Unit 2 ❐ Capital and Income

Structure

2.0 Concept of Capital

That capital is the most important factor in production is accepted equally by accountants and economists. But as to the interpretation or meaning of the term 'capital', they apparently differ. This difference is not only between accountants and economists, but among accountants also there is divergence of opinion as regards the concept of capital. So, let us first see the accountants' opinion or accounting concept

of capital. Then, we may try to identify the areas of differences between the accounting capital and economic capital.

2.1 Accounting Concept of Capital

Ordinarily, accounting capital refers to what is invested in the business by the proprietors or owners. Supply of finance by other contributors to the businesses is named as loan or anything else. Only the proprietors' contribution gets the status of capital under this concept. As per the provisions of Companies Act also, capital is represented by the number of shares of certain denominations, which is nothing but the contribution of owners alone. The proprietors being at the focal point, this concept is known as the 'proprietary approach to capital. According to this approach, capital is denoted practically by the claim of the owners to the firm's wealth, not by their contribution. However, at the beginning of a business- the contribution by owners' and 'claim of them' refer to the same amount. But after a few years, retained earnings, which are in true sense the earnings of owners, are added to the contributions, and claims of owners are increased in this way to some extent. Actually, this proprietary capital has the sense where the proprietary concept of accounting is adopted. Today we are more concerned with the entity concept of accounting. Capital assumes a different meaning under this concept.

There are many accountants who distinguish capital from sources of capital. According to them, a business firm may find it necessary to finance its capital needs from different sources but this will not alter the role that capital plays in the process of generation of income. Thus, capital represents here all the assets or wealth that have been devoted to the task of generating income. The assets may be financed fully by owners or partly by borrowing and partly by owners' contribution. So, this approach to capital is known as 'total asset approach' or 'total equity approach'.

There is one more interpretation to the term 'capital'. And, this is actually the most popular concept of capital. This is also one kind of 'assets approach' to capital. But instead of taking all the assets, it deducts therefrom the amount of 'current liabilities'. Current liabilities are payable on demand. As ,such, equivalent wealth or asset is required to be kept idle instead of using it for production purposes. In that sense, current liabilities cannot involve themselves in generating income, which is practically the basic criterion for considering something as capital. So, the 'capital' here means only the owners' capital plus long-term debt In other words, total assets less current liabilities represent the 'capital' here. Net assets means assets less liabilities.

These different concepts of capital have their own merits and demerits. In fact, each of them is appropriate for an specific objective or purpose. What is proper for a particular purpose may not be so in a different context. For example, to measure management efficiency, total asset approach to capital is appropriate, whereas from the viewpoint of measuring the stability of the firm, the net asset approach or proprietary approach to capital is the best.

2.2 Economic vs. Accounting Concept of Capital

In economics, capital is defined as "the produced means of production". In other words, it is the stock of man-made equipment that is used for further production. Thus, the machinery, furniture, material which are the output of any past production process and is now used as input in the present production process are the constituents of economic capital. The phrase 'for production' is equally available in economists" and accountants' definitions of capital. But the accountants donot strictly adhere to the phrase 'produced means'. Hence, land is excluded from economic capital, though in accounting it is included in assets that comprise capital. Another point of difference between economists and accountants–is as to the inclusion of financial assets as capital. Financial assets like debtors, receivables, bank etc. are considered as capital under the total assets approach of accountants. But economists take into account only the real goods in determining the amount of capital.

Not only in concept but also in valuation or measurement principles the accounting capital and economic capital do differ. While valuing assets, the accountants depend on the historical entry prices of the assets. The economists, on the other hand, value the assets having based on anticipated net inflows from the assets. However, at present there has been an attempt to bring a reconciliation between these two concepts of capital. Accountants are now using value-based measurements in many areas and this is bringing them closer to the economists. The economists have also to understand that their measurement principles are too subjective to be reliable or useful. Land when becomes ready to be used in any firm can be treated as produced means. Economists themselves therefore feel the question of inclusion or exclusion. of land to / from capital is somewhat arbitrary. Financial assets when considered from the social point of view are automatically vanished, as for example, debtors of one firm are the creditors of others and they both are eliminated on consolidation. So, we may conclude that actually there is no difference between accounting and economic capital. The difference appears only because the accountants work in individual firms and the economists' workplace is the society as a whole.

