SIGNIFICANCE OF REALIZATION PRINCIPLE IN ACCOUNTING

——Displacement of the "increase in net worth" test by the "realization" test of income——

By Toshio Iino

Assis. Professor of Accounting

I. *Foreword*

Concerning the realization principle[1] it is often said as follows: "Though accrual basis has been accepted as a general principle an important limitation is attached to it, namely, the realization principle. It is often said that revenue is realized only when the goods were sold and the increase in the market price before the sale offers only the opportunity to obtain revenue but never can it be the revenue itself. It is quite obvious that realization principle is based on the conservatism in accounting."[2] The foregoing way of thinking can be more distinctly seen in the description that "realization principle serves as a brake to the accrual basis."[3] This way of thinking, as applied to the valuation of assets leads the following conclusion that though the assets as the close of the present period have to be valued at market price in principle they are exceptionally carried farward to the next period at cost in order to avoid the inclusion of unrealized profit from the viewpoint of conservatism. In other words, the valuation at cost is not a principle but an exception and the valuation at market price is a principle. At this point it is noteworthy what they say concerning the valuation of assets as follows "Every asset is carried forward to the next period with the expectation of receiving cash or cash-equivalent in future. Extremely speaking, it is nothing but the cost allocated to the future."[4] As far as such view is persisted on the nature of assets, it goes without saying that they have to be valued at cost. In view of the increasing emphasis being attached on the cost allocation rather than on the valuation of assets in the past as the result of recent emphasis on the determination of income in accounting there seems to be left no room to argue against the view that the amount to be deffered to the next period should be determined at cost. It is

[1] Realization principle is here used in the same meaning with sales basis and not in the meaning of the Underlying Concepts of "Accounting and Reporting Standards for Corporate Financial Statements, 1957 Revision"by the American Accounting Association.

[2] Tetsuzo Ohta, *Accounting*, Revised Edition, (in Japanese) 1951, Tokyo, p. 146.

[3] Koichi Sato, *Contemporary Accounting*, (in Japanese) 1952, Tokyo, p. 643.

[4] Tetsuzo Ohta, *op. cit.*, p. 15.

noteworthy that such a contradicting view, as mentiond before, is widely accepted in Japan as a theoretical basis of realization principle.

II. *Cash Basis and Cash Basis Accounting*

Realization principle is, as mentioned before, generally understood as an exceptional application to the accrual basis. If so, it is necessary for analizing this problem to have the significance of the accrual basis made clear. The accrual basis here in question is commonly viewed as a basis which has developed from cash basis. Therefore, we shall give some consideration to the cash basis at first.

The term "cash basis" has been used in many ways. For instance, Prof. Kester states as follows, "Under a strictly cash basis no entries are made on the books except at the time of receipt or disbursement of cash. In such cases, therefore, the books do not usually reflect the complete status of the business unit at a given time. Since the balance sheet purports to give a complete status, it thus becomes necessary to "adjust" the books to include thus unrecorded data before a proper balance sheet may be drafted therefrom."[5] From the above mention, it seems for us that he were conceiving the cash basis as a principle for recording the books, so to speak, the basis of recording ledgers at the time cash is received or paid.

However, it is more commonly used as a recognition principle of revenue and expense. In this view it is considered to be a principle "to recognize the fact of the accrual of expense at the point when cash was paid and the fact of accrual of revenue at the time when cash was received"[6] and therefore here it is understood that "no item of revenue is recognized until cash is received; no expense is thought to be incurred until cash has been disbursed."[7] According to this basis, "there is no recognition of a bad loss, since there is no recognition of revenue until cach is received; there is no recognition of depreciation, since the entire cost of the plant or equipment item is recognized as expense at the time of its purchase and payment."[8]

Frequently it has been said that cash basis is applicable to the determination of total profit (*Totalgewinn*). For instance, in the case of merchant adventurers of the Mediaevel Ages or single venture, "During the voyage he (the employed manager) stops at a number of ports, sells merchandise, buys other merchandise, and finally at the termination of voyage her returns home, all the merchandise having been sold for cash. He then sells the ship and deducts from the cash then

