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A COMPARATIVE STUDY OF THE LEGAL AND ACCOUNTING CONCEPTS OF INCOME WITH REFERENCE TO TURKISH TAX SYSTEM

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A C K N O W L E D G E M E N T S

I would like to express my gratitude to Prof. Dr. Özer Ertuna who patiently edited the whole manuscript and , suggested many new ideas. Especially chapters 6 and 8 are mainly based on his theory of asset valuation and income determination, which, I beleive, shall revolutionise the accounting theory . The errors that remain are despite his helpful advice .

I am also indebted to Prof. Dr. Kenan Bulutoğlu, for his help, in answering numerous questions in relation to Turkish Tax System .

Ali Adnan İnal

I n t r o d u c t i o n

The purpose of this thesis is to present a comparative study of the legal and accounting concepts of income with reference to Turkish Tax System .

Some people believe that income determined for fiscal purposes is a good approximation to a theoretically correct income figure. On the other hand, many people believe that, income determined for fiscal purposes is good only for the determination of the tax base and it is far from being useful for many kinds of decisions.

Why a correct determination of income is important? If the sole objective was determination of the tax base then the problem would be very easy to handle. We would simply follow the rules and procedures prescribed in the tax laws and arrive at an income figure which is perfectly correct, as long as our objective is determination of the tax base.

However, government is not the only party who is interested in our income figure. The management itself would be interested in a correct income figure for internal decision making purposes. The creditors are also interested in a correct income figure since repayment of a debt is a function of the income of the debtor. Owners are interested in the income figure for their consumption decisions and to decide whether to keep or sell their shares. A correct income figure may be a good criterion to evaluate and predict the performance of a company. Prospective investors are also interested in a correct income figure since they want to invest their money in companies which performed well in the past and which are expected to perform well in the future .

Thus, income determined in conformity with the rules and regulations prescribed in the tax laws may be good and relevant for tax purposes. But we may not wish to restrict ourselves with the rules prescribed in the tax laws in determination of an income figure relevant for other purposes. In this thesis we shall try to present a correct approach to income determination which would be most meaningful for the interested parties other than the government. And then, we shall compare and contrast it with the methods of income determination prescribed in the Turkish Tax Laws.

In the first two chapters, we shall be mainly interested in a discussion on the basic nature of the concepts such as , revenue, expense, and income . Thus we shall be interested in the question of what is income rather than the calculation of income. Our discussions shall be on the concept of income in abstraction from the double entry book keeping system.

Starting from chapter 3 through chapter 8 we shall analyse the legal method of income determination on the one hand , and on the other hand we shall present an income determination theory which is conceptually sound and which has much theoretical value as well as practical advantages . We shall compare a theoretically correct approach to income determination with the provisions of the Turkish Tax Laws. We shall try to present the similarities and dissimilarities between the legal and accounting concepts of income and evaluate the effect of differences between two such concepts .

In chapters 10 , 11, and 12 we shall deal with specific points of divergence between legal and accounting concepts of income, which are considered to be important enough to be dealth with, in seperate chapters .

CHAPTER I

DEFINITION OF THE BASIC CONCEPTS

> Much of the best effort of human thought must go, therefore, to delimit the vagueness of words and eliminate their ambiguity. Vagueness can be reduced but never completely eliminated. Ambiguity also can with care be successfully overcome.
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> — Morris R. Cohen and Ernest Nagel, Logic and Scientific Method (New York: Harcourt, Brace and World, Inc., 1934), p.225

Definition of the basic concepts at the outset, though not in a formal sense, is essential in order to develop a logically consistent framework. With this idea in mind we shall spend some time on the general nature of the basic concepts such as revenue, expense, gain, loss and matching revenues and expenses.

Revenue

There are many definitions of revenue. Layman does not make any distinction between revenue and income. It is interesting to see that in The Advanced Learner's Dictionary of Current English, revenue is defined strictly as income.[1] In The New American Webster Dictionary, revenue is defined as income from real or personal property.[2]

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1. A.S.Hornby, E.V.Gatenby, H.Wakefield, The Advanced Learner's Dictionary of Current English (London: Oxford University Press, 1963), p.884.
2. The New American Webster Handy College Dictionary (New York: The New American Library of World Literature, Inc., 1956), p.392.

On the other hand we have some legal definitions of revenue developed for tax purposes. Taxes are powerful tools in the hands of governments to implement the national economic policy.They can be employed to reach national economic and social goals. Therefore legal definitions of revenue are more directed to practical goals. Commercial revenue, agricultural revenue, personal revenue etc. and the corresponding expenses to be deducted inorder to reach a taxable income figure, taxes to be applied, exemptions and exceptions in each case, are all defined in the tax laws, as a compromise between the theoretical concepts and practical goals .

Finally we have the definitions of accountants and theoreticians . There are a lot of definitions made by different accountants.These definitions differ in one respect or other . There is a continuing discussion about what is a revenue , whether it is an inflow or outgo,etc. However,most of the discussions are mainly based on the recording techniques rather than the basic nature of the concepts .

Some theoreticians define revenue as a net increase in assets. They claim that , " ... the etymology and popular usage of revenue clearly establish that its primary characteristic is an increment in a net asset item....It is extreemely doubtful if those writers would define revenue as a decrease in assets if they were asked to forget all about the double entry recording system. " [1] According to this view, the basic concept

1. George J.Staubus,Revenue and Revenue Accounts, from Accounting Research,Vol.7(January 1956),pp.284-94 ; as quoted in , Davidson,Green,Horngren,Sorter, An Income Approach to Accounting Theory ; Prentice-Hall,Inc. Englewood Cliffs, NewJersey, Second Printing ,1964, p.79 .

of revenue should be considered first rather than recording of it by an accounting system.System of recording should not constitute a base for an understanding of the basic concepts in accounting.Double entry bookkeeping system is better to be based on the ideas about the fundamental concepts of accounting rather than the vice versa .

The primary characteristic of revenue is stated to be an increment in a net asset item.Ofcourse not all increments in a net asset item are revenue. For example a net increase in assets due to contributions of the owners do not constitute a revenue. On the other hand, not all revenues result in a net increase in assets. In case goods are sold for the sttlement of a debt, revenue results in a reduction in liabilities rather than an increase in assets. Increase in wealth ,and revenue creation , difference between income and gain, and some other points shall be discussed more thoroughly as we proceed. However,if the primary characteristic of revenue is defined as an increment in a net asset item, it is necessary to define the very term asset and define it in a way consistent with the above argument.That is to say, the concept itself and a recording device should not be confused. Assets are properties,goods or rights which have some value for the accounting entity.Assets do have some value for the entity either because they are expected to generate cash or result in cash savings in the future. Value is a function of the satisfaction arising from this expectation .

As I mentioned earlier, some theoreticians are interested in the discussion whether revenue is an inflow or outflow of assets. Some assert that, " the customary procedure of measuring services rendered to customers in terms of the inflow of money received in exchange for them tends to obscure the social conception of the basic nature of revenue. Basically from the viewpoint of society as a whole, revenue is an outflow of services rendered to customers and not an inflow."[1] An outstanding authority in this field, Professor Paton describes revenue as " ...an aggregate of all decreases in assets and cost factors attributable to the volume of business in question and the addition to equities (income)..."[2] Some others on the other hand, argue that revenue is not an outgo and thus not a decrease in assets ,and just the contrary it is an increment in a net asset item. They find it extreemely doubtful if those writers would define revenue as a decrease in assets if they were asked to forget about the double entry recording system.

In a revenue event there is both an inflow and an outflow of assets whether implicit or explicit in the transaction. For example when a revenue event results in a reduction of a liability account, there is an implicit inflow of assets. We may consider it as if we obtained cash as a first step and then used it to settle the liability. The inflowing and outflowing assets should be measured by the same measuring unit. Inflowing assets may be greater or smaller than the outflowing assets in value. However, normally, the value of the inflowing assets are expected to be greater than that of outflowing assets. Revenue defined in this sense arise mainly out of the ordinary course of business establishment in which the business establishment renders a good or service in return .

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1. Norton M. Bedford ; Income Determination Theory : An Accounting Framework ; Addison-Wesley. Reading, Massachusetts, 1965, p.92 .
2. Paton, Essentials of Accounting, p.77 ; Other outgo definitions were found in Paton, Accounting Theory p.153, and Paton and Littleton, Corporate Accounting Standards, p.46 ; as quoted in George J. Staubus, op.cit., p.82 .

There are many sources of increase in assets some of which may not indicate a revenue event.Assets contributed by owners,creditors,donors, and discoveries do not indicate revenues.Interest and dividends earned may be considered as revenue if the ordinary course of business is to deal with securities such as in case of a holding company. Otherwise,it is better to classify them as a seperate item such as non operating income. The gains arising out of sale or exchange of assets are another point of confusion. If the gain is an unexpected one and did not arise out of the normal course of operations as it is usually the case,then,they are not included in our definition of revenue. However,if the main activity of the company is holding some sort of assets with the expectation of realizing gains on these assets and if the main effort of the business is directed towards this end,then such a gain,if any, may be considered as a revenue for such a firm .

Another problem in relation to revenues is the problem of earning, realizing and recognizing revenues. Revenues are earned during the entire process of production of goods or services. Acquisition of the raw materials, recruitment of the labor,actual production,warehousing,advertising,distribution , and collection of accounts receivables are all different phases of earning revenues. Earning is a process, it does not occur instantaneously by a spesific action or event. Earning may be a result of a series of events and/or collective effort, or it may be directly related to passage of time.Thus accrued interest or rent may be considered as an earned revenue, since a service has been provided in return .

On the other hand, realization is a function of a spesific action or event or a point of time. Establishment of the enterprise,production of the goods and services, collection of the proceeds and the actual consumption is a continum. Realization of revenue may be at (or during) any point on this continum depending on the nature of the business and circumstances involved. Although there are many definitions of realization ,we may develop our own definition of the realization of revenue, and define it at best as a function of the occurence of an event which makes the disposition of the inflowing assets arising out of a revenue event sufficiently probable. Realization is a subjective concept. A revenue earned and realized by a company may not be considered as realized from the stockholders' point of view. It is ridiculous to try to find a specific event or point of time which shall serve as a universal criterion of realization. Naturally, point of realization depends on the nature of business,prevailing circumstances and the personal attitute towards uncertainity. Recognition of revenue which means recording the revenue can at best depend on the time of realization .

E x p e n s e

Expenses are the expired portion of assets.In the process of earning revenue the firm uses up some part of its assets. If we describe a revenue event as a decrease and increase in assets or as an inflow and outflow of assets, then expense is the decrease in assets or outgo of assets part of this event. "Under this usage,assets or costs incurred would clearly mean charges awaiting future revenue,where as expenses or costs applied,would clearly mean charges against present revenue, each with suitable subclasses as occasion required."[1]

1. W.A.Paton and A.C.Littleton ; An Introduction to Corporate Accounting Standards ; American Accounting Association , Monograph No.3,1965, Iowa; p.26 .

The primary characteristic of expenses is the fact that all kind of expenses require a cash outlay implicitly or explicitly at some time. Depreciation expense requires a cash outlay in the past, expense of goods sold,wages and salaries,etc. may require a cash outlay in this period, a deferred income tax requires a cash outlay in the future.It may be argued that acquisition of assets at the outset might have been financed through issuance of shares of stock.However, even in such a case there is an implicit cash outlay for the acquisition of assets which are expensed later on, since this transaction is in fact a combination of two steps,first being the issuance of the shares of stock for cash and secondly the outlay of cash for the acquisition of assets.

Expenses are either a function of specific revenues or they are merely a function of the passage of time.Expenses of goods sold for example is directly related to the revenue generated by the sale of goods. A part of depreciation expense or the president's salary on the other hand are merely a function of the passage of time.In the first group where expenses are directly related with specific revenues, expenses are recognized at the same time revenues are recognized.In the second group where expenses are a function of the passage of time, expenses are recognized for the period during which revenues are recognized.

A major difficulty in the measurement of expenses arise when a single cash outlay benefits future periods.The problem is allocating the cost to each year which benefited from the lump sum outlay.If the interval between the cash outlay and the expiration of cost is long enough,changes in the general price level or changes in the prices of specific assets creates another problem. Time value of money should also be taken into account if a significant interval follows the cash outlay.

Losses on the other hand are unexpected decreases in assets , unintentional and uncontrollable by the management .

<u>Matching revenues and expenses</u>

Inorder to reach an income figure, realized revenues should be matched with the expenses incurred during the earning process of those revenues and with the expenses chargable to the period in which those revenues are earned. During the matching process we face with a major problem.Revenues may be matched with the expired portion of the assets which are kept at historical cost ; or revenues may be matched with the corresponding replacement cost of the expired portion of assets. Some argue that historical costs should be matched with revenues. They assert that matching is not a financial process of accumulating funds for replacement but it is simply a matter of assigning incurred costs, incurred in generating revenue. For example it is claimed that , "Depreciation accounting has no direct relation to the problem of replacement ; recognizing depreciation is a technical process of assigning costs to revenues , not a financial process of accumulating funds."[1]

We all agree that recognizing depreciation is not a financial process of accumulating funds. But, there is a good reason to use the replacement costs in assigning expenses to revenues. That is a matter of measurement. In the process of income determination it is hardly justifiable to measure one part of it with a different yardstick than that employed to measure the

1. W.A.Paton and A.C.Littleton ; <u>op.cit</u>.,p.66

other part of it. "One ordinarily would not consider deducting expenses measured in Canadian dollars (worth about 92 U.S.cents) from revenues measured in U.S. dollars,ignoring the exchange rate because both are called dollars.Yet the effect of doing so might be considerably less misleading than the common practice of deducting expenses measured in 1954 U.S. dollars from revenues measured in 1964 U.S. dollars."[1] Assuming inflation ,(which is a realistic assumption) the measuring unit of ten years ago is not the same as the measuring unit of present time. The fact that both are called dollars, marks,or Turkish Liras does not constitute sufficient reason to use them cooperatively in the measurement of income. Revenues and expenses are inflows and outflows of assets and both should be measured by the same mesuring unit inorder to reach a meaningful income figure.It would be inherently inconsistent to employ different measuring units for the inflowing and outgoing assets in the process of matching revenues and expenses .