2.3 Maintenance of Capital

Capital that is used in business is consumed in the process of production. A part of capital, known as working capital, is usually fully consumed whereas the fixed capital that is invested in durable assets like machinery is consumed in piecemeal way. Whatever it may be, the capital that is invested initially does not remain intact during or after one production cycle. It is converted ultimately into the revenue, and the revenue if taken away fully by owners for their personal use, the firm will not have sufficient capital to maintain the same level of operation. So, a part of the" resource that amounts to consumed capital should be set aside and only the balance if any may be used for personal consumption. The first part of revenue is known as return of capital or recovery of capital and the second one as return on capital or income. This setting aside of return of capital is known technically as maintenance of capital which is actually a must if one firm is to repeat its production process or to maintain the going concern status.

Thus, we understand what the term 'capital maintenance' refers to. If an enterprise has at the end of a period the same amount of capital that it had at the period's beginning &, its capital is maintained. If after a production process the entity is at break even point or at zero income level, the capital is believed to be maintained. Capital is eroded if there is loss or if there is distortion in the measurement of profit. The second situation is more dangerous because a part of capital may be distributed as surplus without any knowledge of it. So, the concept of capital maintenance provides practically the starting point in determining income. The concept being so vital a number of approaches have been developed for it. At present, there are three dominant approaches to capital maintenance.

2.3.1 Maintenance of Nominal / Financial Capital

Of the three approaches to capital maintenance, maintenance of nominal capital is the oldest one. This is the most dominant view as well. In fact, most people are inclined to view capital in financial-nominal term, i.e., they want to measure profit only after the money value of investment is recovered. If the net assets of the enterprise are worth as many monetary units at the end of the period as the firm's net assets were worth at the period's beginning, capital is said to be maintained under this approach. The capital at the end of the period may be computed having based on different valuation approaches, but in real practice the nominal capital concept is said to be followed when historical cost constitutes the primary method of valuation.

According to Mitchell and Revsine, the nominal financial capital is a neutral information set or an internally consistent and valid measure. But it has its drawbacks as well. During inflation in particular it may give rise to a distorted picture and a part of real capital may be distributed as income. As a result the ability of the enterprise to maintain its current level of operations may be impaired.

2.3.2 Maintenance of Physical Capital

The physical capital maintenance concept focuses on the maintenance of the productive capacity of the enterprise. An enterprise is said to have maintained its physical capital if it has the same level of physical assets at the end of a period as at the period's beginning. There are again three approaches to the maintenance of physical capital itself–(i) maintenance of identical physical assets, (ii) maintenance of the capacity to produce identical volume of goods, and (iii) maintenance of the capacity to produce the same value of goods and services. The exponents of second approach are of view that completely identical assets may not be available year after year. According to them, it is sufficient if same volume of product can be produced with the existing assets. The third approach again seeks to achieve something more· than what is called for in the second approach. Here value of the product is the focal point. When technology is changing very rapidly, old-fashioned goods of the same quantity may not yield same value. So, if we stick to 'identical physical assets' rule, obsolescence may lead to capital erosion. To survive in stiff competition may not also be easy.

The concept of physical capital maintenance is not a well-defined concept in accounting. According to Chambers and Sterling, this concept may have its applicability if only a number of conditions are satisfied. In real practice those conditions are hardly met. if financial assets are dominant or if asset-mix is continuously changing, the physical capital concept is difficult to apply.

2.3.3 Real Capital Maintenance

Physical capital concept being impractical in most situations, the concept of real capital maintenance has come into being. It is concerned with maintaining the purchasing power of the initial ,capital. If the capital at the end of a period can purchase the goods of same quantity and quality as it could at the beginning, the capital is said to be maintained in real sense. During inflation, purchasing power of money comes down. So, more financial capital is required to purchase the same kind of goods. This figure is found out under this system by some adjustments having based

on a price index. If inflation factor is zero, .no adjustment is necessary. Nominal capital and real capital does not show any difference in that situation.

The approaches or concepts of capital maintenance as such are not equally feasible in all situations. Where physical capital maintenance is impractical, real capital maintenance may be used. But if inflation factor is insignificant, nominal capital maintenance may not be unjustified.

