

Original Research Article

Assets Evaluation and Analysis of Specific Approaches in Enterprise Mergers and Acquisitions

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Abstract: There will be many asset appraisal problems and related professional issues involved in enterprises mergers and acquisitions. An asset appraisal method occupies an important position in the purpose of asset evaluation, and therefore a reasonable approach can ensure the assessment results to the greatest extent. This article mainly introduces and summarizes the evaluation approaches that are frequently used in mergers and reorganizations^[1].

Keywords: Mergers and Acquisitions and Reorganizations of Enterprises; Selection of Asset Evaluation Approaches

1. Types of asset appraisal methods

Asset appraisal is a way to estimate the value of assets. Assets evaluation approaches are a set of methods on the basis of relevant techniques in the field of accounting and statistical which combined with the characteristics of assets appraisal. From the aspects of the assets evaluation criteria and technical line, the appraisal approaches can be divided into three different methods which are income approach, market approach and cost approach.

1.1 Income approach

The income approach refers to the general term of various methods to judge the value of assets by evaluating the present value of the expected future income of the assets under test, that is, to judge and estimate the value of assets by using the return on investment and discount method. Its basic premise includes the following three aspects. Firstly, the evaluated object can be predicted and measured in the common currency. Secondly, the expected future returns of the owners of assets and the risks they need to bear can be predicted and measured in monetary terms. Thirdly, the expected profit time of assets can be predicted^[2].

The procedure of income approach includes collection of the relevant data onto the evaluated object's future expected income, deduction of the expected income from the data, determination of the discount rate, analysis of the evaluation results and provision of the evaluation report. Its main technical approach is actually a collection of several specific methods of the expected income, which is mainly divided into two types. The assessment method of the future earnings of the appraisal object is used as the standard.

1.2 Market approach

The market approach is also called the market price comparison method, which refers to the analogy analysis of the recent transaction prices of the same or similar assets. A general term of various valuation techniques used to estimate the value of an asset. There are two basic premises. Firstly, there must be an active public market. Secondly,

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doi: 10.18282/ff.v9i2.866

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there must be a comparable activity in the public market.

The basic procedures of market law include the following five points. Firstly, select appropriate references in the open market. Secondly, select factors to be compared between the evaluated objects and selected references.

There are mainly two kinds of evaluation methods of market approach, which are approach and analogy adjustment approach. The formula of direct comparison method is: the value of the evaluation object = the transaction cost of the reference object * (the characteristics of the evaluation object A/the characteristics of the reference object A). The analog adjustment method mainly adjusts the value of the evaluation object on the basis of the price of the reference object cost by the comparison of differences between the reference objects. The market prices analogy method, which is based on the transaction price of the reference, analyzes the difference between the sales time and market conditions, and the formula is: asset appraisal value = price of reference + functional difference value + time difference value + trading situation difference value. The method of functional value, which is also based on the price of the reference object, adjusts the value of the evaluation object by considering the functional difference between the reference object and the evaluation object, and the formula is: asset appraisal value = reference transaction price * (production capacity of the appraisal object/production capacity of the reference object). Price indexes method evaluates the effect of benchmark time interval on asset values by reference to the basis of price consideration, and the formula is: asset appraisal value = reference transaction price * price change index. The new rate and price method is applicable to the difference between old and new degree between the evaluated object and the reference object, and the formula is: asset appraisal value = reference transaction price * (appraisal object/reference new rate). According to the relevant experience to give a market discount rate, market discount method is based on the transaction price of reference, the conditions of sale and other adverse factors; its formula is: asset appraisal value = reference transaction price * (1 - price discount rate). Cost market method, which is based on the current reasonable cost of the evaluation object, uses the ratio of the market price of the cost to estimate and evaluate. The main formula is: asset appraisal value = the current reasonable cost of the appraisal object * (reference cost price/reference current reasonable cost). P/e multiplier is a method to estimate the value of the object by multiplying the price-earnings ratio of the reference object as the multiplier (multiple), and the formula is: asset appraisal value = the earnings of appraisal object * price/earnings ratio of reference. In the market approach, these methods are not only applicable to the evaluation of single asset, but also to the adjustment coefficient of the difference between the to be evaluated and the reference^[3].

1.3 Cost approach

Cost approach is also known as replacement cost method. Its main method is to estimate the replacement cost of the assessed assets, and then evaluate the value of the assets under test of the general name of the assessment method. The main formula is: assessed value of assets = replacement cost of assets - substantive depreciation of assets - functional depreciation of assets - economic depreciation of assets, assessed value = replacement value * new rate^[4].