A business enterprise is a going concern and generally its primary purpose is to continue its operations without contraction. A major purpose of income determination on the other hand is to have a base for evaluation and prediction of the present and future well being of the entity. "In the interest of improving the measurement of income as a basis for evaluations and predictions ,the income statement should distinguish between (1) the results of ordinary operations,(2) holding gains and losses,and (3) the effects of changes in the general price level."[2] Changes in the prices of specific assets and changes in the general price level are external economic events on

1. Robert K.Jaedicke,Robert T.Sprouse ; Accounting Flows : Income,Funds,and Cash ; Foundations of Finance Series ; Prentice-Hall,Inc., Englewood Cliffs, NewJersey,1965,p.53 .

2. Ibid , p.76 .

which management has no control. In evaluating managerial efficiency an income figure distorted by external factors would most probably misleading as well as in evaluating the economic well being of the entity.

A business enterprise would at least aim at continuing its business without contraction.Inorder to continue its operations without impairment of capital its resources should be replenished .Replacement of its declining assets on the other hand can only be done at current costs."A firm whose prices do not cover the cost of replacing expired materials and services , as well as the taxes imposed upon it, is necessarily in the process of liquidation.Its customers are the beneficiaries at the expense of its stockholders,in a very real sense,it is distributing to its customers the assets supplied by its stockholders.The most fundamental economic distinction between capital and income is involved."[1] For a going concern to meet the least requirement of being in the business,that is to continue operations without contraction and without impairement of capital, relevant cost of expired assets to be used in the matching process is the replacement cost, rather than the historical cost .

1. Ibid , p.76 .

CHAPTER II

A DISCUSSION ON THE BASIC NATURE OF THE CONCEPT OF INCOME

> It remains true, however, that net income being based on an equivocal criterion which different authorities might interpret differently is not clear cut. J.M.Keynes. [1]

> It remains true that income is a subjective concept, dependent on the particular expectations of the individual in question. J.R.Hicks. [2]

In this chapter we shall be mainly interested in the question of what is income rather than how it is determined through double entry recording system. We believe that income determination through double entry book keeping system should not constitute a base for an understanding of the basic concepts in accounting. Rather we should have an understanding of the basic nature of the income concept at the outset and then try to determine it through some accounting methods. Recording techniques should be based on the fundamental concept of income rather than the concept of income to be based on some recording techniques. Therefore in this chapter we shall not deal with double entry bookkeeping system. We shall rather concentrate on a basic understanding of the concept of income. We shall try to clarify the distinction between income and capital. Distinction between income and a windfall gain (or loss), their effects on consumption and other decisions shall

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1. John Maynard Keynes ; The General Theory of Employement Interest and Money ; 1936, London, MacMillan and Co.LTD , 1964, p.60 .
2. J.R.Hicks ; Value and Capital ; 1939 , 2nd Edition, Oxford at the Clarendon Press, 1961, p.177 .

be emphasized. Income determination through double entry recording system shall be discussed in chapter III .

There are many definitions of income developed by different authorities. These definitions differ in one respect or other. However, the reason for the difference between different concepts of income developed by different authorities is not that they are defining different concepts. Rather they are looking at the same concept from different points of view or they have different frames of reference. Thus an economist may be influenced by economic theory, an accountant by the double entry recording system, and a legislator by practical implications in their attempt to define the concept of income .

However we can hardly blame those authorities because of their differing definitions of the same concept . An accurate measurement of income is very difficult if not impossible, unless it is based on some assumptions. Life is uncertain and it is not perfect. Therefore some degree of abstraction is essential for the development of an unambigious income concept. In other words, an income determination model can be based on a set of assumptions which may not hold true in real life situations . Different concepts of income developed by different authorities can at best derived from logically consistent models . but the validity of the starting assumptions remains to be critically evaluated .

Keynes' definition of income

The main purpose of discussing Keynes' definition of income in this chapter is, first, to have a theoretical understanding of the concept of income over and above the bookkeeping methods and secondly to have an understanding of the distinction between income of the current period and the windfall events which are directly related to capital .

Keynes developed o logically consistent and according to his opinion an unambigious definition of income.He has developed his own terminology,defined what he means by user cost,factor cost,prime cost,supplementary cost,income and net income.His distinction between changes in the value of capital equipment due to voluntary decisions of the entrepreneur and involuntary loss (or gain) in the value of his capital equipment, and his distinction between involuntary unavoidable losses which are expected and, involuntary unavoidable losses which are generally unexpected, and their effects on income and capital accounts are especially interesting .

We can summarize Keynes' definition of income as follows . During a period an entrepreneur shall sell his output both to some other entrepreneurs and to consumers for an amount, A . On the other hand he shall himself buy some goods from some other entrepreneurs for an amount, A_1 . At the end of the period, he shall end up with a capital equipment G , "which term includes both his stocks of unfinished goods or working capital and his stocks of finished goods."[1] Some part of the amount $A + G - A_1$ however would have been contributed by the capital equipment at the beginning of the period .

1. J.M.Keynes ; op.cit. p.52 .

Actually, G is a result of two kinds of activities ; first, improvement or increase in the capital equipment at the beginning of the period both by purchases from other entrepreneurs and by work done upon it by himself,and secondly,using up this capital equipment for the production of finished goods he sold.

In case he did not use any amount out of the capital equipment (in the sense defined by Keynes) at the beginning of the period,for production of the goods sold, still there would be an optimum amount he would have spent in order to maintain and improve it . Let's say the optimum amount he would have spent for maintaining and improving the capital equipment at the beginning of the period is B' and the corresponding amount of capital equipment which the entrepreneur would have at the end of the period is G' , provided no part of the capital equipment has diminished for the production of the goods sold.The excess of the amount $(G'-B')$ over $(G-A_1)$ is called the amount sacrificed in one way or other inorder to produce A , and it is called the user cost of A .

$$(G'-B') - (G-A_1) \quad : \quad \text{User Cost of A}$$

$(G'-B')$ is the maximum net value we would have in case we did not use it to produce A . G is the actual amount of capital equipment we have at the end of the period; and we deduct A_1 from G inorder to eliminate changes in the capital equipment due to some additional purchases of this period, because we want to determine the change in the capital equipment , merely due to production of the goods sold. Accordingly , $(G'-B')-(G-A_1)$ is the net amount sacrificed in this period to produce the amount sold .

The amount paid to other factors of production in return for their services is called the factor cost of A . As we notice,

A_1 was the amount paid by the entrepreneur to other entrepreneurs for their finished output. Factor cost on the other hand is the amount paid to other factors of production (non-entrepreneurs), in return for their services. The sum of the factor cost F and user cost U is called the prime cost of A .

Accordingly, income of the period is defined in terms of A , and the prime cost of A . Using Keynes' words, "we can then define the income (as distinguished from his net income which we shall define below) of the entrepreneur as being the excess of the value of his finished output sold during the period over his prime cost."[1]

In his definition of income of the entrepreneur Keynes included only the changes in the value of the capital equipment due to the voluntary and controllable decisions of the entrepreneur. But there may be also some involuntary changes in the value of capital equipment when compared to its value at the beginning of the period, which are uncontrollable by the entrepreneur.

Keynes goes further and makes a distinction between those involuntary losses (or gains) which are generally expected and those which are unforeseen. Thus he defines the supplementary cost as that part of the depreciation of the equipment which is involuntary but not unexpected, i.e. the excess of the expected depreciation over the user cost. The supplementary cost is deducted from the income defined above inorder to arrive at the net income .

The problem, however, is how shall we deal with those changes in the value of equipment when compared to its value at the beginning of the period, due to events uncontrollable by the entrepreneur such as changes in market values, exceptional

1. Ibid , p.53

obsolescence,or destruction by catastrophe which are both involuntary and unexpected in general.

Such changes in the value of capital equipment identified as windfall losses are not included in the calculation of net income and they are directly charged to capital account according to Keynes' definition of net income.Expectations about the supplementary cost may change as we proceed in time.Thus the windfall capital loss is defined as the discounted value of the difference between the former and the revised expectation of the prospective series of user cost plus supplementary cost.Needless to say estimation of the supplementary cost is a subjective one it by its nature depends on expectations. Therefore Keynes says that "we cannot get closer to a quantitative definition of supplementary cost than that is comprises those deductions from his income which a typical entrepreneur makes before reckoning what he considers his net income for the purpose of declaring a dividend (in case of a corporation) or of deciding the scale of his current consumption (in the case of an individual)."[1]

One of the purposes of net income determination is to allow for proper consumption decisions.However the effect of an expected change in the value of capital equipment (which term includes both his stocks of unfinished goods or working capital and stocks of finished goods,as mentioned above) on consumption is most probably going to be different than the effect of an expected one.Knowledge of an uncontrollable and unavoidable but an expected event may result in proper current consumption decisions. On the other hand, a windfall loss is an unexpected event and may affect only the consumption decisions pertaining to those periods after it has happened.

1. *Ibid*, p.59 .

Therefore,incorporation of that part of the change in the value of capital equipment,in excess of the user cost,which was expected though it was uncontrollable involuntary and unavoidable,in the calculation of net income seems to be justifiable hoping that such a procedure will lead to better consumption decisions. A windfall loss does not affect consumption decisions in the same manner as an expected change in the value of capital equipment.A windfall loss should not distort the income figure and it should be directly charged to capital account,although knowledge of both is necessary. In other words it is nice to know, a company has earned and realized a net income of 10000 TL and incurred a windfall loss of 10000 TL in the same period,but it should not preferred to cancel these two figures and declare a net income of zero TL. The effects of these two kinds of presentation may be different on consumption decisions .

In case no net income is declared the stockholders may be more pessimistic in their expectations about the future.Where as in case a net income of 10000 TL is declared(which may be accepted as a result of a fair effort on the part of the management for the previous year), they can see that management was no worse off in their efficiency to create net income and thus may be more optimistic in their consumption decisions . After all, a loss of 10000 TL is a very irregular event (otherwise it would have been expected), which shall most probably never happen again. Purpose af accounting should be generation and presentation of information such that it will lead better decisions .

In his attempt to make an unambigious definition of income Keynes developed a logically consistent framework.However , his income model is based on some abstract concepts which makes his definition rather vague. For example, inorder to define the user cost of the entrepreneur Keynes defines " B' " as an optimum amount that should be spent inorder to maintain and improve the capital equipment at the beginning of the period. However determination of that "optimum amount" which is an ambigious term is not mentioned at all .

On the other hand, Keynes makes a sharp distiction between expected and unexpected events in the determination of income. However expectation is a subjective concept.Our expectations about the future events may change as time proceeds. Besides, an event which is unexpected for one person may be an expected event for another person .

Keynes takes into account expected but uncontrollable and involuntary events (as reflected in the concept of supplementary cost), in the determination of income.However, although these events are expected ,since they are uncontrollable and involuntary on the part of management it may be more appropriate if such events affect directly the capital account rather than income of the period , from the viewpoint of evaluating the performance of a business enterprise .

Hicks' definition of income

In his "Value and Capital",Hicks discuss several definitions of income.However, he believes that those definitions are in fact approximations to the central meaning of income.After the discussions on a series of approximations to what he calls the central meaning of income, he defines " a man's income as the maximum value which he can consume during a week, and still expect to be as well off at the end of the week as he was at the beginning."[1] Generally it is accepted as a theoretically correct definition of income.At least for most of the people it has been regarded as conceptually the most sound one among other definitions of income .

As we see, Hicks defined income for a man, and took a week as a period for which the income is to be measured. But the main idea is the maximum amount that can be consumed and still expecting to be as well off at the end of the period as at the beginning. Hence there is no harm to extend the period up to a year and apply the same concept to business enterprises . In case of business enterprises,the maximum amount that can be consumed may be regarded as the maximum amount of dividends that can be distributed .

At the first glance, definition of income in terms of the maximum amount that can be consumed and still expecting to be as well off as at the beginning of the period seems to be a perfect and unambigious concept of income. However a critical evaluation of this definition may be useful to bring some drawbacks of such a concept to our attention .

1. J.R.Hicks , <u>op.cit</u>.,p.172,176 .

First of all, purpose of income calculations in practical affairs may not be only to give people an indication of the amount which they can consume without impoverishing themselves. Proper consumption decisions may not be a good and the only criterion for income determination. In other words, income determined based on the criterion of proper consumption decisions may not be considered properly determined when we take into consideration some other criteria which may be taken into account in income determination. For example income may be a base for decisions concerning production, investment, saving, for determination of the tax base, or for some other purposes.

On the other hand, consumption may not be only a function of income . There may be some other factors which affect consumption. For example, let us think of a case where by government action all the banks closed their windows. In such a case , there may be an earned and realized income though it is not available for consumption. Income realization and consumption may be two different things. You may earn and realize an income but cannot consume it due to some external reasons. Or , I may be able to consume my earned and realized income on some group of goods and services but not on some others, due to some reasons beyond my control .