2.4 Concept of Income

The central theme of the accounting system is to determine income, which is considered to be the most important single objective of the firm. As a data generating system, the conventional accounting model is designed in such a way 'so as to highlight profit or income of business firm. So, concept of income is actually the focal point of accounting theory.

The term 'income' itself is a controversial one. The said controversy does not remain confined to accountants and economists alone. It is observed in other areas as well. Various terms like 'earnings', 'income', 'profit' or 'business income' are used interchangeably to denote more or less the something. The term 'income' however bears a broader view because any kind of factor remuneration like wages, rent, interest or profit can easily go by the name of 'income'. In accounting also the term 'income' may be preferable, because profit here consists of both return to organisation and remuneration of capital. However, we shall use both the terms to convey the idea. The way in which this concept is described in economics and accounting is outlined below.

2.4.1 Economic Concept of Income

Economists themselves are not unanimous as to any single concept of income. According to Adam Smith 'income'· means net revenue that remains free after maintaining first fixed and secondly circulating capital. Haig stated that "Income is a flow of satisfaction, of intangible psychological experiences.....". Fisher, on the other hand, believed that capital is a potential service and services actually yielded by capital and what is consumed is income. Later on, Hicks also stressed on consumption while defining the term 'income', because his conclusion was, "we ought to define a man's income as the maximum value which he can consume during a weak and still expect to be as well off at the beginning". Perhaps for this reason G. D. Roy remarked, "economists have a tendency to consider income of an individual more as a consumer than a producer". Keynesian definition is, however,

to some extent different as, according to him, Y = C + 1, where Y stands for income, C for consumption and I for investment.

This 'consumption' or 'consumption plus investment' theory of income is more or less similar to the dividend and retained profit as viewed by accountants. There is also agreement between accountants and economists that income would be available only after maintaining the capital" intact. But there is considerable disagreement as regards the valuation of capital that will necessarily result in different sets of income. Economists value the capital of the firm at two points in time, compare two values, and the excess, if any, is treated as income by them. The capital is valued on the basis of discounted future net receipts. That is, long before the sale or production income is recognised by economists. Estimated receipts may differ from actual receipt. Discount rate may fluctuate. Hicksian well-offness at two separate points of time is also very difficult to measure, as Hicks himself pointed out that one cannot compare alternatives which are not available together at the same time. Hence, under condition of certainty only the economic concept of income can be said to be ideal. In the presence of uncertainty, which is the general rule, the concept loses reliability because of its essentially subjective nature.

2.4.2 Accounting Concept of Income

According to accountants, business income or profit is an excess of revenue earned over its cost. The term 'revenue' has, however, many meanings. But what is most common of them consists of debtors, cash or receivables acquired in exchange of sale of goods and services produced. Closing stock in that sense is not a part of revenue. It is rather a negative 'cost, In addition to this conventional definition of business income, accountants do also define profit as an increase of net assets or wealth at the end of an accounting period over what it was at the beginning with necessary adjustments for additions and withdrawals of capital. These two approaches to accounting income are known respectively as Matching Approach or Revenue-expense Approach and Asset-Liability Approach or Balance Sheet Approach. Mathematically, the first approach may be shown as-

$$\pi_t = R_t - Et,$$

and the second approach may be depicted as-

$$\pi_t = N\omega_t - N\omega_{t-1} + D_t - I_t,$$

where π_t stands for profit, t for time, R for revenue, E for expenses, $N\omega$ for net worth, D for Dividend and I for fresh investment. Net worth again means assets less liabilities, i.e., capital.

Regardless of the approach adopted to measure the accounting income, it has always a time dimension. Accounting income or profit invariably means periodic income or profit. A few terminable venture-like enterprises are no doubt in existence. But in general, it is incumbent to consider the class of enterprises that have perpetual existence. In such cases, there is no alternative to the measurement of income at the interval of some arbitrary and, preferably, equal periods. At the end of such periods, the net resources of the business are not converted into cash ensuring a cash-ending basis of accounting like that of terminable venture. A part of resources is to be recognised as revenue, and the" balance to be carried forward. The question of deferring the expenses that are not related to current period's recognised revenue, does also arise simultaneously. Valuation of the carried forward stock of resources is also not an easy task. That is, the convention of accounting period gives birth to a lot of accounting problems, and we cannot avoid them while measuring accounting income. In case of Revenue-Expense Approach to income, the recognition of revenue and matching of expenses appear quite naturally to be the core problems. And, in case of Asset-Liability Approach, valuation of assets and liabilities at two points of time becomes necessarily the basic problem. So, at this point it will not be out of place to have a brief discussion on them.