---

[5] Roy B. Kester, *Advanced Accounting*, 4th ed., 1946, New York, p. 10.
[6] Yasuichi Sakamoto, *Financial Statements*, (in Japanese) 1955, Tokyo, p. 88.
[7] C. Aubrey Smith and Jim G. Ashburne, *Financial and Administrative Accounting*, 1955, New York, p. 5.
[8] Wilbert E. Karrenbrock and Harry Simons, *Intermediate Accounting—Comprehensive Volume*, 1953, Cincinnati, p. 99.

on hand his own salary or share of the proceeds and returns the remainder to the owner."[9] The capitalist therefore can determine the net income from the voyage or total profit by comparing the amount received after the voyage with what they invested before the voyage, in other words, from the difference between receipt and disbursement on the voyage. In this case, the calculation of receipt and disbursement of the capitalist coincides with that of income on the voyage, thus making the basis in the meaning indicated in the preceding paragraph applicable in its real form.

However, such reasoning can be justified only from the standpoint of capitalist but not from the standpoint of successive venture or the individual voyage as an accounting entity independent of the capitalist. In the case of single venture, the difference between receipt and disbursement is the income deriving from the voyage, but all what was received or disbursed is not revenue or expense respectively. For in this case from the standpoint of voyage it is impossible to determine the total profit without recognizing the investment by capitalist as receipt and the returned invested capital as expenditure and putting them into the calculation of receipt and expenditure, since the determination of total profit is nothing but the determination of profit which is associated with the final liquidation and winding-up and therefore it is regarded as profit property which "was left after using assets to discharge the liabilities and reimburse the shareholders for their capital contributions."[10] Generally speaking, from the standpoint of enterprise and not of capitalist, it can be said that every revenue is received and every expense is disbursed untill the final dissolution of enterprise. In spite of this, however, it is quite evident that the amount of receipt does not coincide with that of revenue and that there arises a difference between disbursement and expense, since there exist such forms of receipt and expenditure as capital investment and its refund which are irrelevant to revenue and expense and, so to speak, neutral to the determination of income. It is clear under such situations that "every receipt and disbursement do not necessarily mean revenue and expense respectively"[11] in spite of the assertion that "the cash basis as a recognition principle of revenue and expense finds itself in its real form"[12] and that "the calculation of receipt and disbursement does not coincidence with that of income."[13] In such illustrations, it can clearly be noted the confusion of two different things, that is to say, the cash basis as a recognition principle of revenue and expense and the mechanism of the periodic income determination like cash basis income determinetion or cash basis accounting which implies to determine income through the calculation of receipt and disbursement.

---

[9] Stephen Gilman, *Accounting Concepts of Profit*, 1939, New York, p. 66.
[10] A. C. Littleton, *Accounting Evolution to 1900*, 1933, New York, p. 216.
[11] Katsuji Yamashita, *General Theory of Accounting*, (in Japanese) 1955, Tokyo, p. 98.
[12] Katsuji Yamashita, *op. cit.*, p. 99.
[13] Katsuji Yamashita, *op. cit.*, p. 98.

III. *Evolution of Accrual Basis*

With the transition of the object of accounting from a "single venture" to a "going concern" and the closing up of the determination of periodic income in place of total profit due to the dividing whole life of an enterprise into artificial accounting periods, the cash basis as a recognition principle of revenue and expense has gradually proved itself to be irrational and the limitation of its application has become to be recognized, for the cash receipt or disbursement are fundamentally irrelevant to revenue or expenses. It is often said that under such circumstances, accrual basis has made appearance as a principle to replace the cash basis. Prof. Yamashita, for instance, says as follows: "Revenue and expense in a going concern does not necessarily bring about the cash receipt and disbursement simultaneously and therefore the cash receipt and disbursement of an accounting period can not be the principle to measure the periodic revenue and expense. The difference existing between revenue and expense of an accounting period and the cash receipt and disbursement is the same period can be said to be steadily growing in accordance with the increase of fixed assets and the development of credit system."[14] "Here lies the reason why the accrual principle (in the same meaning with the term usually called accrual basis—note by illustrator) has been paid attention as one to solve irrationality of cash basis as a recognition principle of periodic income."[15] Putting aside whether or not "the increase of fixed assets", as Prof. Yamashita says, has affected the shift from cash basis to accrual basis for the time being, the question here is whether the "development of credit system" would have such a significant on influences the appearance of accrual basis or not. To have it justified, it must be proved that until the appearance of accrual basis neither had there been the book entry in the case of credit purchasing or selling nor was the account receivable included in the determination of income. Is it true?

