ACCOUNTING PRINCIPLES UNDERLYING NET WORTH INCREASING THEORY

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I. *Fundamental Problems of Net Worth Increasing Theory*

As is well-known, there are two methods of the income determination in accounting, i. e. that of comparing the amount of capital at two points, more specifically, at the beginning and the end of a period, which is often called by net worth increasing theory, and that of matching cost with revenue. Of these two methods of income determination, we shall be concerned in this paper with some problems concerning the net worth increasing theory.

As, above-mentioned, the net worth increasing theory is characterized as a method of income determination, which regards the amount of increase or decrease in the net worth as net income or loss. It is not too much to say that correct determination of net worth, which is the difference between assets and liabilities, means the correct determination of periodic income. Therefore, in the practical application of this method, it is prerequisite to know the exact amount of assets and liabilities. As the amount is represented and summarized in the balance sheet, under the net worth increasing theory, in preparing the balance sheet at the end of a period it is one of the most important problems to determine the net worth.

As is well-known, the theory of balance sheet (*Bilanzlehre*) as developed in Germany from the middle of the last century was mostly concerned with what should and should not be represented in the balance sheet (*Bilanzfähigkeit*), how to evaluate the assets in the preparation of the balance sheet (*Bilanzbewertung*), how to classify the assets for the preparation of the balance sheet (*Bilanzgliederung*) and how to arrange them in the balance sheet and others, of which importance was attached to the ability and valuation of assets. The way to solve these two problems affects to the essence of the balance sheet. Of them, the valuation of assets is a more important and difficult problem in the theory of balance sheet. In fact, it is not exaggerating to state that the study of the balance sheet has hitherto been centering around this problem, and the standard and the upper limit of it have not been concerned with the valuation in general, but with only the specified purpose.

II. *The Principle of Truthfulness*

There are some principles for the preparation of balance sheet, such as the principle of clarity or disclosure (Grundsatz der Bilanzklarheit), consistency (Grundsatz der Bilanzkontinuität) and singleness (Grundsatz der Bilanzeinheit), but it has been customary to regard the principle of truthfulness (Grundsatz der Bilanzwahrheit) as the leading one of all of them.

It is often argued that the principle of truthfulness is concerned with describing the financial position truly in the balance sheet. Such an argument is however nothing but a tautology and essential is not explained by it at all. As we shall be concerned with the more detailed analysis of this principle later in this paper, brief mention will be made here of the scope and limits of the validity of this principle. According to the net worth increasing theory, the function of the balance sheet is only the determination of the net worth as of the end of a period. Generally, there are two meanings for the deternimation of the net worth. One involves the exactness of the respective amount of assets and liabilities which are necessary for the determination of net worth, while the other is concerned only with the amount as expressed as the difference of these two in utter disregard of two amounts and the methed of asset valuation will vary in accordance with the one which will be adopted. It is however held generally that the principle of truthfulness of the balance sheet pertains to the first one of the above-mentioned two meanings. According to the principle, the exact amount of the net worth is automatically derived from the respective amount of assets and liabilities, if they are exactly determined. We have to know that here lies the limit of the validity of this principle.

Next we must clarify the principle of truthfulness with such a meaning. This principle requires a representation of all the assets possessed by an enterprise and all the liabilities owed by it in the balance sheet. It is only the minimum requirement for the balance sheet, because some of the assets and liabilities represented in the balance sheet may not exsist actually. It is therefore required that all the items described in the balance sheet should really exsist. Thus, the principle of truthfulness constitutes the standard of what should and should not be represented in the balance sheet. The principle of truthfulness also affects the valuation of assets. According to it, each asset should be evaluated by the objective value as of the balance sheet date. As is well-known, the valuation of assets directly affects the amount of the periodic income as well as net worth. This is the reason whe the principle of truthfulness is the most important among many fundamental principles affecting the valuation.

As above mentioned, the principle of truthfulness damands the real existence and the inclusiveness of the assets possessed and liabilities owed by the enterprise and the valuation by the market price. Such requirements are however not sufficient enough to completely settle all the problems of what should and should not be represented and how to evaluate assets. In fact, there are some problems, which the principle fails to cover. For instance, whether or not the requirement for the real existence or inclusiveness should be made either of assets or liabilities or both, can not be solved by that principle. Moreover, as there are two kinds of market price i. e. realizable value and replacement cost, it is not clear which price should be used under the principle of truthfulenss.