2.5 The Principles of Realisation / Revenue Recognition

On the date when we measure the periodic income there are likely to be many incomplete cycles and events. Finished goods and work-in process-both may be there. A part of finished goods may be sold. A portion of sale may not be realised in cash. Hence, the question arises, which is actually a crucial or critical question in accounting theory, as to when we should recognise that income has come into being. Economists usually recognise income at the event of creation of product. But the difficulty as to the valuation of that product debars accountants to take this point as the event of revenue recognition. The value at which the product can be sold in future may differ from the estimated value on the date of production. This uncertainty about both time and the amount of expected receipts and absence of evidence for verification of measurement, make accountants defer recognition of measurement of revenue till the arrival of sale point. Moreover, if the appreciation in value is considered distributable profit, manage merit will have nothing to pay to owners as dividend other than the nuts or bolts of machinery or equipment. For all this, we interpret revenue, in accordance with the principles of realisation, as the outflows of product and inflow of cash or near-cash items in exchange of them at the sale point. The 'advantage of this interpretation is that the appearance of revenue, the act of its

recognition and the event of testifying its measurement, which is now ex-post, synchronise at-the same moment.

But the principle of realisation is not free from its limitations. By focusing on only realised revenues, it may lead in some cases to absurd results. Suppose, two investors each has Rs. 1000 to invest. Each invests the amount in a company. The shares of the company double in value by the end or a period. On the last day of the period the first investor sells his share for Rs. 2000 and re-invest it in another company. The second. investor holds his shares in former company valued at Rs. 2000. Both are equally well-off, but under the principle of realisation it will be seen that the first investor has earned an income of Rs. 1000, and the second one has not earned anything.

2.6 Principles of Matching! Allocation of Cost

The matching principle constitutes the central plank of the revenue-expense approach to profit. Under this approach, costs of resources consumed in the generation of revenues should be matched against the revenues. The principle requires costs to be expensed and reported in the same accounting period as the revenues they helped generate. Although the matching notions has its applicability in many areas of accounting operations, it is usually discussed in the context of matching revenues with expenses. The idea underlying the principle of matching is very simple. Expense and revenue has a cause-and-effect relationship. Expense is, as if, an effort and revenue is the accomplishment. Accordingly, if these two are not associated neither the analysis of cause-and-effect nor the efficiency of effort can logically be judged. Hence in accounting; profit is defined as the excess of revenue after matching the relevant cost. Cost in this context may be divided into two groups-expired cost and unexpired cost. Cost that is matched against revenue is actually the expired cost because no further benefit can be generated from it. Unexpired cost is not charged against current revenue on the assumption that benefit therefrom will generate later. Thus, matching principle in a sense is the principle for allocation of cost among different accounting periods.

This allocation principle or matching principle involves estimates, judgements. It is to be assumed that costs being deferred will contribute to future revenues. The operation of the matching principles also requires forecasting of future revenues. But this goes against the principles of objectivity in accounting. This may be the reason for which the matching principle is no longer regarded as the fundamental principle of accounting. Because matching is an arbitrary process, many are in favour discarding it. According to these people. if a meaningful concept of profit is to be developed,

attention should be shifted to assets and liabilities. That is, they are favouring the balance sheet approach to accounting, which was actually the only method of profit measurement in ancient time. During the first half of the twentieth century, the importance of the balance sheet was gradually reducing and the profit and loss account was being treated as the most significant financial statement. Now again we are trying to shift towards the balance sheet, and hence the revenue-expense approach to profit is being replaced by the asset-liability approach. But this approach is not beyond criticism as the effects of cost convention create a lot of problem here. The convention as such may be summarised below.