According to the investigation of historicians on bookkeeping and accounting, personal accounts can be found in the books since the relatively early stage in the development of bookkeeping. It is well known that the credit and debt or personal accout was the object of recording in the cross entry as a germinating form of double-entry bookkeeping. With the expansion of the objects of recording to the property or impersonal accounts, a proft and loss account and capital account it has been developed to the so called Italian bookkeeping as a primitive form of double-entry bookkeeping system. Explaining such circumstances that the relationship of credit and debt or personal account had been the object of recording since the relatively early days, Prof. Schmalenbach says, "The persons who

[14] Katsuji Yamashita, *op. cit.*, p. 100.
[15] Katsuji Yamashita, *op. cit.*, p. 101.

do not keep records when they lend money or sell merchandise on credit and when the accounts receivable are collected or mlrchandise is returned must realize that they might dismiss unnoticed that it is not yet paid to them even in a small business dealing with no more than a few dozen kinds of items. Sometimes they might forget to urge the credit customers to pay the money at suitable time or sometimes they might injure the feeling of costmers and give the impression that they are loose in business by asking the customers to pay the money in spite of the fact that the payment was already made. Furthermore, those persons who do not keep records about their liability might have to run the risk of paying twice on the same liability or being unduly demanded payment. They might also be unable to have the good command of money."[16] Under these circumstances, the recording might be regarded as a memorandum.[17] With the completion of double-entry bookkeeping system it is needless to say that the recording of credit and debt being accompanied therewith by the recording of buying and selling of merchandise and cash receipt and disbursement became as an aid to the measurement of financial position or an accomplishment of an enterprise. Pacilo asserts that when there is a sale of merchandise or other goods the transaction should be recorded as a receivable if it were not the receipt of cash, proposing that "when the sale was made partially on a cash basis and partially on a credit basis merchandise should be made as creditor and the customer should be made as debtor. Afterwards it is necessary to make one more entry, that is to say, to make the customer as creditor by the amount cash was received and make cash or bank which received cash for the seller as debter."[18] In his work the problem of financial statements can not be seen at all. This is because "proprietors were in personal contact with their affairs and the occasional computation of a profit-and-loss account in the ledger was ample for their needs."[19] However, afterwards with the periodical settlement of account in order to prepare financial statements having been given attention gradually, the accounts receivable at the end of an accounting period was put on the balance sheet together with other assets, liabilities and capital and thereon the net income was determined. For example, in the balance sheet illustrated by Savary in his "Le Parfait Negociant", already account receivable is represented together with merchandise and cash and the net income is determine therein. Accordingly in this case, it should be understood that revenue from the sale is recognized in reference to the creation of the account receivable and therefore the establishment of a credit. This basis is often called so "credit basis" or "obligation principle."

It might now be clear that the development of credit system was irrelevant

[16] E. Schmalenbach, *Dynamishe Bilanz*, 5 Aufl. 1931, Leipzig, S. 56.

[17] Concerning the meaning of the record of credit and debt in the process of development of double-entry bookkeeping system, refer A. C. Littleton, *op. cit.*, pp. 28 ff.

[18] Paciols, after describing the booking procedure in purchasing merchandise and other properties in detail, is quoted as saying in his work, "when they were sold the procedure should be contrary to the above example." The booking procedure of sale as applied in the foregoing example of purchase is understood to be as is described here.

[19] A. C. Littleton, *op. cit.*, pp. 84–85.

to the displacement of cash basis by accrual basis as far as the recognition of revenue is concerned. As above mentioned, it is clear that when goods are sold on credit, not receive any cash, merchant records the credit on the book, with the purpose of the management of property at first, thus making it difficult for us to prove that there was no book-entry until the cash was received. It will be concluded that in the credit transactions credit basis has long been applied and there has been no room for the application of cash basis at all.

