

Research on Recognition and Measurement of Defined Benefit Plans

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ABSTRACT. With the acceleration of aging population in China, the contradiction between supply and demand of endowment insurance has become increasingly prominent, so it is urgent to establish a sound social endowment insurance system. The proper use of defined benefit plan is an important measure. From two aspects of recognition and measurement, this paper analyses the problems and causes of defined benefit plan of enterprises and puts forward some tentative ideas. The results are of great guiding significance to the actual use of the defined benefit plan by enterprises.

KEYWORDS: Defined benefit plan, Recognition, Measurement

1. Introduction

The vigorous development of enterprises can't be separated from hard work of employees. One of the effective ways to make employee more loyal and reduce the proportion of employee turnover is to improve employee welfare. There are many kinds of employee benefits, among which the post-retirement welfare reflects the long-term security of enterprises to employees. In 2014, the new Payable Employee Compensation Accounting Standards introduced post-employment benefits, which are divided into two parts: defined contribution plan and defined benefit plan. At present, in the compensation management system of domestic enterprises, the defined contribution plan plays a leading role but the defined benefit plan is still in the initial stage [1]. As a symbol of the convergence of Chinese accounting standards and international accounting standards, the defined benefit plan has its particularity and importance. However, due to the complexity and specialization of accounting treatment, the defined benefit plan has not been understood and successfully implemented by accounting personnel in the case of imperfect domestic laws and regulations. Therefore, we need to fully understand the problems and causes of the defined benefit plan to find the appropriate solutions to promote the application of the plan in enterprises.

2. Related Concepts of Recognition and Measurement of the Defined Benefit Plan

2.1 Definition of the Defined Benefit Plan

The defined benefit plan refers to the enterprise's guarantee that employees can receive a certain amount of pension in each period after retirement, which is determined by a fixed formula based on the employee's salary level and service years. Under the defined benefit plan, the enterprise promises the future pension level of the employee in advance according to the specific formula, and calculates the amount of pension that the enterprise should pay for the employee in the current period through a series of financial and actuarial assumptions. At the same time, the enterprise pays the amount to an independent fund company for investment management. No matter whether the investment produces returns or not, the enterprise needs to pay a pre-determined pension amount after the employee retires or leaves. Because of the change of employee's life expectancy and investment income, the expenses that the enterprise needs to pay to the fund company in each period are uncertain. Therefore, the enterprise bears certain investment risk and actuarial risk [2].

2.2 Recognition Content of the Defined Benefit Plan

According to Chinese accounting standards, it can be divided into three parts: recognition basis, element recognition

and financial statement recognition. The basis of recognition is accrual basis. The employee compensation cost generated by the defined benefit plan in the element recognition shall be recognized as the service cost, the net interest of the net liabilities or assets of the defined benefit plan and the changes caused by the remeasurement of the net liabilities or assets of the defined benefit plan. The enterprise also needs to disclose the information related to the defined benefit plan in the financial statements.

2.3 Measurement Content of the Defined Benefit Plan

The measurement of the defined benefit plan mainly consists of actuarial assumptions and defined benefit plans' net liabilities or net assets. The actuarial assumption mainly refers to the use of actuarial methods to make a reasonable estimate of the variables involved in the defined benefit plan. An actuarial hypothesis mainly refers to the use of actuarial methods to make a reasonable estimate of the variables involved in the defined benefit plan. Actuarial assumptions include demographic and financial assumptions. The demographic hypothesis is mainly to evaluate death rate, turnover rate and disability rate of employees. The financial assumption is a reasonable prediction of the discount rate of the present value of the defined benefit plan obligations, the future salary of employees and other variables. Defined benefit plans' net liabilities or net assets mainly mean the difference between the present value of obligations and the fair value of assets shall be recognized as the net liabilities or net assets of the defined benefit plan. If there is surplus in the defined benefit plan, the enterprise needs to measure the net assets of the defined benefit plan according to the lower of the surplus of the defined benefit plan and the upper limit of assets.