III. *The Accounting Significance of Capital Equation*

As these problems cannot be settled by the principle of truthfulness, some other principle of solution should be looked for. What is it? As the net worth is usally determined by the so-called capital equation, it is natural to try find the clue to the solution of this problem in this equation.

As is well-known, the capital equation is a numeral equation, which has the form — assets — liabilities = net worth. The validity of this equation is generally assumed as a matter of course, but the scrutiny of this equation reveals to us many things which we cannot take for granted. In the first place, it should be pointed out that the assets consist of various goods, rights and others, while the liabilities are quite different from the assets in their characteristics and moreover have many inhomogeneous constituents.

To add or to subtract is, in general, possible only when the terms involved are of homogeneous. It is thus difficult to attach any meaning to add assets of both or to subtract liabilities from assets, because they are of character different from each other. Moreover, it seems to be illogical to subtract from the assets the liabilities, which are qualitatively different from the former.

Then, what should be the logical foundations of such a determination of net worth or capital equation, if it is valid at all? To subtract liabilities from assets is not a mere calculation procedure, but in its subtraction some economic activities is implied. This is also clear from the fact that the figuers or amounts in accounting are always provided with some economic significance. The subtraction of the liabilities from the assets means the payment of all the liabilities owed by the enterprise, from the assets possessed by the enterprise. In other words, the said subtraction or capital equation reflects the payment of the liabilities from the assets. The capital equation therefore essentially indicates the calculation to determine the amount of assets, which remains after the payment of all liabilities from them. If we remember that the object of such a calculation to be carried out at the end of the fiscal year is to make clear the financial position of the enterprise after the payment of all the liabilities with the assets at its disposal, it may be said that the calculation presupposes the final liquidation and winding-up of the enterprise. Therefore, the validity as mentioned in the principle of truthfulness, should be taken in the above-mentioned narrower sense even if the balance sheet is to be qualified by the said principle. Accordingly the requirements for real existence as well as for inclusiveness of assets and liabilities and valuation by the market price should be understood in connection with the idea as presupposed by the capital equation as well as with the validity in the meaning characterized by such an idea.

IV. *The Standard of Realizable Value*

As was mentioned above, the principle of truthfulness requires to evaluate by the market price. Beside the market price, there is the original cost which is the price, at which the assets were obtained. As the original cost does not represent the value of the assets as of the balance sheet date, it cannot be incorporated into the capital equation, which premises the immediate liquidation and winding-up of the enterprise. The original cost is therefore utterly of no meaning for the preparation of a balance sheet for the calculation of remaining assets after payment of all the liabilities.

There are two kinds of the market price, i. e. the realizable value and replacement cost but it is clear that the replacement cost should not be used in the calculation of the capital equation, because the liquidation and winding-up of the enterprise is presupposed in its equation, while the establishment or the commencement of the enterprise is assumed by the replacement cost. Accordingly, it follows therefrom that the capital equation as well as valuation of assets in the determination of net worth should be based upon the realizable value. Of the realizable value, there are again two categories. One is the realizable value in the ordinary course of the business operation, while the other is in the course of compulsory realization. As the capital equation presupposes the immediate liquidation and winding-up of the enterprise, the latter of these two standards should be adopted. Even if the assets are classified in the balance sheet into current assets and fixed assets under this equation, there is no reason to change the proposed standard of valuation, because everything is simultaneously evaluated at its realizable value in the course of compulsory realization. In fact, the division of the assets into current and fixed has its significance only when the continuance of the enterprise is presupposed.

Under such a condition as above-mentioned, where the assets are evaluated at their realizable value in the course of compulsory realization, the calculation of net worth seems to be carried out without any contradiction by means of the capital equation. Only through such a procedure, we are allowed to subtract from the assets the liabilities, which are hetrogeneous to each other. In fact, the amount of assets obtained by such a calculation indicate their cash value, while the amount of liabilities corresponds to the cash to be paid. The difference of these two amounts therefore indicate the amount of cash, which will remain at the disposal of the enterprise after the payment of liabilities. The determination of net worth by means of the capital equation appears to be the summation and subtraction of the assets with different forms, but in reality it is a calculation unified by the cash value. Here cash is presupposed in the calculation as the representation of the respective assets. Each asset is therefore considered not as goods or rights, but as the money for paying liabilities or debt-paying-medium.