The item in which cash basis was irrational and inapplicable is so called "suspense account," for in such an item we can find the periodical inconformity between expense and disbursement and between revenue and receipt most concretely and distinctly. Referring to this problem Savary approaches "the matter when he recommends that the person preparing to close the books make up, among other things, a list of what he owes to assistants for wages and again when he advises that expense accounts should confine themselves to the following year if the profit is not found sufficient to cover them."[20] According to Prof. Littelton, Pilsen in his work of 1877 lists such items as rent to be paid, prepaid rent, charges on gas used but not yet, fuel, stamps, stationaries not yet exhausted in the columnar balance sheet as inventories in red ink[21] and A. G. Cairnes in his work of 1891 records such items as salaries, rent, tax, interest yet to be paid by the enterprise either on the debit of income or on the credit of debt and to the same time similar items yet to be received by the enterprise either on the debit of asset or on the credit of income in the columnar balance sheet, insisting that such recording results in "nearer true gains."[22] Also according to the investigation by Prof. Littleton it is only ten per cent out of 50 text books on bookkeeping published between 1788 and 1899 that takes up the accruals.[23] With the thinking of accrual and deferment, though gradually, being introduced into the accounting the so called accrual basis has gradually proved itself to be the principle to recognize revenue and expense in such cases when services are offered or received continually over a certain period of time, pushing away the cash basis into the background.

Needless to say, as pointed out by many authors,[24] the increase of fixed assets marked a turning point in the shift from cash basis to accrual basis through the necessity of depreciation. Here it would not be necessary to make further comment about this point.

As having been analysed hereto suspense items, namely, accrued and deferred items, and the necessity of depreciation have brought about the collapse of cash basis as a recognition principle of revenue and expense and the evolution

---

[20] A. C. Littleton, *op. cit.*, p. 150.
[21] A. C. Littleton, *op. cit.*, pp. 150–151.
[22] A. C. Littleton, *op. cit.*, p. 151.
[23] A. C. Littleton, *op. cit.*, p. 150, footnote.
[24] With regard to the development of depreciation, see A. C. Littleton, *op. cit.*, chapter XIV Depreciation, pp. 223ff. George O. May, *Financial Accounting*, 1943, New York, chapter VII Depreciation, pp. 118ff.

of accrual basis as a principle to replace cash basis. Then, when and how the realization principle was brought forward?

IV. *Evolution of Realization Principle in America*

According to the report by the Study Group on Business Income, the American Institute of Accountants, "The postulate of realization is of quite modern origin. In America at least its acceptance could not be related back to any date prior to the First World War."[25] According to their study the realization principle was not approved not only in accounting but also in law and economics before the World War I. This is because they consider profit as an increase of net worth.[26] For instance in the Spanish Prospecting Co. case (1911), Lord Justice Fletcher Moulton said: " "Profits" implies a comparison between the state of a business at two dates usually separated by an interval of a year. The fundamental meaning is the amount of gain made by the business druing a year. This can only be ascertained by a comparison of the assets of the business as the two dates."[27] Prof. Dickinson insists on the "increase in net worth" concept of income in his work which is admitted to be one of the most authoritative books of accounting in Europe and America through the beginning of this century, asserting that in as much, however, as the ultimate realization of the original invest is deferred for a long period, during which partial realization is continually taking place, it becomes necessary to fall back on estimates of value at certain definite periods, and to consider as profit or loss the estimated increase or decrease between at any two such period."[28] Furthermore, Prof. Montgomery suggests that the net income should be measured by comparing the balance sheets or the net worth of two different dates.[29]

The "increase in net worth" theory in the determination of net income is, as is well known, a method to determine the net income by the comparison of net worth of the two dates. Therefore, the net income is regarded as the difference of net worth, the difference between assets and lialibities. The increase or decrease of net worth other than paying in or deducting from the capital is recognized as revenue or expense. The "increase in net worth" theory may be classified into two patterns, namely, one insisting on the asset valuation at market price, the other at cost, of which the former view was influential in American at that time. Prof. Dickinson, for instance, insisting on the valuation at market price refers to this problem, "It would be unfair, especially in a young