2.6.1 Historical Cost Convention

The asset-liability approach to profit measurement requires the valuation of assets and liabilities or net wealth at two points of time. Central to this valuation process is still the historical" cost which conflicts clearly with the going-concern convention of valuation when the value of money itself is changing. This method of valuation seriously distorts the measurement of income, particularly during inflation. The distortion results from the difference between the historical cost and the current cost which is a function of the time gap between the acquisition and utilisation of assets. Under conditions of rising prices, the historical cost may bear no resemblance to the current cost of assets. As a result of that income is overstated. The principles of conservatism is also contrasted thereby, as even if there is clear indication of cost enhancement we do not make provision thereof.

This historical cost convention creates a particular problem during inflation when money units of different purchasing power are brought together in the accounting process, as if they were money units of same value. Such arithmetic is quite incorrect, for it involves adding together amounts expressed in different measurement scales. Put another way, historical cost 'mixes apples and oranges'. Owing to this additive problem the values that we obtain having based on historical" cost do give us a distorted figure of net wealth. Profit measured on the basis of that net wealth is bound to be distorted therefor.

The main advantage which is claimed for historical cost valuation is that it is verifiable, and hence it satisfies the criterion of objectivity. It may be argued, however, that if it is only the objectivity which the accounting is seeking, it should restrict itself to counting cash, since this asset is only one in respect of which complete objectivity is possible. As soon as accountants move away from it, he is dealing with subjective factor. Consequently, true objectivity is not possible under historical cost valuation also. Having based on this argument possibly, a number of alternative valuation processes have been developed. The important ones of them are :

(a) Current Purchasing Power Method (CPP)

(b) Current Replacement Cost Method (RC)

(c) Net Realisable Value Method (NRV)

(d) Discounted Cash Flow Method (DCF), and

(e) Deprival Value Method.

It will not be out of place to discuss all these methods in the context of income determination under the balance sheet approach. Because net wealth is the focal point of this approach, and each of the aforesaid methods of asset-valuation attempts to give us a fair and relevant measure of net wealth.

2.6.2 Current Purchasing Power Method

If the value of money is changing, it is clear that money standard of measurement ceases to be efficient. Financial reports should be adjusted, therefore, for the effects of changes in the value of money. If this is done it will help—

(i) to provide a more accurate basis for assessing the value of a shareholder's investment in a company;

(ii) to enable more meaningful comparison to be made between the reported results of successive years; and

(iii) to enable more meaningful inter-company comparisons to be effected.

The CPP method attempts to perfect historical cost accounting by conversions money amounts to a common purchasing power unit of measurement. In CPP measurement, the figure generated by the historical cost accounting model are adjusted using appropriate price index numbers. The underlying rationale for index number adjustment is that two items should be measured with the same scale of monetary unit so that the additive problem of historical cost basis is avoided and the resultant figures get a meaningful total. It will however, be mistaken to believe that this method can rectify valuation errors. This rather measures only the balance sheet amounts with a common measuring unit so that they are amenable to mathematical computation. The current purchasing .power adjustment is done based on the following formula :

$$\text{CPP Value} = \frac{\text{Historical Cost} \times \text{Current Price Index Number}}{\text{Historical Price Index Number}}$$

The steps to be taken for the purpose are as follows :

(i) Determination of historical values based on actual transaction / past transaction prices.

(ii) Determination of appropriate price index number.

(iii) Determination of CPP value based on formulae stated above.

For the purpose of CPP accounting, however, It IS necessary to distinguish between two classes of items-monetary and non-monetary items. Monetary items are those which are fixed by contract in monetary terms. Cash, debtors, loans or claims to specified sums of money are the examples of monetary items, whereas fixed assets and stocks, shareholders' equities are non-monetary items. Monetary items do not require CPP adjustment as automatically their purchasing power comes down or goes up along with deflationary or inflationary trends. As in case of non-monetary items this does not spontaneously happen, they should be adjusted based on some general price index.

The CPP accounting attempts to remove the major objection to historical cost valuations that the latter does not recognise the fact that unit of measurement changes when price levels change. Objectivity, as required in financial accounting is also maintained here as primarily this is based on historical cost and the price level adjustments are also verifiable by reference to the index used to measure changes in the purchasing power of money.