Another limitation of Hicks' definition of income is an unclear definition of the basic concepts, such as, 'consumption', and, 'being as well off' , which makes his definition ambigious. What is meant by consumption is not clear cut. Can we consider it as consumption for a very stingy person to keep his money idle in an earthenware jar is a question which we can not give a definite answer. What is meant by being as well off is not defined either. Due to changes in my philosophy about life I may be as well off at the end of this period, with a

500 TL as much as I was with a 1000 TL at the beginning of the period. Let us exaggerate a little bit and say I suddenly became a man like Diyojen. I may now be at least as much and most probably more well off with just a barrel and a cup for drinking water, although my income declined drastically when compared to the beginning of the period. Or I may be as well of due to some other reasons which has nothing to do with income .Suppose I found gold in my garden. This is a windfall gain and may be considered an addition to capital rather than to income. Income is a flow concept where as capital is a stock. The effect of the ordinary expected income and such a windfall gain may be and most probably going to be different on consumption .

In Hicks' definition we do not see any distinction between the income expected and controllable on the part of the income subject and unexpected and uncontrollable so called windfall gains (or losses) . The effects of these distinct causes of changes in the well being of income subject may be different on consumption decisions. For example let us assume the following two cases.

1. A 500 TL income , a result of the ordinary operations of the income subject.
2. An unexpected 500 TL windfall gain .

We can consume 500 TL in each case and expect to be as well off as we were at the beginning of the period.However, the effect of the two may be different on my consumptions during the period.In the first case since I was expecting the 500 TL at the beginning of the period I had the opportunity to make my consumption decisions accordingly , whereas in the second case there was no such expectation .

Now we shall assume a case where the income subject obtained a 500 TL as a result of the ordinary operations of its activity ,and a windfall loss of 500 TL simultaneously,at the end of a period. According to Hicks' definition, income for this period is zero, or the maximum amount I can consume and still expect to be as well of as I was at the beginning of the period is zero.However one can argue that the windfall loss may be directly charged to the capital account. A windfall loss is a random event.It may never happen again in the future , and most probably it shall never happen again in the future. İf it happens regularly and usually then it should have been expected and not labelled as a windfall loss.So, by definition a windfall loss is an unexpected,random and unusual event. Therefore, I may not take it into consideration in my consumption decisions.It may be better to charge it directly to the capital account, and base my consumption decisions on the amount I obtained as a result of the ordinary operations of the entity.

Ofcourse a windfall loss may also affect my consumption decisions.However, we can safely say that the effect on consumption decision of an expected and unexpected event shall be essentially different due to the facts that, first of all in case of an expected event we have a rather priliminary information and thus the opportunity to make better consumption decisions, and secondly, an unexpected event is by definition unusual and random thus its effect on consumption may be different than that of a regular and usual event .

Keynes emphasise the distinction between income from ordinary course of operations and windfall gains and windfall losses. However,Hicks does not make such a distinction. Hicks defines income as a function of consumption.Keynes on the other hand defines income as a function of several variables such as consumption, production, user cost, and supplementary cost .

The theoretical distinction between income and windfall gains and windfall losses, their effect on the income and capital accounts, are not taken into consideration in practice. Turkish tax laws in general does not make any distinction between income from ordinary course of operations, and capital gains or irregular income, in the determination of the commercial income of business enterprises. In case a business enterprise is faced with a windfall loss due to unexpected catastrophes , such as fire, earthquakes, flood or due to technological innovations , extraordinary depreciation rates determined by the Ministry of Finance can be applied,(Art.317 of Turkish Tax Procedure Law) . However, such extraordinary depreciation expenses are charged against the income of the current period rather than being directly charged against the capital account.

CHAPTER III

INCOME DETERMINATION THROUGH DOUBLE ENTRY BOOKKEEPING SYSTEM ACCORDING TO THE PROVISIONS OF TURKISH TAX LAWS

> Both the statutory and court definitions of income are very broad, inluding "gains or profits and income derived from any source whatsoever" and "growing out of the ownership or use of or interest in ....property."
>
> — Dan Throop Smith, J.Keith Butters, Taxable and Business Income (New: York: National Bureau of Economic Research, Inc., 1949), p.20.

Up to now we have not dealt with the double entry bookkeeping system, and we were mainly concerned with a general understanding of the basic nature of the concept of income. We tried to make a distinction between those events which should affect the current income and those events which should be charged directly to the capital account.

In this chapter, we shall briefly explain the double entry bookkeeping method of income determination within the boundaries of the legal provisions of the Turkish tax laws. We shall see that in the balance sheet method of income determination (bilanço esasına göre ticari kazancın tesbiti), asset valuation is an essential part of income determination.

In Turkey, accounting systems that must be used by business entities are specified by Turkish Tax Procedure Law (referred as TTPL hereafter). There are two such systems that can be employed for income determination. According to Art.176 of TTPL first class merchants employ the balance sheet method of bookkeeping and the second class merchants employ the business account base (işletme hesabı esası) of bookkeeping.

The following merchants are considered as the first class merchants,(Art.177,TTPL) .

1. Those who sell the goods which they purchase with or without further processing and annual purchases of whom exceed 400,000 TL or annual sales of whom exceed 440,000 TL.
2. Those who are engaged in activities other than stated in (1) above but whose annual gross profit exceed 80000 TL.
3. For those who are engaged in the activities stated in (1) and (2) in connection, whose annual sales plus five times the revenue from the activities written in (2) exceed 400000 TL.
4. All kinds of business associations,(ticaret şirketleri) .
5. Other legal personalities which are subject to corporation tax .
6. Those who voluntarily choose the balance sheet base of bookkeeping.

All the other merchants except those stated in Art.177 of TTPL are considered to be second class merchants and use the business account base of bookkeeping.

Through out this paper we shall be mainly interested in income determination under the balance sheet method of bookkeeping. However, before explaining the details of this method we shall briefly look at the business account base of income determination employed by second class merchants .

Business account base of income determination

This is a rather simple and primitive way of income determination allowed to be used by second class merchants, private professionals (serbest meslek erbabı), and by farmers whose annual revenue is between 150,000 TL and 500,000 TL . Most probably the purpose of allowing such a method for income determination is its simplicity and practicality to be used by those who are not familiar with double entry bookkeeping system or by those who are not in a position to hire professional accountants. A single and simple book is kept to record all the information necessary for income determination.Left hand side of the business account is devoted to expenses and right hand side is devoted to revenues. All the money paid or payable in return for goods or services received and all the expenses related with the business are recorded at the expense side of the business account. Expenses are recognized in the period in which they are actually paid,(Council of State , 4.D.,23.3.1966 T.,E.1963/33,K.66/1464).[1] All the money and receivables obtained in return for goods sold or services provided and all the other revenues obtained as a result of the business operations are recorded at the revenue (hasılat) side of the business account, (Art.39 of Turkish Income Tax Law) .

Those assets which are subject to depreciation cannot be recorded in the business account book. However annual depreciation expense (in conformity with Art.189 of TTPL) can be recorded as expense, (Art.194 of TTPL) .

1. Necmettin Eroğlu ; Amortisman ve Tatbikatı , Yeni Matbaa, Istanbul,1967 , p.72 .

Those who are involved in inventories due to the nature of operations are required to keep a seperate set of records for the inventories.

Those who keep business account books are required to make a summary of the business account at the end of the period in-order to determine the income subject to tax. This summary is composed of two parts, (Art.39 of Turkish Income Tax Law referred as TITL hereafter) . The following items enter the '~~Revenue~~ Expense Table' .

1. The amount of inventories at the beginning of the period,
2. Value of the inventories purchased during the period plus all the expenses related to the business.

The following items enter the '~~Expense~~ Revenue Table' .

1. Value of the goods sold or services provided and all the money received in some other means, (related to the activity of the business),
2. Value of the inventories at the end of the period .

The difference between the total of the Revenue Table and the total of the Expense Table, gives us the net commercial income subject to tax .

Balance sheet method of income determination

In the balance sheet method of bookkeeping which is also called double entry bookkeeping, first class merchants are required to keep at least three books, namely, the journal (yevmiye defteri), the ledger (defter-i kebir), and the inventory book (envanter defteri) .

All the transactions which are required to be recorded are written in the journal according to dates of occurence.Then, these entries are posted to the ledger and classified under the corresponding accounts. At the time of starting business and at the end of each of the following periods, inventories are determined and they are recorded with the balance sheets into the inventory book and that date is called the balance sheet date. To determine the inventories (envanter çıkarmak) is defined in Art.186 of TTPL as to count, measure, weigh, and value the assets and liabilities and determine them in an accurate manner on the balance sheet date. However, if it is not customery to weigh, count or measure some goods according to commercial usage, then their value is determined according to estimation .In case of partnerships which have legal personality, assets of the enterprise are the movable and immovable properties, rights and values. In case of the business of a real person those immovables as factories, warehouses, workshops, storehouses and land are included among inventories whether they are used fully or partially, (Art.187 of TTPL) .

Now let us see how income is calculated according to the balance sheet method. Balance sheet is a systematic classification and summary of the values shown in the inventory book .Balance sheet is composed of two parts ; the left hand side is called the actives (aktifler), and the right hand side is called passives (pasifler) . Actives include the assets , capitalized expenses and the loss if any.[1] Passives on the other side include the liabilities, capital, retained earnings (or owner's current account), and reserves for some contingincies if any . The difference between the actives and the liabilities gives us the net worth (özsermaye). The difference between the net worth at the beginning of the period and net worth at the end of the period gives us the income of the period. However, inorder to find the tax base certain deductions and additions should be made to the above income figure. Additions to capital during the period are deducted and amount withdrawn from the capital during the period are added to the income figure,(Art.38 of TITL) .Those expenses which are not legally tax deductable are added and those income which are legally tax exempt are deducted from this income figure, inorder to find the tax base .

We said that, inorder to find the net worth ,we deduct total liabilities from total actives. However some items classified under the heading actives are deducted from the total actives inorder to find the so called actual actives and some items classified under the heading liabilities are deducted from total liabilities before finding the difference between the two as the net worth .[2] The items that are deducted and

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1. Kenan Bulutoğlu ; Türk Vergi Sistemi , Çağlayan Kitabevi, Beyoğlu, İstanbul,1966 ; 2.Yayım,1967 , p.245 .

2. Ibid , p.246 .

the explanation behind them is explained below.[1]

1. Allowances

a) Allowance for depreciation

As we know there are two methods of showing Allw. for Deprc. on the balance sheet. One method is to deduct it (on the left hand side of the balance sheet) from the fixed assets and show the fixed assets at their net amount as follows.

Fixed Asset	100	TL
Less:Allw.for Dep.	40	
Fixed Asset(Net)	60	TL

If this procedure is followed there is no problem. However in the Turkish practice fixed assets are shown at their gross value on the left hand side, and the Allw. for Deprc. is shown as a seperate item on the passives side of the balance sheet.In such a case ,Allw. for Dep. is deducted from total assets inorder to find the actual total assets and it is also deducted from total liabilities inorder to find the actual liabilities of the firm.

b) Allowance for bad debts

The problem is very similar to that of AllW.for Deprc. In the Turkish practice Allw.for Bad Debts is shown as a seperate item in the passives section. Therefore it is deducted from total assets inorder to find the actual assets and deducted from the liabilities inorder to find the actual liabilities of the firm .

2. Capitalized expenses

a) Organization expenses

If the expenses incurred at the time of organization of the firm has been capitalized and classified under the actives category then they are deducted from the total assets (based on the argument that they do not

1.See, Kenan Bulutoğlu, op.cit.,pp.246,247 .

represent a real value for the firm), inorder to find the actual assets.Allw. for Org.ExP. on the other side is deducted from total liabilities inorder to find actual liabilities of the firm .

b) Bond discounts

In case bonds are issued under the nominal (face) value, the difference between the proceeds of bond sale and the nominal value may be capitalized and expensed in the later years. The difference between the actual amount received and the nominal value thus capitalized is deducted from the total assets.The argument is ,such an amount shown on the actives section does not represent a real value for the firm. The corresponding Allw. account on the passives side,if any, is deducted from total liabilities, inorder to find the actual liabilities .

3. Losses of the previous years

There are two ways to present the losses of the firm in the balance sheet.One way is to charge it directly to the Retained Earnings account and show Retained Earnings at the net amount.In the Turkish practice losses are shown on the actives section.In case the losses of the previous years are capitalized on the actives section they are deducted from the total actives inorder to find the actual total assets.

4. Unpaid capital of corporations

According to Turkish Commercial Code some part of the capital of the corporations are required to be actually paid and the other part is required only to be promised to be paid.In the passives section of the balance sheet, amount of capital paid in and the amount promised to be paid in are shown totally.The amount not paid in yet but promised to be paid in the future is shown in the actives section. This amount is also deducted from the total actives in order to find the actual assets of the firm .

After the deductions from the total assets and total liabilities are made as explained above, the so called actual total actives (gerçek aktifler) and the actual total liabilities (gerçek pasifler) figures are arrived. The difference between the actual actives and the actual liabilities gives us the net worth (özsermaye or özvarlık) . The difference between the net worth at the beginning of the period and the net worth at the end of the period gives us the income of the period . In order to find the tax base, we should add to the income figure thus arrived the amounts withdrawn from the business by the owners and subtract the amounts contributed by the owners to the business , during the period. Also, we should add the expenses which are legally tax deductable such as excess depreciation expense, expenses without bills or documents and donations in excess of a certain amount ; and subtract those income which are legally exempted from the tax, (Art.38 of TITL) . The figure we thus arrive is the base on which the tax is going to be applied .

As we see income determination according to the balance sheet method is directly based on asset valuation. Therefore, it is essential to know how the assets in the balance sheets are valued according to the provisions of the Turkish tax laws. In chapter IV , we shall see several methods of valuation for different kinds of assets and liabilities as prescribed in the Turkish Tax Procedure Law. In chapter V, we shall critically evaluate those valuation techniques, and in chapter VI we shall try to describe a theoretically correct method of asset valuation and income determination. We shall, thus, compare the legal way of income determination with which we may call a theoretically correct method of income determination .