---

[25] Study Group on Business Income, the American Institute of Accountants, *Changing Concepts of Business Income*, 1952, New York, p. 19.
[26] Study Group, *op. cit.*, p. 23.
[27] Study Group, *op. cit.*, p. 24.
[28] Arthur Lowes Dickinson, *Accounting, Practice and Procedure*, 1914, p. 67.
[29] Robert H. Montogomery, *Auditing, Theory and Practice*, revised and enlarged edition, George O. May, *op. cit.*, p. 81.

and growing country to exclude appreciation of capital assets from the accounts."[29] It is also widely known that Profs. Paton and Stevenson in 1918 insisted on the valuation of assets at market price in their mutual work "Principle of Accounting." The proposition of the market price basis must have come from many reasons. However, as Mr. May points out, the fact that there had been a steady rise in wholesale price index since 1896 and when Prof. Dickinson finished writing up his work the index was roughly 50 per cent greater than in 1896 and that it was really 298 higher in 1918 when Profs. Paton and Stevenson wrote up their work must have provided one of the most important reasons for it.[30]

As far as the "increase in net worth" theory based on the market price valuation of assets was a governing view in the income determination as was seen hereto it is quite natural that the realization principle which is associated with the cost valuation of assets as a matter of consequence was not accepted generally at that time. However, after the World War I the price level had become increasingly higher and in 1922 when the price was the lowest throughout the seven years succeeding the War the index showed 140 per cent greater than the prewar level and in 1920 when the price was the highest it was indeed 220 per cent higher than the prewar average. In view of such a tendency of price, enterprises apparently rushed to make the revaluation of assets, especially fixed assets, and paid dividends from the revaluation surplus arising therefrom. Here now appeared the criticism on the valuation of market price. It will be the reason why the Special Committee on Cooperation with Stock Exchanges of the American Instutite of Accountants in the first paragraph of Exhibit 1 of the first report to the Committee on Stock List of the New York Stock Exchange dated September 22,1932, in expressing against the introduction of unrealized profit, suggested as follows.

"I. Unrealized profit should not be credited to income account of the corporation either directly or indirectly, through the medium of charging against such unrealized profits amounts which would ordinarily fall to be charged against income account. Profit is deemed to be realized when a sale in the ordinary course of business is effected unless the circumstances are such that the collection of the sale price is not reasonably assured."[31]

It is indeed noteworthy that the idea of realization principle was seriously and even at the top of the suggestions taken up by the American Institute of Accountants itself independently of the views of individual scholars.

Some years before this, the Revenue Act of U.S.A. embodied the concepts of the "complete transaction" and "cash or its equivalents" in its revision of 1918.[32] The Supreme Court in Eisner v. Macomber rules that "Income may be defined as the gain derived from capital from labor, or from both combined,

[29] Arthur Lowes Dickinson, *op. cit.*, p. 80.
[30] George O. May, *op. cit.*, p. 91.
[31] Study Group, *op. cit.*, p. 26.
[32] George O. May, *op. cit.*, p. 26.

provided it understood to include profits gained through a sale or conversion of capital assets,"[33] emphasizing severance rather than gain herien and thereby assuming the position that no gain is conceivable being realaized. It has to be given the closest attention that the realization principle has become to be given emphasis in the laws.

As above mentioned, is noteworthy that with the rise in price level following the World War I as a turning point in America the realization principle has become to be suggested as a principle to replace the "increase in net worth" though it is not clear what was the main factor to have it generally accepted in other countries.

V. *Significance of the Evolution of Realization Principle*

What will be the significance of coming into existence of the realization principle as a basis of revenue recognition? Assuming that the realization principle has become to be suggested as such against the market price valuation as indicated before it has to be construed as the principle of revenue recognition on the goods or services homogeneous thereto. Until coming into existence of this principle, however, the so-called credit basis or obligation principle had been applied to goods and services provided they were sold or delivered and while they are stored they will be valued at market price excepting a few cases like in the capital assets. If so, in what relations should these there bases, namely, realization principle, obligation principle and market price basis of asset valuation be?

Realization principle which recognizes revenue when goods are sold is often said to be the same with the obligation principle. This must be because that when a good is sold for ¥100 will be recorded in the account receivable as well as in the sales account. However, what must be noted here is that the structure of double-entry bookkeeping or the technique of double entry in credit and debit makes the fundamental difference between them unclear. Realization principle being a principle of revenue recognition, not of assets, ¥100 which is recognized by this principle is the amount of sale and not of account receivable. On the contrary, the obligation principle being such as to put a monetary valuation on the title when it was transfered of secured, it is not the amount of sale but the amount of account receivable that is recognized by this principle.