But CCP accounting is not also free from its limitations. As stated earlier, companies still should continue to publish accounts on a historical cost basis, and CPP accounting can be presented only on supplementary basis. These two types of information in same statement will, according to Sandilands Report, confuse the users of financial reports. There is not general agreement as to what is the best inflation index to use in CPP adjustment process. Moreover, the general price indices that we use here assume that price of all goods will move toward same direction at an identical rate. But only by coincidence this can happen. Indeed, there is no reason why the prices of different goods may not move in opposite direction. Again, it is criticised on the ground that CPP-adjusted figures do not necessarily maintain the service potential of capital. For all these reasons, accountants have tried with some other valuation methods. They are discussed below one by one.

2.6.3 Current Replacement Cost Method

An asset's current replacement cost is what a firm would require to replace the asset on a given date. Hence, under current replacement cost method assets are stated in the balance sheet at their current replacement value, i.e., which would have to be paid for bringing the similar assets into the business. This replacement cost basis of measurement has attracted a lot of support in recent years as it attempts to maintain the service potential of capital as we need in a going concern. This is also considered to pass both the additivity and usefulness test. Moreover, this is often justified as a reasonable surrogate for net present value.

In view of all the above, the replacement cost basis is no doubt an improvement over the historical cost basis of measurement, but there are some serious problems associated with it. The underlying assumption behind this method is that the firm is continuously replacing its assets. But this is not always a valid assumption. It is also criticised for the reason that it violates the realisation test. Thirdly, this method is completely inapplicable as active second-hand markets are almost non-existent for used equipment or partially produced products. Then, how shall we assess the replacement cost of assets that are in use in the firm? For this reason, most are avoiding this method and of opinion that this method may be theoretically sound, but in practice it cannot gain ground.

2.6.4 Net Realisable Value Method

Net Realisable Value Method is also known as Current Exit Price Method whose objective is to report assets on the balance sheet at their current relisable value. An asset's current relisable value means the cash amount that the asset could fetch if sold currently in the ordinary course of business. R. J. Chambers is the staunch supporter of this method of asset valuation. R. R. Sterling is another accounting writer who holds strongly that this method is an objective and dependable measure of value. According to them, net realisable value serves a very useful purpose in providing a basis for assessing the adaptive ability of a firm in a changing business environment. When environment changes, a firm is to change its asset-mix for survival and growth. Whether the firm is able to do this or not is determined greatly by the amount of cash that its assets can command. Thus, in dynamic situation, which is at present a rule of the day, the present method is best-suited. By contrast, replacement cost accounting is suitable only in a relatively static situation that is at present totally non-existent. A further argument in favour of realisable value lies in its relevance to the needs of creditors. Creditors while extending credit facilities, be it with security of assets or not, take into account the current cash equivalent of assets held by the company. It is also argued that, as this concept leads to realisable instead of realised profit, the profit as such is an acceptable surrogate for economic income. Net realisable value doesnot require arbitrary cost allocation practices.

Thus, net realisable value has a number of advantages no doubt, but it cannot be denied that it does not adhere to the going concern concept. This is effectively a break-up basis of accounting which is usually adopted at the time of liquidation or winding up of the business. Moreover, assets that are now used in different firms, are mostly specific in nature to the respective firms. Other ones may not get so much benefit having purchased the same. As a result,' the assets are likely to have low realisable value, and in some cases no value though the assets continue to provide benefit to the respective enterprises.

2.6.5 Discounted Cash Flow Method

Under this method, the value of an asset is obtained by calculating the discounted net cash inflows expected to be derived from the asset. The value as such is known as economic value or net present value. This is called economic value of asset because economists do value the assets or capital based on this method. The determination of this kind of value requires the projection of future cash flows related to the asset and discounting those cash flows to the present value using an appropriate discounting rate. The steps to be taken, therefore, to reach this value may be shown as below :

(a) Estimation of future net cash inflows

(b) Determination of timing of those inflows

(c) Determination of discount rate

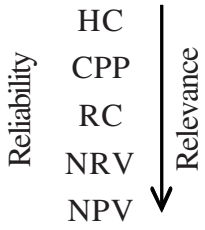
(d) Computation of discounted values

(e) Determination of asset value which is the sum total of all the discounted amounts.

If it is to be shown algebraically, it will appear as follows : $P = \frac{F}{(1+i)^n}$ where P = present value of asset, F = future cash inflows, i = discount rate and n = number of years.