CHAPTER IV

VALUATION OF ASSETS AND LIABILITIES ACCORDING TO THE PROVISIONS OF TURKISH TAX PROCEDURE LAW

> To arrive at net worth, we deduct the taxpayer's liabilities from the value of his assets. But what is value? Well, there are different types of value.
>
> — William L. Raby, The Income Tax and Business Decisions (Englewood Cliffs N.J.: Prentice-Hall, Inc., 1964), p.13.

In the last chapter, we have seen that income determination according to the balance sheet method within the provisions of the tax laws was essentially based on the valuation of assets and liabilities. In this chapter, we shall see several valuation methods for different assets and liabilities prescribed in the tax procedure law, which constitute a base for the calculation of the taxable income.

According to tax procedure law valuation is, determination of the values of those assets and liabilities which are relevant in the calculation of the tax base. The relevant time for valuation is the particular days specified in the tax laws. In case of income tax and corporation tax relevant day for valuation is the balance sheet day which was defined in the last chapter.

Valuation should be done for each of the assets and liabilities seperately. However, those goods which according to the commercial usage are considered to be of the same kind, can be valued as an aggregate. Similarly , those goods which are of little value can be valued totally.

Valuation should be done by one of the following methods, according to the nature of the specific asset or liability .

1. Cost basis (Maliyet bedeli)
2. Market value (Borsa rayici)
3. Possession value (Tasarruf değeri)
4. Book value (Mukayyet değer)
5. Nominal value (İtibari değer)
6. Tax value (Vergi değeri)
7. Inferred value (Emsal bedeli ve ücreti)

Cost is the total amount paid or expenses incurred directly or indirectly to acquire or to increase the value of an asset. There may be some difficulty in determining the indirect expenses incurred to acquire the asset. In one case, Council of State decided that the interest expense incurred for a loan used to construct a building and to install the machines should be considered as an indirect expense and added to the cost.[1] It is interesting to see that when a loan is used to finance the construction of a building interest expense incurred for the loan is included in the cost, however, when the constructer uses his own funds during the construction, implicit interest expense is not allowed to be added to the cost. From a theoretical point of view it is inconsistent to include interest expense in the cost when the construction is financed with a debt and not to include the implicit interest expense in the cost when the construction is financed with the funds of the owner .

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1. Council of State; 4.Daire, E.60/5602,K.65/1591 ,30.4.1965 , as quoted in Kenan Bulutoğlu,op.cit.,p.202 .

Market value is the average value on the day before the valuation day, of the securities quoted in the money market and the capital market and of the goods quoted in the commercial markets.In case the prices fluctuate in an irregular fashion Ministry of Finance may permit to use the average price for the last 30 days,instead .

Possession value is the real value an asset (or a liability) possess for its owner. It is generally used in case of notes receivables and notes payables present value of which can be rather easily determined .

Book value is the value written in the accounting records of the firm .

Nominal value is the value written on the face of any kind of promisory notes, stocks and bonds .

Inferred value is the sale value of similar goods at the valuation day for those goods real value of which cannot be determined.Inferred value is determined according to the following three basis respectively .
Average price base : Asset is valued according to the average sales price of the similar goods of similar quality,for the last month or preceeding months.This price is calculated by the tax payer,but he should reserve the necessary documents of verification .
Cost basis : If the cost is known ,5% incase of wholesales and 10% in case of retail sales,of the cost is added to the cost inorder to find the inferred value.
Appreciation base : In this case inferred value is determined by authorized tax commissions.[1] Where wages of the workers

1.See,the following decision of,Council of State,4.D.13.2.1964T E.1960/2459,K.1964/829,as quoted in N.Eroğlu,op.cit.,p.58 .

employed in manufacturing cannot be determined accurately , the same methods described above should be used respectively in the same order. If prices of some assets are determined officially by government agencies then these values should be used regardless of the methods defined above. Similarly judicial courts can determine values of some assets under specific conditions regardless of the above methods .

Tax value specifically refers to the written value for land and in case of buildings it is equal to ten times of the annual net income of the building which is determined according to the provisions of the building tax law .

Now let us see which of the valuation methods described above are used for different assets and liabilities .

I m m o v a b l e s

The term immovables is used for a wide variety of assets. The term refers basicly to two categories of assets. In the first category we have the immovable physical assets,machines,ships, all kind of vehicles and their component parts and accessories. In the second category we have the non-physical assets such as patents, licences, copyrights, franchises and trademarks. All the immovables whether in the first or second category should be valued on the cost basis .

In addition to the purchasing cost the following expenses are included in the cost of immovables .

1. In case of machinery, custom duties, transportation and installation costs.
2. In case of land purchased with a building on it, cost of removing the old building.
3. All kinds of charges and duties and commissions related to

the acquisition can either be added to cost or can be expensed in the current period .

In case buildings or ships are constructed rather than being purchased, total construction cost is viewed as the aggregate acquisition cost.All the expenses, incurred to increase the economic value of the assets other than the normal maintenance and repair expenses can be added to the cost.All the tools , instruments, fixtures and furnitures are similarly valued at cost.However if the cost of a particular tool or instrument or goodwill is less than 1000 TL than it can be expensed totally in the current period,(Art.40,TITL)

I n v e n t o r i e s

Inventories are valued on the cost basis.In case where inventories are purchased they are valued at the acquisition cost. If inventories are manufactured the following factors should be included in cost .

1. Cost of the raw materials used in manufacturing ,
2. Labor expense incurred during production,
3. That part of the indirect manufacturing costs corresponding to the goods produced,
4. That part of the general administrative expenses corresponding to the goods produced ,
5. Cost of the goods used in packaging.

As long as the above factors are included tax-payer may employ any accounting or cost accounting system for the calculation of the cost.Law does not specify any base for overhead allocation or any method to be used such as LIFO,FIFO or weighted average in inventory valuation . If however the sales value of inventories is less than the cost, and if the difference is more than 10% with respect to cost then inferred value may be used instead of cost . This is an application of the conservatism convention in general, and the cost or market whichever is lower rule specifically . For the enterprises recently established or those capital of which are less than 200,000 TL simpler ways of inventory valuation may be employed based on the normal sales prices and the normal profit margins .

Agricultural products are valued at cost within the principles laid down by the Ministry of Finance. Animals are also valued at cost.Where it is impossible to determine the cost of animals, cost values determined by the agricultural income comissions in that region are used .

Those inventories which lose their value considerably due to fire,flood, earthquake,decay, obsolescence, detoriation etc and those scrap for which it is not customery to calculate the cost, are valued on the inferred value basis. Such valuation should be done by independent comissions of experts who have official status.[1]

<u>Cash , stock shares, and bonds</u>

Cash should be valued at its nominal value.Actual amount of money rather than the balance of the cash account is relevant. Foreign currencies, accounts and notes receivables and payables in terms of foreign currencies are valued at their market value.If there is no market value,the rate to be applied for valuation is determined by the Ministry of Finance .All the Turkish and foreign stocks and bonds should be valued at the

1. See the following decision of the ,Council of State , 4.Daire, E. 62/3624, K.65/947, 17.3.1965 , as quoted in Kenan Bulutoğlu, op.cit.,p.213 .

purchasing cost,(Art. 6 of Law No. 485) . Hence an increase in the market value of such securities shall be subject to tax only if they are sold and if an increase in market value is realized in cash .

Receivables

Receivables are valued at their book value. Notes receivables not due yet can be shown at their present value.Discount rate to be used is the rate specified on the note if any, or the official discount rate of the Central Bank .Banks and insurance companies have to use the present value method.

Receivables are classified under three categories, namely , the normal receivables which are expected to be collected, doubtful receivables and worthless receivables. Those receivables which are expected as uncollectible by court decision or verified by persuasive documents are considered to be worthless receivables. They can be recorded as a loss for their book value.[1] Those who use the business account base can charge such receivables directly to the expense section of the business account.

Those receivables which have the following characteristics are considered to be doubtful receivables .

1. Those receivables for which a judicial court is involved to decide .
2. Those notes receivables which are not collected though the due date has been extended three times .

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1. See the following decisions of the Council of State ;
Council of State, 4.D. 22.6.1961 T.,E 1959/3535,K.1961/1768
Council od State,4.D.,9.1.1963 T.,E.1961/3197,K.1963/42
Council of State,4.D.,8.11.1965 T.,E.1961/1157,K.1965/3836
as quoted in, Necmettin Eroğlu,op.cit.,pp.53,55,71 .

3. Those accounts receivables which are not collected despite the protest or written notice of more than once.
4. That part of the accounts receivables which can be calculated by applying the average doubtful accounts to total accounts receivables ratio of the last two years to the receivables of the current year . An allowance account determined by the firm subjectively for the value such receivables possess for the firm can be used in the passives section for such doubtful receivables . As the doubtful accounts are collected the allowance account should be reduced accordingly .

Normal collectable accounts and notes receivables exclude doubtful accounts and worthless receivables .

Organization expenses, research and development expenses and goodwill

Organization expenses may be expensed in the period they are incurred or they can be capitalized to be expensed equally in the following five years. In such a case they should be recorded at their book value. This value cannot be more than the expenses actually incurred. Research and development expenses should be capitalized and amortized in the following years.[1] Goodwill expenses should be capitalized and shown at their book value, which is the acquisition value in this case .

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1. Council of State, 4.D.,E.56/6390,K.58/1983,25.5.1958 , as quoted in Kenan Bulutoğlu,op.cit.,p.207 .

Prepaid expenses

Prepaid expenses should be capitalized and shown at their book value. In agricultural enterprises, those expenses incurred for the agricultural products which has not been harvested yet should also be capitalized and shown at their book value .

Liabilities

In general liabilities should be shown at their book value . However, notes payables not due yet can be shown at their present value. Discount rate to be used is the rate specified on the note if any or the official discount rate of the Central bank. Banks and Insurance companies should employ the present value method. On the other hand bonds issued by joint stock companies and by State Economic Enterprises should be valued at their nominal value. Issuing costs should be expensed in the current period. Issuing costs in relation to shares of stock and bonds issued cannot be capitalized and they can not be subject to amortization.They are directly charged as a loss of the current period .[1] However, the difference between the nominal value and the actual proceeds obtained, if any, may be capitalized according to Article 464 of Turkish Commercial Code .

Advances received by the firm which are related to future periods should be shown on the liabilities section at their book value .

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1. Şahabettin Acar,Maliye Bakanlığı Baş Hesap Uzmanı , Tatbikatta Vergi ve Muhasebe Problemleri , Hamle Matbaası, İstanbul,1967 , p.96 .

Payables which have been cancelled willfully by the creditors can be matched with the losses to be incurred in the following three years. If there has not been enough losses to exhaust such payables then they are considered as a profit and included in the tax base of the third year .

Provisions for possible losses

Provisions or reserves segregated for possible contingincies should be valued at their book value .

For those assets or liabilities which has not been specifically referred in the valuation section of the tax procedure law , buildings and land should be valued according to their tax value and others should be valued according to their market value ; if there is no market value, according to their book value and if there is no book value then they should be valued on the inferred value basis .

CHAPTER V

EVALUATION OF THE LEGAL METHODS OF VALUATION FOR ASSETS AND LIABILITIES FROM AN ACCOUNTING THEORY POINT OF VIEW

> .... and if the balance sheet figures are irrelevant past costs ,it follows that the resulting figure of net income must be equally irrelevant.
>
> — Howard I.Ross,"The Crucial Importance of Valuation in Accounting", The Accounting Sampler, ed.Thomas J. Burns and Harvey S.Hendrickson (New York: MacGraw-Hill Book Co.,1967), p.112.

Subject matter of this paper is a comparative study of the legal and accounting concepts of income.However, when we say the accounting concept of income we don't mean the accounting methods and procedures followed in practice.In practice,the primary function of accounting is the determination of the taxable income.Therefore practical methods of accounting employed for external reporting purposes are necessarily bounded by the legal provisions of the tax laws.Accordingly, accounting concept of income employed for external reporting purposes and for determination of the tax base should be necessarily in conformity with the legal concept of income,that is, basicly,accounting concept of income in practice may not be contrary or different than the legal concept of income.Therefore, a comparison of the two would mean little since basicly they cannot be contrary to each other.When we say a comparative study of the legal and accounting concept of income, we rather mean an evaluation of the legal methods and procedures of income determination from an accounting theory point of view.We shall thus compare what we may call theoretically correct concepts of accounting with the legal concepts prescribed in the tax laws, as far as income determination is concerned.

In the last chapter ,we have seen the valuation of several assets and liabilities prescribed in the tax procedure law, which constitute a base for income determination.Now, let us critically evaluate these valuation methods.

First of all we better define the term value.Value is a rather subjective concept,based on the circumstances prevailing.That is to say, value of an asset may be different for different people, at different times,in different places and under different circumstances. Value of a bottle of rakı may be different for a drinker and for an imam .Value of an anti-aircraft is different in peace and war.Value of a camel is different in the desert and in Istanbul .

Hence,value of an asset depends on the potential satisfaction or utility we can derive from an asset. Accordingly value of an asset is usually different for the buyer and the seller . Otherwise,there would be little reason,if any, to enter into a market transaction. This is an important point and we shall turn back to it in the next chapter .

In the tax procedure law,one of the methods of valuation was the possession value (tasarruf değeri) method.Possession value is the actual value an asset possess for its owner at the present time. For example, what is the value for a note receivable of 100 TL due in two years ? Is it 100 TL ? Obviously not . It will worth 100 TL only two years later.A note receivable has some value to us only if we can convert it into cash and only for the amount we can realize in cash. Suppose market rate of discount for such notes is 6% . Actual value that note receivable possess for us now (at the balance sheet date), is the present value of 100 TL discounted for two years at 6 % . This kind of valuation is allowed for notes receivables according to Art.281 of TTPL . Exactly the same logic can be safely applied to the valuation of accounts receivables without much difficulty. According to our tax procedure law, accounts receivables can be shown net of doubtful and worthless accounts . Normal collectable account receivables of 100 TL to be collected one year hence does not possess the same value now .To show it at its present value using the market rate of interest or the official discount rate of the Central Bank would not be practically so difficult though it would be a theoretically correct method of valuation .