From this reason, we can say that what are recognized by both principle are quite different and that the recognition is directed towards the different ends. This can be clearly illustrated in the income determination by both principles. Suppose, for instance, that the cost of goods sold in the foregoing example should be ¥90, gross income on sales under both principles will be

[33] Study Group, *op. cit.*, p. 26.

equally ¥10, ¥90 being deducted from ¥100. This is true. However, it must be noted that the substance of ¥100, or ¥90 is quite different depending upon which principles to take. Under the realization principle we determine gross income on sales of ¥10, goods sold cost of ¥90 being deducted from the net sales of ¥100. However, in the case of obligation principle ¥100 from which deduction is made is account receivable as an increased asset and ¥90 to be deducted therefrom is the amount of goods sold. In other words, it should be understood that in the former income is considered as the excess of revenue over expense and that in the latter as the net increase of asset, the amount of the decreased asset being deducted from the amount of the increased asset, so to speak, as the difference between capital collected and capital invested. Consequently, realization principle is one of the basis of the income statement approach of net income, while the obligation principle is the basis of the balance sheet approach of it.

It is often said about the relation between realization principle and the market price basis of asset valuation that the latter which records in the book the gain or loss arising from asset valuation is in a kind of view the other phase of accrual basis and that it is from the stand point of conservatism not to recognize revenue on the goods until they were sold and therefore defered to the next period at cost. We have already described that this view is accepted widely in Japan. However, as indicated before, accrual basis as a developed form of cash basis was originally expected to be applicable to a very limited items and not so widely as is generally understood today. It has therefore to be contended that to use the term "accrual basis" in reference to write-ups and write-downs is not only improper but also the expansion of concept except being used by the followers of market price basis of asset valuation as can be seen from the circumstances that the accrual basis as a recognition principle of revenue and expense has been conceived and developed as such as to solve the irrationality arising from the cash basis as applied in such items of revenue as the recognition of revenue accrued but not received and deferment of revenue received but not accrued and in such items of expense as the recognition of charge paid but not accrued, charge accrued but not paid and depreciation.

One of the important reasons why the term "accrual basis" has become to be used so widely seems to be the unclear understanding of the distinction between accrual basis as a recognition principle of revenue and expense and accrual basis as a mechanism of the income determination or accrual basis accounting. Accrual basis accounting here means a mechanism to determine the net income of a given period "the revenue earned during that period less the costs and expenses incurred in earning that revenue."[34] Therefore what is important here is the existence of matching between the revenue from which

---

[34] A. A. Fitzgerald and L. A. Schumer, *Classification in Accounting*, 1952, Sydney, p. 29.

deduction is to be made and the expense which is to be deducted[35] and only this corresponding relationship is important here irrespective of the fact that such revenue and expense be recognized by the accrual basis in its true meaning or cash basis or furthermore write-downs or depending upon the case even write-ups should be included in the computation. It might perhaps be unconsiously and widely misunderstood so that all the revenues and expenses including the write-ups and write-downs now in question are recognized by the accrual basis only because they are participating in the income determination of accrual accounting as revenue and expense.

As was already mentioned, the realization principle has become to be suggested as a result of critical consideration on the market price valuation of assets. Realization principle is one of the basis of the income statement approach of net income and the valuation of assets is one of the procedures of the balance sheet approach of it.

Thus, the evolution of realization principle replacing the balance sheet approach of credit basis in the determination of income means the downfall of the balance sheet approach or "increase in net worth" theory as a principle of income determination[36] and therefore the complete change-over of the idea of income determination from the balance sheet approach to the income statement approach and further more, as the balance sheet approach having the assets, liabilities and capital as the elements of caluculation and the income statement approach having revenue and expense as its elements it has to be regarded as suggesting the shift of emphasis from the balance sheet to the income statement.

---

[35] W. A. Paton and A. C. Littelon, *An Introduction to Corporate Accounting Standards*, 1940, Chicago, p. 6.
[36] Study Group, *op. cit.*, p. 27.