Although the logic of the discounted cash flow is impeccable, it has some serious practical problems of its own. Estimating future cash flows and also the discount rate is highly subjective, particularly in this age of uncertainty. In fact, the formidable problem that lies with this method relates to the estimation of cash flows of a single asset. Cash flows are virtually impossible to estimate except when they are contractually fixed. In most businesses cash flows result from a number of assets working together. Contribution of human asset is tremendous in this respect. As a result, it is rather absurd to identify or isolate the cash flows produced by a single asset. On this point at least accountants cannot accept economic values of assets. This may be an ideal basis for measuring the value of an entity as a whole. But there also remains the subjectivity as to the estimation of future cash flows and that of discount rate.

Thus, we see that both the accountant and economist are continuously in search of a relevant and reliable basis for the valuation of assets. But the discussion so far made exhibits that none of the methods fulfils simultaneously the reliability and relevance criteria. Rather, it appears that these two criteria are, as if, mutually exclusive so far as at least the usefulness of several valuation methods is concerned.



As we move from historical cost basis to net present value method, relevance will move with us in the same direction, whereas the reliability will move towards opposite direction. That is, when we try to get one .in any of the method of asset-valuation we cannot but sacrifice the other almost proportionately. So, none of the methods is self-sufficient or unmixed blessing in the context of supplying useful information as to profit or capital. In view of this, we have get a mixed measurement approach that has been coined as Deprival Value Concept.

2.6.6 Deprival Value Concept

Deprival value concept is actually a mixed measurement system that is developed within the broad framework of current value accounting. As we have seen earlier, the current value of an asset can be determined based on replacement cost, net realisable value or net present value. Though for some assets these alternative measures give the same value, in many cases the differences may be significant. In the latter cases, one should select the method which will produce more relevant value of assets. It is said that current value of an asset is at its most relevant point when it reflects the loss that the entity would suffer if it were deprived of the asset involved, J.C. Bonbright is said to be the father of this concept, though he developed it for some other purpose. The amplified version of the concept initiated by Bonbright has come to be known as deprival value. According to the accounting writers, this deprival value of an asset can never be more than the amount needed to replace it. This is because if the owner were deprived of an asset he could restore his original Position by buying a new asset. Thus, the replacement cost is vital here. But before that we must determine whether the asset is worth replacing or not. An asset's, if not replaced, is either used or sold in the market. In that case, if the owner is deprived of the asset then the loss of the owner will be equal to the recoverable amount from the asset either by use (NPV) or by sale (NRV). So, while computing the deprival value of an asset we are to determine first the recoverable amount from the asset. This will obviously be higher of NPV and NRV. Then it will be necessary to know how much it would cost to replace the asset. If the replacement cost is lower, we

will replace the asset and the deprival value will then be the replacement cost. Otherwise the higher of NPV and NRV will come out to be the deprival value.

As historical cost has no role to play in finding out deprived value, it does not suffer from additive problems or the like. In most cases, replacement cost becomes the deprival value and hence the latter is relevant as well as useful for decision-making. Where replacement is not viable, the basis of measurement is shifted to recoverable amount. In pure replacement cost system this flexibility is not available. In that sense deprival value is better than replacement cost. Still, its critics are not small in number. It is alleged that the deprival value is an unrealistic concept, as actually the firm is not deprived of the asset. This may give birth to what is known in economics as 'psychic income'. Moreover, as different assets under this concept may be valued under different methods, the aggregate of balance sheet sill suffer to some extent from the addilivity problem.

2.6.7 Valuation of Liabilities

Balance sheet approach to accounting income requires not only the valuation of assets, but also that of liabilities. But the fact is that the amounts payable in respect of most liabilities are determined by contract or agreement. Hence, though it is argued in some corners that liabilities should also be valued having based on same reasoning as in case of assets, in practice liabilities are valued based on their contractual amounts. Assets and liabilities being valued in this way may give us the net wealth of an enterprise on a particular date. By comparing such net wealth at two points of time we may get the surplus or deficit in net wealth over a period of time. This is income under balance sheet approach.