In the so-called original cost theory of the asset valuation, the assets other than cash are also considered to be money itself. There is thus no difference between the original cost theory and the realizable value standard, so far as they regard the assets as transmutation of money. It should however be remarked that the former is concerned with the money spent to obtain the assets, while the latter with that to be obtained by selling it. In other words, the former, represents the assets as money obtained in the past, while the latter as money available at present. It goes without saying that there is no necessary relation between the amount of investment and the ability for payment of liabilities. The assets obtained at a high cost are not necessarily sold at high prices. In the determination of net worth, the original cost theory should not be taken in a literary sense as the requirements for valuation of assets at their original costs, although the theory represents any asset by the equivalent amount of money. The important thing here is not the amount of money, which was paid to obtain the assets, but the amount of money, whilch can be obtained through the sale of the assets.

V. *The Real Existence of Assets and the Inclusiveness of Liabilities*

The greatest concern on the part of the creditor is the amount of the net worth, which is determined by the capital equation based upon the principle of truthfulness. Such a concern has been strengthened by the appearance of corporations, because only the assets belonging to a corporation are mortgageable to the creditor. To know the debtor's financial position or to know the amount of liabilities the debtor is able to pay, can he determined through the balance sheet submitted by the debtor, because it represents all the assets and liabilities. In such a case, the balance sheet is apt to be prepared most favourably to the debtors. In fact, the larger the net worth, the better the financial position of the enterprise making it seemingly more reliable to the creditor. The debtor is therefore interested in making the assets larger and the liabilities smaller in the balance sheet. Therefore, the requirements for real existence and inclusiveness are discriminately made of assets and liablities by the principle of truthfulness.

It is not necessary that the requirements for real existence be made of the liabilities, because it is almost improbable that the debtor, who is only interested in the apparent increase in the net worth at his disposal would represent any liabilities that do not real exist. The inclusiveness is, therefore, strongly required of liabilities. Indeed, all the liabilities, which whether they are recorded in the ledger or not, should be represented in the balance sheet.

While in the case of assets, it is improbable that they would not be represented in the balance sheet. Inclusiveness need not therefore require of assets. On the contrary, there is the possibility of representing more assets than those that really exist with a view of making net worth appear more than it is actually.

In the case of assets real existence must be strongly required. We are therefore confronted with a situation quite opposite to the case of liabilities. It should be noticed that the required reality of existence does not necessarily imply the concreteness or tangibility of the assets but they are of use in paying the liabilities. Therefore, those without any realizable value should be excluded from the assets, whether or not they are recorded in the ledger. In other words, the real existence is confined by the convertibility to money. From such a point of view, it is clear that most of the prepaid expenses and deferred charges to cost should not be represented as assets in the balance sheet, because they are not only without any cash value, but also presuppose the continuation of the enterprise, which is clearly against the assumption of the capital equation, immediate liquidation and winding-up of the enterprise.

It is however difficult or impossible to exactly measure their availability for paying debt. The conservative measurement of it is therefore required of their valuation. With respect to assets, under-valuation is considered to be better than the over-valuation while with respect to liabilities, not the present value, but the designated one is taken into consideration, although the immediate payment is in anticipation. All this is because the balance sheet prepared by such principles is favorably considered by creditors as "not worse but better" statement well meeting the requirements on their part for maximum liabilities and minimum assets. This is called by the principle of conservatism. Also with this respect, the principle of truthfulness is under a restriction.

VI. *The Provisions Concerning the Valuation in the German Commercial Law*

The above-mentined principle of determination of net worth is that to be referred to in the preparation of the balance sheet and is based upon the viewpoint of measuring the debt-paying-ability, against the present accounting procedures. The point of view as implied in this principle is however found in the typical theory, which was advocated by many lawyers, when the German Common Commercial Law put in to effect in the middle of the nineteenth century. According to them the balance sheet should represent the objective financial position as of the balance sheet date and the stipulation concerning the valuation in the commercial law are to be interpreted referring to the realizable value at the balance sheet date. This was the first theory ever formulated concerning valuation of assets in Germany and is usually called the objective value theory (*Objektive Wert Theorie*). One of the authorized theories referred to most often in this connection is the decision, which was given on 3rd December, 1873 at the German Commercial Supreme Court. According to it, "The present value (*gegenwärtiger Wert*) to be decided upon as appropriate in the balance sheet should by no means be the estimate based upon arbitrary and subjective measurements or upon a mere speculation. On the contrary, it should be understood as a general exchange value (*der allgemeine Verkehrswert*). In fact, there should be an objective correspondence between the balance sheet and the objective reality of the financial position. Thus, the constituent parts (positive and negative) of the property should in principle be valued by their respective market or bargain price, while the remaining constituent parts should be valued objectively by other appropriate methods."[1]