Let us extend the present value concept further. For example according to Art. 268 and Art.289 of tax procedure law ,tax value of a building is equal to 10 times of the annual net income of the building determined according to the Building Tax Law . There is no theoretical or logical justification for this kind of valuation for buildings, whatsoever .On the one hand, law prescribes a remarkably well and theoretically sound base for valuation, that is, the annual net income of the building .But on the other hand ,this amount is multiplied by 10 inorder to find the tax value, which is completely arbitrary in the full sense of the word .Since we know and allowed to use the annual net income to find the value of a building , we may follow the present value method which is theoretically a much superior approach and which brings no additional practical difficulty .Why the building possess a value for us ? Either because of the potential revenues or potential savings it enables us to realize in the future, as a consequence of owning the building now . Therefore , value of the building for the owner now is actually the present value of the future net incomes (or savings) . Since we have to use the annual net income determined according to the Bldg.Tax Law as a base to find the tax value, a theoretically sound approach would be to find the present value of the future net incomes using the market rate of interest as the discount factor.Such a procedure would not arise much difficulty since the annual net incomes have already been determined . Ofcourse determination of the market rate of discount and the estimated useful life may arise some practical problems, but in any case a present value approach would be much less arbitrary than just multiplying the annual net income by 10 ; and it reserves its conceptual soundness. The discussion for buildings may also be applied to other fixed assets;(we shall discuss the problems of replacement and joint value,in the next chapter) .

According to Art.279 of TTPL amended by Art.6 of Law No.485 , Turkish and foreign stocks and bonds should be valued at cost . Generally there are three methods of valuation for marketable securities,namely, the cost basis, market value, and the present value. Valuation of marketable securities and taxation of capital gains shall be discussed in chapter 10. Here we shall only point out that value of a share of stock depends on its future dividend potential and not on the historical amount we have paid to acquire the share in the past .

According to Art.274 and Art.275 of TTPL inventories are valued at cost.If they are purchased then cost is the amount incurred for acquisition.If inventories are manufactured, then cost includes, direct labor, direct material and overhead. However , if the sales price in the market is less than the cost and if the difference is more than 10% with respect to cost,then, market price may be used instead of cost . This is an application of the cost or market whichever is lower rule.Justification behind it is the conservatism convention. However, such a procedure is inherently inconsistent.When the market price fall below cost, inventories are permitted to be shown at market value, but when market price rise above cost, inventories are not permitted to be shown at market value .

Cost basis, market replacement value, market sales value, future market replacement value, avoidable costing are several possible methods of valuation for inventories .There are arguments for and against each of these methods. Inventories do have some value for the firm because they are going to be used in revenue generation. Historical cost does not reflect the revenue generation potential of inventories. Replacement cost is definitely a better approach when compared with historical cost basis . A company is a going concern ,operations are generally assumed to continue indefinitely . Thus inventories should be continiously replaced as they are used up. However ,if the inventories are going to be replaced in future, future replacement cost becomes the relevant factor . Avoidable costing is a refinement over the future replacement costing . Avoidable cost is the variable and/or fixed costs avoided in the future by having the inventories now . A theoretically better approach is to value inventories at present value of their future revenue generation potential, which we shall discuss in the next chapter .

There are no legal provisions as to which of the LIFO, FIFO, or weighed average methods to be used for inventory valuation . Different firms may apply any one of FIFO, LIFO or weighted average methods according to the nature of their business . However, it would be better if the law required firms to be consistent once they have choosen one of the above methods , and required persuasive justification inorder to shift from one method to another .

According to Art.285 of TTPL, liabilities in general are valued at the amounts shown in the accounting records . However , notes payables can be shown at their present value using the discount rate specified on the note, or using the official discount rate of the Central Bank . On the other hand, Art.286 of TTPL states that bonds payables issued by joint stock companies and State Economic Enterprises should be valued at their nominal value. For one thing, it is inconsistent to allow notes receivables to be shown at their present value and not to allow such a procedure for bonds payables .Notes payables and bond payables are essentially not different other than the maturity date being longer in case of bonds. A bond of 100 TL payable in 20 years time bearing 6 % interest obviously does not necessarily represent a liability of 100 TL now. Nominal value does not necessarily represent the actual amount of liability on the balance sheet date .

A conceptually sound method of valuation would be to show bonds payables and the interest payables at their present value . Besides its theoretical superiority, such a procedure would not generate practical difficulties . The same argument applies for accounts payables .

CHAPTER VI

A THEORETICAL APPROACH TO ASSET VALUATION

> It would be unfortunate if the difficulties of measuring asset values under uncertaininty resulted in an abondonment of the attempt to measure those values in a meaningful manner.
>
> — Harold Bierman Jr., Financial Accounting Theory (New York: The MacMillan Company, 1965), p.66

In chapter three we have seen that according to Turkish Tax Laws, income determination is directly based on asset valuation. In this chapter, we shall briefly describe a theoretically correct method of asset valuation which leads us to a theoretically correct income figure.[1] Thus, we shall be able to compare income determination prescribed by the Turkish Tax Laws and used in practice with a theoretically correct method of income determination developed in the context of accounting theory .

Why an asset possess a value for its owner? Assets do have some value because of their potential to secure some benefit for their owners in the future. Therefore a correct method of valuation of assets would be to value them at the present value of the future benefits they would provide for their owners .

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1. This method is developed by Prof.Dr.Özer Ertuna very recently ; İbrahim Özer Ertuna, "Aktif Değerlendirmesi ve Amortisman" (unpublished Doçentlik dissertation, İstanbul İktisadi ve Ticari İlimler Akademisi, 1969)

We can draw a parallel with this theory of asset valuation and Art.264 of Turkish Tax Procedure Law. According to Art. 264 of TTPL, possession value (tasarruf değeri), is the real value an asset possess for its owner at the time of valuation.

We have already mentioned in the last chapter that value is a subjective concept.Thus value of a particular asset may be different for different persons or entities. Specifically , value of a particular asset may be different for the buyer and seller. Otherwise there would be little reason if any for a market transaction to take place.

An asset should be valued from the point of view of the owner. When we purchase an asset we should record the value that asset represent to us. This value may be and usually is different than the market value. When another person, say,Mr.X purchase an exactly similar asset he should record the same asset at a value that asset represents for him. Accordingly, if the value of a particular asset is different for us and for Mr.X, theoretically we should record this asset at different values in our books. Therefore we can safely say that,theoretically possession value as described in Art.264 of TTPL would be a correct base of valuation for all assets. That is to say all assets should be valued at an amount which represent their real value, at the time of valuation for their owners.

Unfortunately, according to Turkish Tax Procedure Law, only notes receivables can be shown at their possession value . Possession value is determined by finding the present value of future cash receipts using a specified rate for discounting or by the discount rate of the Central Bank .

We said that value of an asset is most probably different for the buyer and the seller, and they should be shown in the books of the buyer and seller accordingly. For example when we purchase a machine for 80 TL ,in practice (according to the provisions of the tax laws), we record it as follows .

Machine .... 80 TL
    Cash ....80 TL

Value of the machine for the seller should have been something less than 80 TL (let us assume 70 TL) ; otherwise he would not sell the machine. Thus in his books the seller may record the transaction as follows .

Cash .... 80 TL
    Machine .... 70 TL
    Income .... 10 TL

On the other hand, value of the machine for us is expected to be something more than 80 TL ; otherwise we should have not purchased the machine. Why the machine possess a value for us? Does the machine possess a value for us because we have paid 80 TL to acquire it ? Obviously no .Machine has some value for us because we expect to get some future benefits from it. Therefore, value of this machine for us should not be measured by the amount we paid to acquire it. Rather,value of the machine should be shown at the present value of the benefits we expect to derive out of this machine in the future .

But there is one point we did not take into consideration up to now .Is this machine going to generate revenues in the future by itself exclusive of other assets ? Most probably not. We need building, labor, raw materials,etc. inorder to utilize the machine.Thus machine does not generate revenue by itself .

It generates revenue when used in connection with many other assets. Many assets are used cooperatively or jointly to generate revenue. Therefore, we have a joint value in connection with the acquisition of the machine.This joint value depends on the future unrealized benefits which are expected to be realized in the future. Therefore in connection with the joint value we have an unrealized income depending on the life of the asset.

Operating assets usually have finite lifes.Hence, they are going to be replaced.When they are going to be replaced depends on depreciation, obsolescence, and opportunities in the market. We shall discuss these problems in a following chapter. For the time being we shall assume that we purchased a machine for 80 TL , which result in net cash savings of 100 TL per year , and which should be replaced every year .

Expected future cash flows
(end of years)

0	1	2	3	and so on
-80	100	100	100	
	-80	-80	-80	

How shall we record the purchase of this machine ? According to Art.269 of TTPL we should record as follows .

Machine .... 80 TL
Cash .... 80 TL

According to the legal provisions, machine is shown at a value which is equal to the value of 80 TL. But is the real possession value of this machine 80 TL to the purchaser ? Obviously no . This mach. has a value for the purchaser because it results in a net cash saving of 100 TL. Ofcourse,this net cash saving of 100 TL results from use of the machine jointly with some other assets. Let us assume that, the appropriate rate of discount is 10 %. Present value of 100 TL discounted for one year at 10% is 90.91 TL. Thus, net present value of the machine is 90.91 - 80 : 10.91 TL . However this value is not generated solely by the machine itself but jointly by the machine and some other assets. Therefore it is a joint value. On the other hand it represents an unrealized income of 10.91 TL which is expected to be realized in the future. Accordingly, we can record the purchase of this machine as follows.

Machine .... 80 TL
Joint Value ...... 10.91 TL
    Cash .... 80 TL
    Unrealized Income .... 10.91 TL

But, what about the future replacements ? We said that we are going to replace the machine at the end of each of the following year until infinity. This assumption is in conformity with the going concern convention in accounting theory. Thus, we can find the future joint value and the future unrealized income.

(end of years)

0	1	2	3	and so on
-80	100	100	100	
	-80	-80	-80	

For the first year, cash flows are as follows if we do not replace the machine .

0	1
-80	100

Thus, Net Present Value : (100/1.10) - 80 : 10.91 TL

At the end of the first year, expected cash flows for the future years are as follows.

1	2	3	and so on
-80	100	100	
	-80	-80	

or ,

1	2	3	and so on
-80	20	20	

Net present value at the end of first year is ,

NPV : (20/.10) - 80 : 200 - 80 : 120 TL

But, since we record this transaction in period zero (i.e. end of period zero : beginning of period one), we discount back this 120 TL for one year at 10 % .

120/1.10 : 120 x .9091 : 109.09 TL

Accordingly we can make the following set of entries, which represent a complete and theoretically correct picture of the transaction .

Machine	80.00 TL	
Joint Value	10.91 TL	
Future Joint Value	109.09 TL	
Cash		80.00 TL
Unrealized Income		10.91 TL
Future Unrealized Income		109.09 TL

Up to now, we used a machine as an example.But, such an approach to asset valuation may be followed not only for machines but for all kinds of operating assets, depending on their future cash flows .

For those kinds of assets which do not require a joint use of other assets, we may use an "Excess Value" account rather than a "Joint Value" account. For example in case of marketable securities we may use an excess value account, to counterpart the unrealized income account. In that case since we do not have the problem of replacement, we do not use Future Joint Value and Future Unrealized Income accounts. Valuation of marketable securities and recognition of a change in the market price shall be discussed in chapter 10. Here we shall only mention that any change in the determinants of value (e.g. expected future cash flows, and/or time value of money), shall affect directly the Excess Value and Unrealized Income accounts in our books .

Up to now, we made some implicit assumptions. We assumed that we can forecast the cash flows with certainity.We assumed perfect capital markets, so there was no problem of determining the appropriate discount rate. We assumed the general price level to be constant. We assumed benefits and sacrifices are in terms of cash inflows and cash outflows, rather than for example in terms of payables or receivables. We also assumed that these cash flows occur at specific dates of the year.

Despite these limitations we were able to develop at least a conceptually sound and logically consistent framework. We said, at the beginning of this chapter, that this is a theoretical approach to asset valuation.Obviously, such a method cannot be employed for external reporting purposes.[1] For one thing ,

1.At the present stage of development of this theory, such a procedure has some practical limitations to be employed for external reporting purposes.However it would be the best method of accounting when employed for internal decision making purposes.It has many advantages over the conventional accounting for internal decision making purposes, but we shall our tax laws do not permit such a procedure. However, as far as the purpose of this thesis is concerned we use this theoretically correct and logically consistent framework to compare it with the methods and procedures employed in practice as prescribed in the tax laws , although it is based on some assumptions.

In this chapter, we used an asset which has a life of one year as an example. Hence, there was no problem of depreciation. In the next chapter we shall discuss the problem of depreciation from a legal point of view. In a following chapter, we shall try to find a theoretically correct depreciation figure based on the theory developed in this chapter.

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not discuss them here since our major concern in this paper is accounting for income determination purposes.

CHAPTER VII

DEPRECIATION : FROM A LEGAL POINT OF VIEW

> When income tax considerations, with taxes at their current high levels, are introduced into the scene, the controversy over depreciation becomes more heated.
>
> — Sidney Davidson, "Depreciation, Income Taxes and Growth", Studies in Accounting Theory, ed. W.T. Baxter and Sidney Davidson (Homewood: Richard D. Irwin, Inc., 1962), p.285 .