2.7 Balance Sheet Approach vs. Matching Approach

We have put forward two approaches to income measurement: Asset-Liability Approach and Revenue-Expenses Approach. Under the transaction or matching approach, accounting income is determined by matching revenues and expenses. But revenues are denoted by resource (or asset) inflows and expenses by resource outflows. Expired costs refer to expenses. But the measures of cost expirations are derived mainly on the basis of recorded values of assets. So, different measures of revenues and expenses are likely to arise from adoption of different methods of valuation of assets. As for example, if expired costs are measured on the basis of historical costs of assets we will get one measure expense (on depreciation etc.) and this expense will differ significantly if, instead of using historical costs, some other current costs

are used, So, due to additive or allocation problem if transaction approach is subjective or arbitrary, the balance sheet approach is equally so or *vice versa.* All the problems lie in the concept of accounting period. As we want period income instead of lifetime income, we cannot avoid subjectivity. No forecasting, no estimation, no allocation, no valuation problem arise in case of lifetime profit. So, whatever concept we lead of capital valuation adopt, the result will be the same. That is, finally all roads to Rome, but that life time profit is available only after the liquidation of business or only in case of venture-like businesses. But as we are concerned more with going concern we must bear with the subjective periodic profit. However, the users of accounting information must be well aware of this limitation of periodic profit. They will be able then to make some adjustments that is necessary to suit their individual problems to different situations. Some accountants prefer therefore the cash profit, instead of the profit measured on accrual basis. This point will be discussed in the next chapter.

2.8 Exercise

A. Short answer type questions :

1. Name the approach that takes the aggregate of all assets as capital.
2. How are 'net assets computed?
3. What are the constituents of residual equity?
4. Name three approaches to capital maintenance?
5. What are the alternatives to historical cost approach to asset valuation?
6. What do you mean by proprietary approach to capital?
7. Distinguish between proprietary capital and entity capital.
8. Can money be treated as capital?
9. Real capital is also one kind of financial capital-Do you agree? Give reasons.
10. What do you mean by transaction approach to income?
11. Define balance sheet approach to income measurement.
12. Give a brief description of net present value method.
13. Discuss in brief the features of the current purchasing power method (CPP) of asset valuation.

B. Long-answer type questions :

1. Explain the accounting concept of capital. How does it differ from the economic concept of capital? How would you reconcile the two concepts?

2. (a) 'The concept of capital maintenance is at the centre of accounting theory.' Do you agree? Explain.

   (b) Discuss different approaches to capital maintenance.

3. Critically examine the different approaches to capital maintenance. How does capital maintenance affect profit?

4. 'Historical cost convention poses a number of problems to income measurement.' Discuss.

5. Alternative approaches to historical cost measurement may be relevant but not reliable-Discuss.

6. Distinguish between accounting concept and economic concept of income. How do accountants themselves differ in measuring accounting income?

   [Hints : Economists are interested in the overall income of the society but accountants measure the income of individual enterprise. Different interested groups have legal claims on reported income. So unlike economists, they rely more on reliability than on relevance. Economists claim that their income is more relevant, but as Canning himself observes economists income is subjective, and subjective figure cannot be relevant or useful.

   Economists speak of 'psychic income or real income consisting of goods and services. But accountants always speak money income, be it the real income expressed in money value or the nominal income in terms of money units.

   Accounting income refers mainly to net income to stockholders or to equity. But in economics all the factor costs like wages, rent etc. are also treated as income, though in hands of other people.

   Economists generally treat capital gains as windfall income but accountants never include' it in income statement.]

7. Discuss the relationship between capital and income. Illustrate in this context two terms-return of capital and return on capital.

   [Hints : Return of capital means recovery of capital and return on capital means income.

   Capital is stock of benefit, income is flow of benefits.

   Capital is, as if, a tree, income is its fruits.

   Capital is embodiment of potential services, income IS enjoyment of services.

Capital is like a reservoir of water, profit is the flow of excess water out of it.

Capital and income are so closely related that if one is distorted due to wrong measurement or faulty approach, the other will also be distorted. If return of capital is measured wrongly, return on capital will also show a distorted figure, as they are two slices of one thing-revenue. Balance sheet and profit and loss account exhibit this fact 'very clearly. If net profit in profit statement is inflated for any reason, capital will also be inflated or *vice versa*].

2.3 References

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