There are four basic aspects of the elements. One of them is the replacement cost of assets. The replacement cost is divided into recovery replacement cost and replacement replacement cost. Among them, the restoration replacement cost adopts the same materials as the evaluated object, and the renewal replacement cost refers to the cost of using the same manufacturing standard or technology as the original asset and constructing the new asset with the same function at the current price level. The second factor is the substantive depreciation of assets, and the formula for the substantive depreciation rate is the substantive depreciation of assets/the replacement cost of assets. The third is the functional depreciation of assets, which is mainly caused by the loss of value caused by backward equipment due to technical progress. The last aspect is the economic depreciation of assets. There are widely relevant data and information sources of the acquisition cost of assets. The replacement cost is related to the current market price and income of assets. Besides, there is a relation and substitution relationship. Therefore, the cost approach is also a widely used evaluation method^[5].

2. Selection and application of specific asset evaluation methods in mergers and acquisitions

With the continuous development and improvement of the market economy, mergers and acquisitions and reorganizations have become the most common means for enterprises to expand their capital. However, the value transfer of assets is often involved during the process of mergers and acquisitions and reorganizations of enterprises, which requires a lot of evaluation techniques to evaluate these assets. Different listed enterprises need different asset evaluation criteria in mergers and acquisitions and reorganizations^[6].

2.1 Enterprises that choose the income approach

According to the book "*Asset Valuation Criteria - Enterprise Values*", the income approach of enterprise valuation is defined as the method of capitalizing or discounting the expected income to determine the value of the appraisal object. The income method is to evaluate the value of assets according to the way of discounting or principal of the future returns of assets. In the process of evaluation, it is necessary to predict the future cash returns of assets and serve as the evaluation basis as well as the future earnings and risks of the owners of assets. Therefore, the income method is suitable for enterprises that have operating profit basis in production and operation activities, and have competitiveness in the future^[7].

The dividend discounts method and cash flow discount method are two common means of income approach. The method of dividend discount is suitable for the evaluation of partial equity value of shareholders lacking control right. The cash flow discount method also includes free cash flow discount model and equity free cash discount model, which should be decided according to the future business model of the enterprise^[5].

2.2 Enterprises that choose cost approach

The replacement cost method refers to the fact that enterprises cannot reflect the value of assets from the expected future earnings, and can only reflect the value of real assets by deducting various depreciations from the replacement cost of assets. There are three basic premises for an enterprise being evaluated through the replacement cost method. Firstly, the evaluated assets of the enterprise must be in state of continuing to use. Secondly, the evaluated enterprise has complete historical data, and the use of cost method is based on the information or history index obtained. Thirdly, it is necessary to form the value of the asset base for cost effective and invalid cost, and both consumer should reflect the average level of the industry or society.

To sum up, cost method are suitable for enterprises who are engaged in daily business activities with low or even negative profit margins and unsatisfactory development prospects. The commonly used cost estimation methods include replacement accounting method, price index method, and scale economy benefit index method. Its specific evaluation method needs to be decided according to the enterprise's current operating condition or the expected operating mode in the future^[8].

2.3 Marketing

The market approach refers to the asset appraisal method of direct comparison or analogy analysis by using the recent transaction prices of assets with the same nature on the market. Its basic premise requires an open, active market. There are many willing buyers in the market, which excludes occasional transactions and makes it more market-appropriate. Second, there should be comparable or comparable assets on the open market^[9].

In summary, the current market value method is more suitable for enterprises engaged in poor production and operation, and in a state of loss for a long time. The market prospects or competitiveness of such enterprises are not satisfactory. The specific evaluation methods are direct comparison method, analog adjustment method, functional value method and price index method.

There are many considerations involved in the selection of references to market law, because market law requires the ability to make full use of information about similar assets or transaction prices, and the ability to judge the value of

the assets to be evaluated on that basis. However, to a certain extent, due to the uncertainty of various factors, price evaluation can not be popularised.

3. Conclusion

To sum up, the specific evaluation methods selected in mergers and acquisitions and reorganizations are set according to the specific situation of the enterprise's own development. Only the appropriate evaluation methods can provide the guidance of the price and capital expansion plans involved in the process, and can promote the optimal utilization of enterprise assets as well as help enterprises develop towards a more favorable direction after mergers and reorganizations. Asset appraisal is of great significance of enterprise mergers and acquisitions and reorganizations, and will be affected by many factors in the appraisal process. Therefore, it is the most beneficial to combine the principle of asset appraisal with the objective reality^[10].

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