth ability may be conducted on two aspects such as analysis of growth rate and analysis of residual income as follows.

#### 3.2.1. Analysis of growth rate

Analysis of growth rate usually combines the growth rate of shareholders' equity, the growth rate of earnings, the growth rate of sales and the growth rate of assets. The value of an enterprise mainly depends on its profitability and its growing ability. The growth of corporate earnings is an important aspect reflecting the growth ability of an enterprise, so the growth rate of earnings is one of the important indexes for the analysis of growth ability. Generally, the commonly used indexes to analyze the growth rate of corporate income include the growth rate of net profit and the growth rate of main business profit. In order to reflect the development and change of the total income of enterprises, an index of "comprehensive income growth rate" can be added on this basis, which should be the ratio of the growth amount of comprehensive income in the current period to the comprehensive income in the base period. Its formula is as follows

$$\text{Comprehensive income growth rate} = \frac{\text{comprehensive increased income for the period}}{\text{comprehensive income for basic period}} \times 100\%$$

The higher this index value, the more it indicates the increase of enterprise comprehensive income. If the index is negative, it indicates that the enterprise comprehensive income decreases and the income decreases. The reason is that comprehensive income includes net profit and other comprehensive income. Compared with the growth rate of net profit, this index includes the influence of other comprehensive income and can reflect an increase situation of enterprise comprehensive income. When analyzing enterprise growth ability, we may combine indexes such as comprehensive income growth rate, net profit growth rate and main business profit growth rate to comprehensively analyze the growth ability of enterprise income.

#### 3.2.2. Analysis of residual income

The growth ability of modern enterprises should reflect an increase in shareholder equity or shareholder value. Residual income measures the increase in the carrying value of shareholders' equity after deducting the necessary cost of equity capital. Residual income reflects the increase of shareholders' wealth, while the increase of residual income reflects the company's ability to grow. Its formula is as follows

$$\text{Residual income} = \text{capital income} - \text{capital cost}$$

Net profit index is currently used for analysis, based on which the formula is workable though, however, it is more scientific and reasonable to use the total comprehensive income to analyzing residual income instead of net profit. Compared with net profit, the comprehensive income includes the income information confirmed in the current period but to be realized in the future. The analysis based on the comprehensive income can take into account all factors affecting the owner's wealth, reduce the error of prediction, improve the accuracy of prediction, and better meet the needs of decision-makers.

Besides, Comprehensive income information can also be used in the analysis of the solvency of enterprises, especially in the analysis of the long-term solvency of enterprises that must pay attention to the impact of comprehensive income on the solvency.

#### **4. Problems to be Paid Attention to When Comprehensive Income Is Used for Financial Analysis**

The application of comprehensive on analyzing profitability and evaluating business performance doesn't mean that comprehensive income is the only index to use. An index system should be built, including comprehensive income, to completely, scientifically and objectively analyze and evaluate profitability, growth ability and debt-paying ability of enterprise so as to increase the accuracy and scientificity of enterprise financial analysis and prediction, which is helpful for the enterprise to make right financial decision.

Other comprehensive income indexes are also important parts of comprehensive incomes. They can be classified into two major categories: the first is the one that cannot be reclassified into profit and loss; the second is the one that will be reclassified into profit and loss. These two other comprehensive incomes have different influences on the future cash flow of the enterprise. Other comprehensive returns that can be reclassified into gains and losses have relatively higher certainty than other comprehensive returns that can't be reclassified into gains and losses in terms of the time of impact on cash flow, and they also have high predictability in terms of cash flow direction effects. So when making financial analysis and forecasting we should not only pay attention to the change of total comprehensive income and net profit, but also consider other comprehensive income and its changes of the form. If necessary, in accordance with the requirements of comprehensiveness, objectivity and controllability, we should adjust other comprehensive income items to make the financial analysis more scientific and more reasonable.

#### **5. Conclusion**

Comprehensive income contains net profit and other comprehensive income which have the quality of comprehensiveness and objectivity. Although unrealized gain or loss items recognized as "other comprehensive income" during the period has no direct influence on current cash flow, it will generate influence on the future cash flow. Accuracy of future cash flow predicted with comprehensive income is more reliable than with net profit, which can better meet the need of controlling the future cash flow of the enterprise. Therefore, the financial analysis system should be built scientifically on the basis of comprehensive income so that the accuracy of financial analysis and prediction can be improved.

#### **References**

- [1] Chinese Institute of Certified Public Accountants, "Accountancy", 2019
- [2] Zhang Xianzhi, "Financial Analysis", Press of Dongbei University of Finance and Economics, 2018
- [3] Ministry of Finance, "Accounting Standard for Business Enterprises No. 30 - Presentation of Financial Statements" (2017)