It was explained in chapter three that according to the provisions of Turkish tax laws, income determination is based on asset valuation. However, some assets are subject to depreciation and in order to determine the correct income of the period we have to find the correct net values of such assets. Determination of the correct net values of depreciable assets on the other hand depends on the determination of the correct depreciation expense figures. In the next chapter we shall explain a theoretically correct method of depreciation which leads us to the correct income figure. However, in this chapter we shall analyse the problem of depreciation mainly from a legal point of view .

According to Art.313 of TTPL, immovables and those assets which are considered as immovables according to Art.269 of TTPL , that is, fixtures and accesories of immovables, machinery, ships and other vehicles, intangible rights, furnitures and fixtures and cinema films which have a life of more than one year and which are subject to physical or technological obsolescence are subject to depreciation. Values of assets which constitute a base for depreciation expense should be determined in conformity with the provisions of Turkish Tax Procedure Law .

Some assets which have all the characteristics specified in Art.313 of TTPL may not be used in the company although they are included among the assets of the firm. Council of State , in one of its decisions states that such assets cannot be used as a base for depreciation.In order to be used as a base for depreciation an asset should be essential for the operations of the firm.[1] A building which is mortgaged in order to obtain money and which is used only for this purpose in the company has not been accepted as depreciable. Depreciation expense of such a building has not been considered tax deductable based on the grounds that such a procedure would be amortization of the capital.[2]

On the other hand some assets may be expensed in the current year although they have a life of more than one year.According to Art. 40 of Turkish Income Tax Law those assets such as goodwill, tools and instruments, fixtures and furnitures cost of which are less than 1000 TL may be expensed in the current year .

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1. Council of State,Gen.Ku.,K.53/499 ,6.10.1953 as quoted in Bulutoğlu, op. cit. , p.225 . Also,see the following decisions of the Comission of Tax Appeals : Tem.Ko.Gen.Ku. , 9/3/1960 T., K.1960/11 ; Tem.Ko.Gen.Ku.,4/11/1964 T. , K. 1964/427 ; Tem.Ko.Gen.Ku. , 20/6/1962 T.,K.1962/157 , as quoted in Necmettin Eroğlu, op. cit. , p.47,49,48 .
2. Council of State, 4.D., E. 56/3707, K.58/706, 27.2.1958 , as quoted in Bulutoğlu, op. cit. , p.206 .

Some assets may have fixtures (i.e. component parts) and accesories. In such a case depreciation rate applicable to the main asset cannot be applied to the fixtures and accesories if the useful lifes of the main asset and the fixtures and accesories are different.For example, Council of State in one of its decisions states that depreciation rate applicable to the building cannot be used as a depreciation rate for the water ,electricity and central heating systems of the building.[1] However, it is interesting to note that,on the other hand, Comission of Tax Appeals in one of its decisions states that,for those installations and machines which cannot be used independent of the building depreciation rates applicable to the building may be used.Depreciation rates applicable to independent installations and machines cannot be used for the installations and machines which cannot be used independent of the building.[2]

According to Art.320 of TTPL assets may be depreciated starting from the year in which they are included among the assets of the company. Depreciation expenses are calculated on an annual basis regardless of the specific month or date in which the asset is included among the assets of the entity.[3] In case the business is liquidated before the end of the year, depreciation expenses are still calculated on an annual basis .[4]

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1. Council of State, 4.D.,30.10.1963 T.,E. 1960/3111 , K.1963/3087 and Council of State, 4.D.,27.2.1965 T., E.1961/169 , K.1965/765 , as quoted in Necmettin Eroğlu , op. cit. ,p.56,64 .
2. Comission of Tax Appeals, Gen.Ku.,8/7/1959 T.,K.1959/240 , as quoted in N.Eroğlu, op. cit. , p.47 .
3. Şahabettin Acar , op. cit., p.26 .
4. Council of State, 4.D.,14/3/1960 T.,E. 1957/3851,K.1960/1090 and Council of State, 4.D.,15/3/1960 T., E. 1957/3761 , K. 1960/1118 , as quoted in N.Eroğlu, op.cit. , p.51 .

Empty land is not subject to depreciation. However, those land used for agricultural purposes such as vineyards, olive groves, etc and all the roads and agricultural establishments in such enterprises are subject to depreciation. If the land is a component part of a building then it is subject to depreciation together with the building.[1]

Straight line depreciation rates (referred as normal depreciation rates hereafter) which are based on the estimated useful lifes of the assets are determined by the Ministry of Finance. Taxpayers may use any rate they wish unless the rates are not more than the rates determined by the Ministry of Finance. Taxpayers cannot change the depreciation rates once established in the following years. A further restriction is that, they can not prolong the depreciable life of an asset by applying rates lower than the rates determined in the first year ; or by not deducting depreciation expense for a specific year, (Art. 320 of TTPL.) .

According to Art.315 of TTPL those merchants who are keeping books according to the balance sheet method may depreciate their assets using the double declining balance method. In the double declining balance method, depreciation base is determined each year by subtracting the accumulated depreciation from the gross value of the asset. Depreciation rate to be applied is twice the normal depreciation rate, unless it is not more than 25 % . Depreciable life of the asset in this method is the same as it is in the normal depreciation method. Balance of the net book value of the asset in the last year of its life is expensed totally in that year.

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1. See the following decision of the Comission of Tax Appeals, Gen.Ku., 14/12/1960 T., K. 1960/268 as quoted in N.Eroğlu , <u>op. cit.</u> , p.48 .

A taxpayer can switch from the declining balance method to the normal method of depreciation, but he cannot switch to the declining balance method of depreciation once he starts to use the normal depreciation method,(Art.320,TTPL).

Art. 317 of TTPL defines conditions under which extraordinary depreciation rates may be applied on depreciable assets.Depreciable assets may lose their value totally or partially due to fire, earthquake, flood or similar catastrophes or technological obsolescence or abnormal wear and tear due to compulsory extra work. For such movables, immovables or rights under these conditions,Ministry of Finance may determine extraordinary depreciation rates upon the request of the taxpayer, specifically for each enterprise according to the nature of their business. However,if the assets which lost their value due to fire, earthquake ,flood or similar catastrophes,have been insured, extraordinary depreciation rates cannot be applied. Difference between the indemnity received from the insurance company and the net value of the asset is charged to the loss or profit account. Nevertheless, if the asset is going to be replaced, such a profit can be held in a temporary account on the right hand side of the balance sheet at most for three years.If such an amount is not used for the replacement of the asset within this period it is transferred to the income account,(Art.329,TTPL) .

In case a depreciable asset is sold the difference between the net book value of the asset and the sale price is considered as a profit and thus subject to tax. (If the sale price is less than the net book value of the asset than the difference between the two can be recorded as a loss) Effect of the inflation in such a profit is totally ignored. However if the asset sold is going to be replaced, then such a profit may be held in a temporary account on the right hand side of the balance sheet at most for three years. If such an amount is used for the replacement of the asset sold within this period, it is deducted from the depreciation base of the new asset and the remaining value of the asset is considered as a base for depreciation in the following years. On the other hand,if such an amount is not used for replacement within this period it is included in the income of the third year. The net effect of such a procedure allowed in the TTPL ,Art.328 is a postponement of the tax for three years on this profit .

Temporary Art.11 of TTPL amended by Art.26 of Law No.205 dated 19.2.1963 prescribes the rules and procedures for revaluation of assets. Accordingly, merchants employing the balance sheet method of bookkeeping may revalue their depreciable assets, by multiplying the value of assets and the corresponding accumulated depreciation figures, with the coefficients determined by the Ministry of Finance. The increase in value due to revaluation is held in a special fund account on the passives side of the balance sheet.

The increase in value due to revaluation is calculated by subtracting the net value of the asset before revaluation from the net value of the asset after revaluation .

In case the special fund on the passives side of the balance sheet is transferred to capital account or withdrawn from the business it is considered as income of the current year and subject to tax. Depreciation of the revalued assets are based on the revalued amounts starting from the year of revaluation. If the increase in value due to revaluation has been taxed due to the reasons mentioned above,then, total amount of depreciation expense calculated on the revalued amount can be shown as an expense of the period. In case the increase in value has not been taxed, then the depreciation expense based on the revalued amount is still shown as an expense of the period, but, in this case depreciation expense corresponding to the difference between the increase in value due to revaluation is credited to the profit and loss account. The same amount is debited to the special fund account. So, in effect, depreciation expense of the current year is actually based on the value of the asset before revaluation. Hence, the net effect of revaluation as far as taxes are concerned is zero .

CHAPTER VIII

DEPRECIATION : A THEORETICAL APPROACH

> But while a change in opinion may require painful effort, the new beliefs may become habitual and perhaps more satisfying than the old ones.
>
> — Morris R.Cohen and Ernest Nagel, Logic and Scientific Method (New York:Harcourt,Brace and World,Inc.,1934), p.193 .

In the last chapter we discussed the problem of depreciation from a legal point of view. We have seen that according to the provisions of Turkish Tax Procedure Law, only the straight line and the double declining balance methods of depreciation are allowed to be used for tax purposes.These depreciation methods do not have any theoretical value. They are completely arbitrary ; there is no logic behind them, they are not based on any theoretical background.

In order to find a theoretically correct method of depreciation we need a theoretically correct definition of depreciation. We shall define depreciation as cost expiration.However,this definition is quite ambigious unless we define what do we mean by cost. We need clarification as to whether we mean historical cost, present replacement cost, future replacement cost, or any other concept of cost.In this chapter we shall explain a theoretically correct method of depreciation based on the theory of asset valuation we discussed in chapter six.[1] Thus, we

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1. This chapter is mainly based on the method of depreciation developed by Dr.Özer Ertuna very recently ; İbrahim Özer Ertuna, "Aktif Değerlendirmesi ve Amortisman" (unpublished

shall define cost as follows :

> Cost is the minimum amount of money someone must pay to induce us to sell the asset, or cost is the maximum amount of money we would pay to keep the asset. This is the net benefit of keeping the asset when compared to the best replacement alternative.[1]

We shall use an example to explain the theoretical method of depreciation and assume the following conditions.After a correct evaluation of alternatives in the market we decided to purchase the following machine, which has a useful life of two years, and which has the following cash flows. Market rate of interest is 10 % .

(end of periods)

0	1	2	3	4	5	and so on
-150	100	100	100	100	100	
		-150		-150		

In other terms, the annual equivalent cash flows of this machine is as follows.

$$- 150 \ : X \ a_{\overline{10\%|}\,2}$$

$$- 150 \ : X(1.7355)$$

$$X \ : - 86.43 \text{ TL}$$

So, instead of the above cash flows, we can write,

0	1	2	3	4	5	on
	100	100	100	100	100	
	-86.43	-86.43	-86.43	-86.43	-86.43	

Doçentlik dissertation,İstanbul İktisadi ve Ticari İlimler Akademisi,1969)

1. *Ibid.* ,p.15

Or, we can simply show the cash flows in the following manner :

0	1	2	3	4	5	and so on
	13.57	13.57	13.57	13.57	13.57	

Hence net present value of the cash flows of this machine until infinity is,

13.57 / 0.10 : 135.7 TL

However, 13.57 $a_{\overline{10\%}|\,2}$: 13.57 (1.7355) : 23.55 TL of these flows refers to the net present value of the cash flows of the first two years; i.e. until the first replacement. Thus, using the logic and terminology developed in chapter six, joint value of this machine is 23.55 TL ,and the future joint value is , 135.7 - 23.55 : 112.15 TL.[1]

Now,we can record the purchase of this machine in conformity with the theory of asset valuation we presented in chapter six.

Machine	150.00 TL	
Joint Value	23.55 TL	
Future Joint Value	112.15 TL	
Cash		150.00 TL
Unrealized Income		23.55 TL
Future Unrealized Income		112.15 TL

---

1. Another method of calculating the joint value would be,
(100 $a_{\overline{10\%}|\,2}$) - 150 : (100)(1.7355) - 150
: 173.55 - 150 : 23.55 TL.

We shall assume that, before the acquisition of the machine, balance sheet of the accounting entity was as follows :

Balance Sheet

Assets		Asset Sources	
Cash	150.00 TL	Capital	150.00 TL

After the acquisition of the machine balance sheet will be as follows, at the beginning of the first year.

Balance Sheet

Assets		Asset Sources	
Machine	150.00 TL	Unrealized Income	23.55 TL
Joint Value	23.55	Future Unr. Income	112.15
Future Joint V.	112.15	Capital	150.00
	285.70 TL		285.70 TL

Now, supposing we have used the machine for one year, we shall try to find the depreciation expense figure. We said that, depreciation is cost expiration. Hence, depreciation will be the difference between the cost at the time of acquisition and the cost at the end of period one.

According to our definition of cost, cost of the machine at the time of acquisition is 150 TL. Because, it is the minimum amount of money someone must pay to induce us to sell the machine. Since the machine sells for 150 TL in the market, if anyone pay us any amount less than 150 TL we shall not sell the machine, because we can replace the machine at least for 150 TL in the market. However, if someone pay us more than 150 TL, we shall sell the machine and buy a new one immediately in the market.

In order to find the cost of the machine at the end of period one we have to make a replacement analysis.

(After one year)

	0	1	2	3	4	so on
Replace the mach.	-150	100	100 -150	100	100 -150	
Do not replace		100 -150	100	100 -150	100	

If we do not replace the machine we shall have a cash inflow of 100 TL next year and replace it at the end of next year , since the machine's life terminates at the end of next year. Hence, NPV of cash flows in case we do not replace the machine will be (100 + 135.7) discounted back for one year, which equals to ,

$$\frac{100 + 135.7}{1.10} : 235.7\ (.9091) : 214.27 \text{ TL}$$

NPV of cash flows if we replace the machine will be 135.7 TL i.e. (13.57/.10), as we calculated earlier.