3. Problems and Causes in Recognition and Measurement of the Defined Benefit Plan

3.1 Problems in Recognition and Measurement

3.1.1 Fuzzy Recognition Boundary of the Accounting Element

The net interest of the net liabilities or net assets of the defined benefit plan is included in the current profit and loss, but there is no clear stipulation on whether it is included in the income element or the expense element. The new employee compensation standard does not regulate the accounting treatment of the income generated by the assets of the defined benefit plan in detail. Thus, the asset income of the defined benefit plan can be included in "financial expenses" or "investment income". Financial expenses are generated by enterprises to raise funds for production and operation, which are highly related to production activities. The investment income refers to the income or loss of the enterprise's external investment, which has nothing to do with the production activities of the enterprise, and it is a kind of infrequent behavior. Although both accounting treatments do not change the net profit of an enterprise, they have a significant impact on the production cost and the profit statement for management.

3.1.2 Random Information Disclosure by Enterprises

As for what should be disclosed in the financial statements, the new employee compensation standard has made relevant provisions. However, some enterprises have not implemented in place. For the disclosure of actuarial assumptions, the standard does not make strict provisions, but only puts forward clear requirements for the selection of discount rate. The discount rate shall be the national debt matching the period and currency of the benefit plan set by the enterprise on the balance sheet date or the market yield of high quality corporate bonds in the active market, which gives the enterprise considerable freedom to a certain extent. When some enterprises explain the discount rate, they only disclose the size of the discount rate, but do not explain the reasons for the choice. The autonomy of choosing one of the two discount rates and the lax disclosure requirements increase the risk of corporate fraud. There may be situations where managers of listed companies choose a higher discount rate to underestimate the present value of the defined benefit plan obligation in order to whitewash statements and increase profits falsely [3].

3.2 Causes for Problems in Recognition and Measurement

3.2.1 The Newly Sprouted Thing

The main reason for the problems in recognition and measurement of the defined benefit plan is that it belongs to a relatively new concept in China. At present, only a small number of companies use defined benefit plans, so samples are not enough to support enterprises and accountants to learn from past successful experience, or to compare between enterprises. However, with continuous development and progress of social technologies, this paper believes that more and more companies will pay more attention to the defined benefit plan and employee welfare.

3.2.2 The Irregularity of the Standard

The provisions of the new employee compensation standard are not rigorous and perfect enough, which gives enterprises the autonomy in many aspects of implementing defined benefit plans [4]. Therefore, it is easy to lead to the emergence of favoritism and fraud. Due to the complexity of the accounting treatment of the defined benefit plan, if the regulations are not strict and accurate enough, enterprises are likely to blindly and randomly implement accounting treatments and disclose relevant content of the defined benefit plan, which not only reduce the reliability of accounting information, but also affect decision-making process of statement users.

4. Thoughts about Recognition and Measurement of the Defined Benefit Plan

4.1 Reference to Foreign Countries

4.1.1 Degree of Detail

Both American GAAP and international accounting standards make very detailed and strict regulations on recognition and measurement of defined benefit plans [5]. From definition of the defined benefit plan, accounting treatment steps, explanation of each key content to requirements of financial statement disclosure, GAAP and international accounting standards interpret one by one and provide cases for some calculation methods. International accounting standards also give examples to enable accountants to better grasp obscure terms. In contrast, China's accounting standards are a little thin. There are many contents without specific requirements and explanations, which is not only bad for accountants to understand accounting treatments of the defined benefit plan, but also leaves room for enterprises to operate at will.