The realizable value approved by the majority of lawyers as the standard of valuation, when the theory of balance sheet was first formulated in Germany. In this theory, the proposed standard constitutes the central part of the principle, which governs the preparation of the balance sheet together with the principle of truthfulness and the capital equation. The balance sheet theory which was strongly renounced by Schmalenbach as "static", is nothing but the one as embodied in such a valuation standard and the principles at its background

VII. *The Application of the Principle of Capital Calculation to the Determination of Income*

As has often been mentioned in the foregoing, the principle of the preparation of balance sheet as based upon the capital equation is the one concerning the capital determination, which is required for the measurement of the debt-paying-ability from the creditor's standpoint. The principle was in turn applied to the determination of income in the net worth increasing theory, where it was considered that the correct determination of the net worth by the capital equation resulted in the correct measurement of periodic income. It seems to us however that no mention has explicitly been made by those lawyers who advocate the objective value theory. As far as it constitutes a basis for the standard of valuation in the balance sheet at the end of fisical year, the determination of income by the balance sheet is nevertheless bound by the capital calculation and we have to understand that this is tacitly assumed, whether they are conscious of it or not. Of course, an application of the principle of the capital calculation to that of income seems to be rather imprudent, because it seems to us that these two calculations are quite different. We therefore wonder if the advocates of the objective value theory were only concerned with the valuation of assets without considering the income determinative function of the balance sheet. There are nevertheless some grounds for the proposed application of the principle of the capital determination to that of income. Although we have to expect various difficulties in the practical application, these are closely connected, as is clear from the following.

By the procedure to determine the net worth by subtracting from the assets both the liabilities and contributed capital, we know how many assets are still remaining as net income, if the liabilities are paid to the creditors and capital contributed are returned to stockholders. In other words, if there remain such net income, we can secure the amount of assets sufficient for the payment

[1] Passow, R., *Die Bilanzen der privaten und öffentlichen Unternehmungen, Bd.* 1. 3. *Auf.* Leipzig 1920, S. 88, ammn. 3.

of all the liabilities and contributed capital and can thus secure the interest of creditors and stockholders. Indeed, capital and income are completely separated from each other. The determination of the net worth by means of the balance sheet is therefore to determine the income.

Such a view was however prevalent at the earlier periods in the history of accounting. In fact, in England a large number of suits were brought to the court from 1860' to 1870' concerning the profit sharing of corporation and the view in question was explicitly advocated by many decisions concerning the income determination. For instance, the following statement was made in the decision given to the Binney v. Ince Hall Coal and Cannell Co. case in 1866 concerning the method ot the income determination in direct reference to the clause in the by-law of the corporation, which were made two years before. "The first step would be to make good the capital by taking stock and putting a value upon all the assets of the company of whatever nature and of deducting therefrom all the liabilities (including amongst those liabilities the amount of contributed capital), and the surplus, if any, remaining of the gross receipts would be net profit."[2] On the other hand, in the decision of the Halby case, it was contended that directors' reports were not a substitute for balance sheet stating, "The object (of the clause in the by-law) was that the directors should produce a balance-sheet in order to show the assets of the company and their value and on the other hand the liabilities of the company; because it is only on that sort of statement that you can draw any rational conclusion as to whether there is a profit".[3] After citing these decisions, Prof. Littleton outlines the decisions concerned with the method of income determination in the middle of the nineteenth century stating, "These views, expressed about the middle of the nineteenth century, touch upon an interesting accounting matter. The first thing which attracts attention is the use of the balance-sheet to calculate the "net revenue" or "net profit". This indicates a conception of profit which is associated with the final liquidation and winding-up of a company: the profit consisting of whatever property was left after using the assets to discharge the liabilities and reimburse the stockholders for thier capital contributions".[4]

Though the accounting principle underlying capital equation is not reasonable from the present accounting theory, it was applied to the practice of the income determination in Germany and in England, in the latter half of the nineteenth century. If we remember that the principle is concerned with the protection of cerditors, it is very natural that its support extended by lawyers and courts.

Thus, it is not too much to say that the capital equation has an essential influence upon the accounting theory.

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[2] Littleton, A. C., *Accounting Evolution to* 1900, Neu York 1933, p. 216.
[3] Littleton, A. C., *op. cit.*, p. 216.
[4] Littleton, A. C., *op. cit.*, p. 216.