According to our definition of cost, cost of the machine at the end of first year is equal to 214.27 - 135.7 : 78.57 TL. Because, the minimum amount someone should pay in order to induce us to sell the machine at the end of first year is 78.57 TL. If anyone pay us more than 78.57 TL it would be better for us to sell the machine and replace it in the market . Cost at the end of second year is zero since the machine is going to be replaced anyhow.

(end of years)

	0		1		2	
Cost	150		78.57		0	TL
Depreciation ..		71.43		78.57		TL

Thus we can record the following journal entries for the first year in order to prepare the balance sheet for the end of the period.

Cash .... 100 TL
Revenue .... 100 TL
(To record the revenue of the asset)

Depreciation Expense ..... 71.43 TL
Machine .... 71.43 TL
(To record the depreciation on machinery)

Implicit Interest Expense .... 17.35 TL
Interest Income .... 17.35 TL
(To record the implicit interest earned on 150 TL investment in machinery plus 23.55 TL investment in joint value)

Revenue .... 100 TL
Depreciation Expense .... 71.43 TL
Implicit Interest Expense .... 17.35 TL
Income .... 11.22 TL
(To close the revenue and expense accounts)

Unrealized Profit ....11.22 TL
Joint Value .... 11.22 TL
(To decrease the balance in unrealized profit due to the fact that profit is realized at the amount of 11.22 TL.)

Future Joint Value ....11.22 TL
Future Unrealized Inc. .... 11.22 TL
(To increase the future joint value and future unrealized income balances due to passage of one year. The balance is increased to 112.15 + 11.22 : 123.37 TL which is 135.7/1.10 : 135.7(0.9091) : 123.37 TL)

Based on these entries we can prepare the income statement for the first year and the balance sheet for the end of the first year.

Income Statement for the first year

Revenue		100.00 TL
Depreciation Expense	71.43	
Implicit Interest Ex.	17.35	88.78
Income for the year		11.22
Interest Income		17.35
Total Income		28.57 TL

Balance Sheet, end of first year

Assets		Asset Sources	
Cash	100.00 TL	Unrealized Income	12.33 TL
Machine	78.57	Future Unr. Income	123.37
Joint Value	12.33	Interest Income	17.35
Future Joint Va.	123.37	Income	11.22
		Capital	150.00
	314.27 TL		314.27 TL

If we define wealth of the firm being equal to the total assets of the firm a comparison of the wealth of the firm at the beginning and end of the periods shall give us the income of the period.

Wealth at the end of the period .... 314.27 TL
Wealth at the beginning of the period ..... 285.70 TL

Difference between $W_{beg.}$ and W_{end}
of period one .... 28.57 TL

which is equal to the income we have obtained .

Article 38 of Turkish Income Tax Law defines income as the difference between ownersequity (özsermaye) at the beginning of the period and ownersequity at the end of the period. Thus, if we want to be consistent with the legal definition of income a comparison of the ownersequity at the beginning and end of the period shall result in the same income figure we have obtained .

Ownersequity at the end of period one	178.57 TL
Ownersequity at the beginning of period one	150.00
Difference between O.E.at the end and beg.of per.1	28.57 TL

which is equal to the income figure we have already obtained.

Income figure for the second and the following years can be calculated in an exactly similar way by comparing the balance sheets of the beginning and end of the periods.

Up to now we assumed existence of no taxes. However, existence of taxes would have no effect on asset valuation and depreciation methods we developed in chapter six and in this chapter. We shall demonstrate that existence of taxes would have no effect on the values of non-depreciable assets, on the values of depreciable assets and on the depreciation figures we obtain, in case of depreciable assets respectively.

To start with we shall assume a non depreciable asset with cash flows of 100 TL per year until infinity, a market rate of interest of 10 %(assuming perfect capital markets), and a tax rate of 50 %. If we ignore the existence of taxes present value of the asset is equal to(100 TL/.10) : 1000 TL. If we introduce the effect of taxes in order to find the net cash inflow, we have to multiply 100 TL by (1 - tax rate) such that , 100(1-.50) : 50 TL(after tax cash flows). In this case present value of the asset seems to be 50/.10 : 500 TL. However, if the interest expense is a tax deductable expense, the interest rate relevant for discounting is the effective rate of interest which is 10%(1-tax rate) : .05 . Hence, present value of the asset when we take into consideration the effect of taxes equals to 50/.05 : 1000 TL which is the same value we have obtained when we assumed no taxes. Present value of the asset is not influenced whether we take into consideration the effect of taxes or not.

Now, we shall illustrate that values of depreciable assets are also not influenced by the existence of taxes according to our method of asset valuation.We shall use the same depreciable asset we used at the beginning of this chapter as an example . Cash flows were as follows :

0	1	2	3	4	and so on
-150	100	100 -150	100	100 -150	

or annual equivalent cash flows were ,

0	1	2	3	4	
	13.57	13.57	13.57	13.57	and so on

We have already calculated that ,

	0		1		2
Cost	150		78.57		0
Depreciation		71.43		78.57	

Tax base and the cash flows after taxes can be calculated as follows :

	1	2	
Revenue	100.00	100.00	TL
Depreciation Expense	71.43	78.57	
Gross Income	28.57	21.43	
Tax (50 %)	14.285	10.715	
Income (after tax)	14.285	10.715	TL

We can find after tax cash flows either by subtracting the tax from the before tax cash flows, such that,

	1	2	
Before tax cash flow	100.000	100.000	TL
Tax	14.285	10.715	
After tax cash flow	85.715	89.285	TL

or, by adding depreciation expense to the after tax income figures, such that,

	1	2	
After tax income	14.285	10.715	TL
Depreciation Expense	71.43	78.57	
After tax cash flow	85.715	89.285	TL

So, net present value of the asset until the first replacement (i.e. for the first two years), using the after tax cash inflows, equals to ,

$$NPV \; : \; -150 + \frac{85.715}{1.05} + \frac{89.285}{(1.05)^2}$$

NPV : -150 + 85.715 (.952381) + 89.285 (.907029)
: -150 + 81.63 + 80.90
: 162.61 - 150

NPV : 12.61 TL such that cash flows are as follows until infinity ,

0	1	2	3	4	and so on
12.61	0	12.61	0	12.61	

NPV of these cash flows is equal to,

$$NPV : \left(\frac{12.61}{.1025} + 12.61 \right)^{1}$$

$$: 123.24 + 12.61$$

$$: 135.85 \text{ TL}$$

If we ignore an arithmetical round off error of (0.15) the above NPV is exactly the same NPV we have obtained when we completely ignored the effects of taxes, in which case NPV was 135.7 TL . Thus, we have demonstrated that consideration of taxes do not have any effect even on the value of assets which are subject to depreciation and replacement, according to our method of asset valuation.

Finally, we shall see how the depreciation figures calculated according to the theoretical method are also not affected by the existence of taxes .

In case we ignored the effect of taxes cash flows of the machine we used as an example were as follows :

---

1. (.1025) is the discount rate for two years at 5 % . It is equal to $(1.05)^2 - 1 : 1.1025 - 1 : .1025$.

0	1	2	3	4	and so on
-150	100	100 -150	100	100 -150	

In that case depreciation figures were calculated as follows :

	0		1		2	
Cost	150		78.57		0	
Depreciation		71.43		78.57		TL

When we take into consideration the effect of taxes, after tax cash flows were as follows as we calculated above.

0	1	2	3	4	and so on
-150	85.715	89.285 -150.0	85.715	89.285 -150.0	

Now let us see whether we shall wind up with the same depreciation figures when we use the after tax cash flows rather than before tax cash flows. Using our definition of cost,cost of the machine at the beginning of period one is 150 TL. In order to find the cost at the end of period one we make the following replacement analysis. If we do not replace the machine at the end of period one , net present value of cash flows would be,

$$\frac{89.285 + 135.85}{1.05} : \frac{225.135}{1.05} : 214.41 \text{ TL}$$

NPV of cash flows in case we replace the machine at the end of first year is 135.85 TL as we have already calculated above . Therefore cost of the machine at the end of period one (using after tax cash flows) would be 214.41 - 135.85 : 78.56 TL. In other words according to our definition of cost, the minimum amount that someone must pay to induce us to sell the machine is 78.56 TL. If someone pay us less than 78.56 TL it would be better for us to keep the machine.However, if someone pay us more than 78.56 TL it would be better for us to sell the machine and buy a new one in the market.Cost at the end of period two is zero since we are going to replace the machine at the end of period two anyhow. Thus, using the after tax cash flows :

	0	1	2	
Cost	150	78.56	0	TL.
Depreciation		71.44	78.56	TL.

If we ignore an arithmetical round off error of (0.01), these depreciation figures based on after tax cash flows are exactly same as depreciation figures we have obtained using the before tax cash flows. Thus we have also demonstrated that existence of taxes does not influence in anyway whatsoever the depreciation expense figures if we use the new method of depreciation.

Theoretically, this is an important characteristic of the new method of depreciation. Since we base our depreciation expense figures on the cash flows of assets under the existence of taxes relevant cash flows would be after tax cash flows. However, in order to find the after tax cash flows, we would need to know the amount of taxes. In order to find the amount of taxes on the other hand, we would need to know the amount of depreciation. That would be a vicious circle. Nevertheless, in the method of depreciation explained in this chapter, no matter whether we use after tax or before tax cash flows, we do not face such a problem, provided that, the tax mentioned is a general direct tax .

According to Art. 315 of Turkish Tax Procedure Law, however, we may use only the straight line or double declining balance methods of depreciation. Therefore in practice, the relevant cash flows in order to find the theoretically correct depreciation figures would be the after tax cash flows which are calculated based on the depreciation methods prescribed in the Turkish Tax Procedure Law .

CHAPTER IX

STOCK DIVIDENDS

> That the rank and file of stockholders should find it easy to be confused in this somewhat technical area is not very surprising, but it is both surprising and painful to observe the persistent misunderstanding and double talk among those who should know better.
>
> — William A. Paton, Corporate Profits (Homewood: Richard D. Irwin, Inc., 1965), p.101

Stock dividends (bedelsiz hisse senetleri), constitute an interesting point of conflict between accounting and legal concepts of income. In practice, stock dividends are considered as income and subject to tax. From an accounting theory point of view however, we can demonstrate that stock dividends do not have any effect on the well being of stockholders. "A stock dividend is not really a dividend but rather a redescription of the stockholders' equity of the firm. Retained earnings are transferred to permanent capital accounts but no assets are distributed."[1]

A firm may wish to transfer its retained earnings into a more permanent form of capital, capital stock. In such a case additional shares of stock are distributed to stockholders in proportion to the number of shares they previously held without any payment being made by the stockholders to the corporation.

1. Harold Bierman, Jr., Financial Accounting Theory (New York: The MacMillan Company, 1965), p.104 .

From the company's point of view Retained Earnings account is decreased (debited) and capital stock account is increased (credited) for the same amount.

Now, let us look at the problem from the stockholders point of view. After the stock dividend a stockholder shall obviously have additional number of shares. The questions to be asked are the following. Is the economic well being of the stockholders changed ? Is the amount of his investment changed ? Is his relative position among other stockholders changed ? Answers to all of this questions is no .

The only effect of a stock dividend is an increase in the number of shares held and a decrease in the book value per share. Total amount of investment of the stockholder, his economic well being and relative position among other stockholders, do not change after the distribution of stock dividends. Let us illustrate with an example.

	Before Dividend Declaration	After 10% Cash Dividend	After 10% Stock Dividend
Capital Stock	200,000	200,000	220,000 TL
Retained Earnings	100,000	80,000	80,000
Stockholders Equity	300,000	280,000	300,000 TL
Number of shares outstanding	1000	1000	1200
Book Value per share ...	$\frac{300,000}{1000}$	$\frac{280,000}{1000}$	$\frac{300,000}{1000}$
:	300 TL	280 TL	250 TL

	Number of Stocks	Book Value of Shares	Total Value of Shares
Before Stock Dividends	1000	300 TL	3000 TL
After Stock Dividends	1200	250 TL	3000 TL

Total book value of stocks held by the stockholder did not change after the distribution of stock dividends.Distribution of stock dividends created no more earnings for the company. The stockholder has no more earnings to claim on after the distribution than he had before.If the net income of the company was 12000 TL, earnings per share would be 12000 TL/1000 :12 TL before the distribution, where as earnings per share would decline to 12000 TL / 1200 : 10 TL per share after the distribution. On the other hand a shareholder holding 100 shares before the distribution would have 120 shares after the distribution of stock dividends. His total claim on current earnings would be 100x12 : 1200 TL before the distribution and 120x10 :1200 TL after the distribution.As we notice the shareholders total claim on the earnings of the company did not change after the distribution of stock dividends.His economic well being is also not affected.Since stock dividends are distributed in proportion to the number of shares outstanding as to each stockholder,his relative position among other stockholders also has not changed.

However, one point should be made clear in order to prevent misunderstanding.It is true that as the company makes profits and transfer these profits to the retained earnings account because of the increase in retained earnings, expectation about the future dividends and market value of shares may increase. But this is another problem.Whether an increase in the market value of shares is to be considered as realized and taxed or whether they should be considered as unrealized and not taxed is another problem.In this chapter what we really want to point out is that after the profit is transferred to the retained earnings account there will be no difference in the well being of stockholders whether the company distributes stock dividends and transfers some part of retained earnings to capital stock account or does not distribute any stock dividends at all.