4.1.2 Actuarial Gains and Losses

In the area of actuarial profits and losses, if all of them are included in other comprehensive income at one time, the account may fluctuate greatly, which is not conducive to the prudence of accounting information. US GAAP amortizes actuarial gains and losses according to specific methods. International accounting standards abolish corridor law. In the short term, it is uncertain which method is more suitable for enterprises in China. It remains to be studied whether different standards can be adopted for different types of enterprises, or whether actuarial gains and losses can be included in a new account. Generally speaking, the accounting treatment of actuarial gains and losses in our country needs more analysis and enterprise practice in order to get a method that is in line with our national conditions.

4.2 Improvements of the Defined Benefit Plan

4.2.1 Clear the Accounting Element Processing

By studying the meaning of two spatial subjects of financial expense and investment income, this paper proposes to use the income of planned assets to offset the financial expense. The reasons for this are as follows: firstly, since the defined benefit plan represents the long-term welfare of employees, the planned asset income can be regarded as a long-term interest income of the enterprise. Secondly, the defined benefit plan is a part of the employee's salary, which is related to the production and operation activities of the enterprise, and financial expenses are exactly the enterprise's financing for production and operation activities. Thirdly, according to the characteristics of enterprises, it is impossible to take planned assets as the content of external investments. The enterprise's external investments are to use idle funds of the enterprise to meet the enterprise's capital scheduling, expansion and transformation, while planned assets can only be used for employees' pension benefits. As a result, the return on planned assets is exactly matched with financial expenses.

4.2.2 Strengthen the Normalization and Preciseness of the Standard

The Ministry of finance should constantly standardize and enrich contents of the guidelines on the basis of drawing lessons from advanced points of defined benefit plans abroad and combining with the actual situation of the country. In order to prevent frauds of enterprises, the standards can stipulate accounting personnel to list bases that determine the period of obligation attribution of defined benefit plans in financial statements of enterprises. In addition, every important content of an actuarial hypothesis, such as discount rate, salary and medical cost, should be specified in detail to prevent the enterprise from dealing with it at will.

4.2.3 Reinforce the Implementation of the Standard by Enterprises

According to actual situations of enterprises, many do not strictly abide by the rules. Therefore, in the future practice, the enterprise shall fully disclose the characteristics and risks of the defined benefit plan, the amount recognized in the financial statements and its changes, the impact on the amount of future cash flow, time and uncertainty of the enterprise, significant actuarial assumptions and the results of relevant sensitivity analysis, rather than list only one or several of them. For actuarial assumptions, enterprises should disclose in detail in the financial statements, especially the discount rate, life expectancy and other major assumptions, and clarify the reasons for choosing the discount rate and the source of life expectancy, so as to make reasonable and reliable. In addition, the enterprise can list the defined benefit plan as long-term employee compensation payable. This method is not only different from other short-term compensation, but also more in line with the meaning of defined benefit plan. Thus accounting information is fully disclosed. In addition to strict compliance by enterprises, auditors also need to pay more attention to recognition of defined benefit plans in the statements, and carefully check whether disclosure of enterprises meets requirements of the standard.

4.2.4 Enhance the Comprehensive Quality of Actuaries

The defined benefit plan involves not only financial accounting knowledge, but also actuarial methods, so actuaries should constantly improve their professional quality. However, even if actuaries have relevant expertise, we can't guarantee that they will not distort the actuarial assumption of the defined benefit plan at the instigation of the enterprise. Therefore, actuaries also need to build correct values and enhance legal awareness to improve themselves in an all-round way.

5. Conclusions

Through the research on recognition and measurement of the defined benefit plan, it is found that there are some problems in actual applications of enterprises, such as unclear recognition boundary of the accounting element and random information disclosure. The main reasons are twists and turns of the development of new things and the irregularity of the criterion. In order to promote the further implementation of the plan, the Ministry of finance should constantly revise and improve the employee compensation payable standard, and strengthen its normalization and preciseness. At the same time, enterprises shall strictly abide by the provisions of the standard and disclose information related to the defined benefit plan as required. In addition, actuaries need to learn continuously, summarize experience in practice, pay attention to professional quality and perfect their personal cultivation.

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