On the other hand, it may be argued that due to lower price per share demand may increase in the market which may in turn affect the price per share.As a matter of fact price per share may be affected also due to ignorance and some psychological factors.However,as we discussed in chapter six value of a share of stock depends on its potential to bring dividends in the future. As long as the present value of the expected future cash inflows remain the same (i.e. determinants of value do not change), a change in the market price does not necessarily imply a change in the value of the shares,for the stockholder.

CHAPTER X

CAPITAL GAINS

> I do not think that too much should be made of this difficulty. We do not allow uncertainity about the future entirely to inhibit us from valuing property on the basis of expected net receipts, or at least on the best estimate we can make of them.
>
> — David Solomons, "Economic and Accounting Concepts of Income", The Accounting Review, XXXVI (July, 1961), p. 379.

In this chapter we shall discuss the basic nature of capital gains from an accounting point of view in conformity with the theory of asset valuation developed in chapter six. On the other hand we shall analyse the legal considerations in relation to capital gains and evaluate taxation of capital gains based on the theoretical framework developed in the first part of this chapter.

Capital gains may arise from holding depreciable and/or non depreciable assets. However, the basic nature of capital gains from an accounting point of view is essentially the same both in the case of depreciable and non depreciable assets.

In this chapter in order to avoid the problem of replacement we shall use a non depreciable asset, namely, the marketable securities as an example, to explain the nature of capital gains from an accounting point of view.

As we discussed in the previous chapters, value of an asset, in general is a function of the future cash generation potential of that asset. Suppose we acquired some marketable securities for 600 TL which have the following expected future cash flows.

end of years

0	1	2	3	and so on
-600	100	100	100	

If the market rate of interest is 10 % the following set of entries should be made in conformity with the theory of asset valuation described in chapter six.[1]

Marketable Securities	600 TL	
Excess Value	400 TL	
Cash		600 TL
Unrealized Income		400 TL

When a change occurs in the determinants of value, we merely adjust the Excess Value and Unrealized Income accounts. For example if our expectation about future cash flows change as follows:

0	1	2	3	
-600	120	120	120	and so on

we make the following adjustment.

1. Present Value of future cash flows : 100 /.10 : 1000 TL
Net Present Value of future cash flows : 1000-600 : 400 TL.
For an explanation of these entries refer to chapter six.

Present Value : 120 /.10 : 1200 TL

Net Present Value : 1200 - 600 : 600 TL

So we increase the Excess Value and Unrealized Income accounts to 600 TL as follows :

Excess Value .... 200 TL
Unrealized Income .... 200 TL

Thus when the market price remains the same and only the determinants of value change (such as expected future cash flows or time value of money), we adjust the value of securities for us merely by increasing or decreasing the Excess Value and Unrealized Income accounts respectively.

Now, suppose determinants of value remain the same (no change in the expected future cash flows and time value of money),but the market price of securities increase to 800 TL. In such a case since the determinants of value did not change, value of the securities for us remains the same.

However an economic event took place ; market price of securities increased. How shall we take into account this fact in our records ? Can we speak about a capital gain and make the following entry ?

Marketable Securities .... 200 TL
Capital Gain .... 200 TL

In order to be more analytical, suppose we sold and repurchased the securities. When we sell the securities the following entries should be made .

Cash	800 TL	
Unrealized Income	400 TL	
Excess Value		400 TL
Marketable Securities		600 TL
Capital Gain		200 TL

When we repurchase the securities we make the following entries

Marketable Securities	800 TL	
Excess Value	200 TL	
Cash		800 TL
Unrealized Income		200 TL

If we combine the above two set of entries we result in the following summary entry.

Unrealized Income	200 TL	
Marketable Securities	200 TL	
Excess Value		200 TL
Capital Gain		200 TL

Now the question is whether it is more appropriate to call this 200 TL an income or capital gain. We think it is a capital gain. Because, in this case, determinants of value did not change for us and therefore value of the shares remained the same. We think that when the determinants of value remain the same, it is more appropriate to label an increase in market price as a capital gain rather than income.

On the other hand according to the provisions of Turkish tax laws, this 200 TL is not subject to tax since the securities have not been actually sold in the market.

According to Art.81 of Turkish Income Tax Law, capital gains of more than 2000 TL realized within one year after acquisition are subject to income tax.In other words, if the time lag between acquisition and sale is more than one year and/or if the gain is less than 2000 TL, it is not subject to income tax. However, if the securities belong to a business enterprise of a real person,that is if the securities were included among the assets of a business enterprise of a real person, then all of the capital gain regardless of time and amount is considered as commercial income of the year in which the securities are actually sold, and subject to income tax.

Now let us turn back to our example.Suppose next year market price of securities increased further to 900 TL despite the fact that determinants of value remained the same. Hence, we make the following summary entry :

Unrealized Income .... 100 TL
Marketable Securities ... 100 TL
Excess Value .... 100 TL
Capital Gain .... 100 TL

Suppose the securities are actually sold this year.Since the acquisition value was 600 TL and the securities are actually sold for 900 TL, legally there is a capital gain of 300 TL and it is subject to progressive income tax,if the securities were included among the assets of the business enterprise of a real person, since no distinction is made between a capital gain and income in the calculation of commercial income according to the provisions of Turkish tax laws.However, we know that the total capital gain of 300 TL accrued over the last two years and not only in the second year.That is to say, 200 TL of the capital gain belongs to the last year and only 100 TL belongs to this year. Therefore theoretically it would be more sound had the gain distributed back to the past years and a lower progressive tax rate applied on the 200 TL for the last year and on the 100 TL for this year, rather than a high progressive rate on the total amount of 300 TL for this year.

In general we can say that according to the provisions of Turkish Tax Laws the total amount of capital gains are considered as a commercial income of the business enterprise of a real person in the year assets are actually sold and thus subject to higher progressive income tax rates. However from an accounting point of view capital gains may accrue gradually over a number of years and should be taxed accordingly.

CHAPTER XI

INCOME FROM OWNERS' POINT OF VIEW

> In applying the principles of income determination to the accounts of a shareholder of a corporation it is generally agreed that the problem of determining his income is distinct from the problem of income determination by the corporation itself.
>
> — Leonard E.Morrissey, Contemporary Accounting Problems (Englewood Cliffs,N.J. :Prentice-Hall,Inc., 1963),p.591 .

According to Art.8 of Turkish Corporation Tax Law, dividends received by corporations are not subject to corporation tax,if the following two conditions are satisfied :

1. Parent Company should own at least 10 % of the shares of the other company.
2. Parent Company should have acquired the shares either at the time of incorporation of the other company or at least since one year before the balance sheet date of the parent company.

Although dividends received by corporations are exempted from the corporation tax (iştirak kazançları istisnası),according to Art.96 of Turkish Income Tax Law, they are subject to withholding tax (vergi tevkifatı).

As a matter of fact, according to Art.96 of TITL the following items should be added to and subtracted from the net income of corporations in order to calculate the base on which witholding tax is going to be applied.

The items which are deducted from the net income are the following :

a) Corporation tax.

b) Compulsory reserves and provisions which are segregated according to the provisions of Turkish Commercial Code and special laws.

c) Donations and aids made to those departments which are included in the general and annexed budgets, to villages or to those associations which's purpose is public benefit.

d) Those fines paid in relation to late payment of taxes.

e) Losses of previous years which were not taken into account in tax payments.

f) That part of the net profit corresponding to the shareholders who are not real persons.

The items which are added to the net income are the following :

a) Those interest income and dividends received which are exempted from income tax and/or corporation tax.

b) Dividends received from other corporations which are exempted from corporation tax.

As we notice, only those reserves and provisions compulsory to segregate according to the provisions of Commercial Code and special laws are exempted from witholding tax. Thus retained earnings other than the compulsory reserves and provisions are also subject to witholding tax on the grounds that they constitute a distributable income.

If the distributable income which has been subject to witholding tax is distributed to the shareholders in the future, no additional tax witholding is applied on this income. Shareholders may deduct the amount of tax previously witheld from the total tax they are required to pay for the year in which they receive the dividends.However,tax witholding is done by the company in the current year regardless of the fact whether the so called distributable income is distributed or not distributed in that year. But the actual distribution to stockholders may be many years later.In such a case distributable income is not a realized income for the stockholders in the year witholding has been done. Therefore,in a sense witholding tax is taxation of an unrealized income where the stockholders do not actually receive dividends in the year tax witholding has been done.

To sum up, we can say that from an accounting point of view , distributable income calculated according to Art.96 of Turkish Income Tax Law is not a realized income for the stockholders unless it is actually distributed.From a legal point of view however,it is considered as a realized income of stockholders and subject to income tax witholding.

CHAPTER XII

CONCLUSION

For most of us the only source of information about the economic positions of business enterprises are the financial position statements published by these enterprises, for tax purposes. These statements have to be prepared in conformity with the legal rules and regulations prescribed in the Turkish tax laws. Those people who are not directly involved in accounting may think that income figures published for tax purposes constitute the most reliable information to base their decisions on. In this study our major contribution was to show that most of the provisions of the tax laws are based on no theoretical background.

Income determination according to the balance sheet method, as described in Art.38 of Turkish Income Tax Law depends on the valuation of assets and liabilities. Asset valuation is a theoretically correct approach to income determination. However, a correct income determination should be based on a correct valuation of assets and liabilities. Turkish Tax Procedure Law , prescribes most of the assets to be valued according to their historical cost. Historical cost is meaningless as a measure of the value of an asset. Assets do have some value for us because of their potential to bring cash in the future. Therefore, in order to arrive at a theoretically correct income figure, assets should be valued according to their future cash generation potential and not according to their historical cost.

Through out this study, we faced with three major sources of divergence between the accounting and legal concepts of income.

The first category includes differences arising from the nature of concepts.For example in the Turkish tax laws no distinction is made between income from ordinary course of operations and windfall gains (or losses), in the calculation of commercial income. A windfall loss is charged against the income of the current period according to Art.317 of Turkish Tax Procedure Law, by means of extraordinary depreciation rates, rather than being directly charged against the capital account.Capital gains are also considered as a part of the commercial income and taxed accordingly.However from an accounting point of view , extraordinary events, unavoidable, involuntary and unexpected on the part of management should better affect the capital account directly rather than penalizing the income of the current period.From a practical point of view an income figure distorted by extraordinary events may be misleading for the interested parties in their decision making process as we discussed thoroughly in chapter two.

A second example would be stock dividends.From an accounting point of view distribution of stock dividends does not affect the economic well being of stockholders and their relative position among other stockholders.However in the Turkish practice of taxation stock dividends are considered as income and subject to tax.

Another example would be determination of the cost of depreciable assets which constitute a base for the depreciation expense of the future years.In case the construction of a building is financed with a loan, legally the interest expense is included in the cost.However, if the construction is financed with the funds of the owner,the implicit interest expense can not be included in the cost.From an accounting point of view however it is inconsistent to allow the explicit interest expense to be included in the cost and not the implicit interest expense. The opportunity cost of using his own funds should be taken into consideration in case the construction is financed with the funds of the owner.

The second major source of divergence between the legal and accounting concepts of income is the rather arbitrary methods of valuation prescribed in the Turkish Tax Procedure Law. From an accounting point of view value is a subjective concept. Value of an asset may be different for different persons, at different places, in different times and under different circumstances. Specifically, value of an asset is most probably different for the buyer and the seller. Otherwise there would be little reason if any, for a market transaction. As we discussed above most of the assets are prescribed to be valued according to their historical cost for the determination of the taxable income. However, theoretically historical cost represents only the value disbursed in return for the assets acquired. On the other hand assets do have some value for the accounting entity either because they are expected to generate cash or result in cash savings in the future. Therefore from an accounting point of view assets should be valued at the present value of their expected future cash flows in order to arrive at a theoretically correct income figure.

Present value method of valuation is only permitted to be used for notes receivables and notes payables in the Turkish Tax Procedure Law. An interesting point is the inconsistency in the valuation of balance sheet items from a legal point of view. For example, legally, notes payables are permitted to be valued at their present value. However bonds payables which are essentially very similar to notes payables other than the maturity date are not allowed to be valued at their present value. According to Turkish Tax Procedure Law all the bonds payables issued by joint stock companies and State Economic Enterprises should be valued at their nominal value. It would be theoretically much superior if such bonds payables were permitted to be shown at the present value of the future interest payments plus the present value of the lump sum payment which represent a liability for several years hence.

On the other hand it is very interesting to see that according to TTPL ,tax value of buildings are based on the future net cash inflows. It is a theoretically correct approach to value buildings based on their future expected cash inflows. However, legally tax value is calculated by multiplying the net annual income of the buildings by ten which is a completely arbitrary number. Theoretically it would be a correct valuation method had the building valued based on the present value of future cash inflows rather than multiplying the annual net income by ten .

The third category of divergence between the legal and accounting concepts of income includes differences arising from timing of taxable income. For example legally a capital gain accrued gradually over a number of years is considered as an income of the year in which the securities are sold and it is subject to progressive rates of income tax if the securities were included among the assets of a business enterprise of a real person.

Another example would be witholding income tax applied on the distributable income of corporations calculated in conformity with Art.96 of Turkish Income Tax Law. From an accounting point of view, income tax witholding should be applied only to that part of the net income of the company which is actually distributed to stockholders. In other words that part of the net income decided to be retained in the business should not be subject to income tax witholding as if it has been realized by the stockholders.

Obviously there may be other specific points of divergence between the provisions of the tax laws and accounting theory. However, in this thesis we preferred to compare the general approach of the legal and accounting methods of income determination rather than an involved discussion on each of the provisions of Turkish tax laws. If we attempted to discuss each of the specific articles in the Turkish tax laws, one by one, most probably we would not be able to see the forest because of the trees. Anyhow, this study is believed to be a useful piece of work especially for those who are interested in the evaluation of legal provisions from a theoretical point of view.

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