MEASUREMENT OF INCOME ACCORDING TO TURKISH TAX LAWS

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Preface

Individual Income Tax, Corporate Income Tax and Tax Procedure Laws have been in force since 1950 in which the greatest tax reform in Turkey was achieved. These tax laws have been the basis of accounting practices in Turkey. Also, The General Bulletin of Ministry of Finance and decisions of the Court of State have greatly influenced accounting practices too (1).

One of the basic objectives of Turkish tax laws is to determine the income as a tax base. So, they accept that the most important objective of accounting is to determine the income of business enterpises as the tax base and to insure the tax auditing (2). The valuation issues in the Tax Procedure Law are directed to the measurement of income (3).

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(1) Benligiray Yılmaz; Kepekçi Celal: Muhasebe Kavram ve İlkelerinin Muhasebe Uygulamalarına Etkisi, Türkiye VII Muhasebe Eğitimi Sempozyumu içinde, s. 10, Anadolu Üniversitesi Basımevi, Eskişehir - 1985.

(2) Tax Procedure Law (TPL), Article No: 171.

(3) İbid, Article No: 258.

According to Income Tax Law, the income of a business enterprise is determined by comparing the owners'equities at the beginning and end of the period (4). For that reason, there are different valuation measures in the Tax Procedure Law that will be used at the valuation of each asset and liability. It is urged that that those valuation measures care tax justice and security (5).

I. Income Measurement By Comparing The Owners' Equities

Income Tax Law states in Article 38 how an enterprise income will be measured: «According to the balance sheet approach, commercial earning of an enterprise is the positive difference of the owners' equities between at the begining and end of the period. During this period if there are:

1. Added values are deducted.
2. Deducted values are added.

While the commercial earnings are being determined by this procedure, the valuation rules of TPL and Articles 40 and 41 of ITL are followed.

If there are securities earnings which are exempted from income tax, these earnings are deducted from the commercial earning.

Tax Procedure Law points out that «the difference between the total assets and liabilities is the owners' equity of the business enterprise. Even if reserves and profits are shown seperately on balance sheet, they are accepted as completing part of the owners' equity» (6). From this definition, we can write this equality as follows:

Owners' Equity = Net Assets — Liabilities

In order to measure the income by comparing the owners' equity, all assets and liabilities of the enterprise must be determined. And for this purpose, taking of inventory valuation works to

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(4) Income Tax Law (ITL), Article No: 38.
(5) Meriç Baki: Ticari ve Mali Bilançolarda İşletmeye Dahil İktisadi Kıymetlerde Değerleme, Maliye Hesap Uzmanları Derneği, s. 15, İstanbul - 1982.
(6) TPL, Article No: 192.

be done. Because of this reason, in Tax Procedure Law, valuation measures and the valuation of assets and liabilities of the business enterprises are stated in detail (7).

As we outlined in the preceding paragraphs, while the income of an enterprise is determined, the owners' equities at the begining and end of the period are compared. If there are added or deducted values to/from the enterprise, they are also paid attention. So we can summary the income measurement with this equation:

Income (profit) = Owners' equity at the end of the period — Owners' equity at the beginning of the period — Added values + Deducted values

Now lets illiustrate of income computation:

Items	Totals
— Assets at the beginning of the period	5.000.000.- TL.
— Liabilities at the beginning of the period	2.000.000.- TL.
— Deducted values in the period	500.000.- TL.
— Added values in the period	200.000.- TL.
— Assets at the end of the period	6.500.000.- TL.
— Liabilities at the end of the period	2.500.000.- TL.

The begin. owners' equity = 5.000.000 — 2.000.000 = 3.000.000.- TL
The ending owners' equity = 6.500.000 — 2.500.000 = 4.000.000.- TL
The income of the period = (4.000.000 — 3.000.000) + 500.000 — 200.000 = 1.300.000.— TL

We illustrated this example to show the basic logic of income computation by balance sheet approach. As it is known, the changes in assets, liabilities and owners' equity items are recorded at the ledger accounts in the accounting.

All of these explanations show that the measurement of income according to Turkish tax laws is performed by taking inventory and valuation. In this approach, the balance sheet is the uniqe statement which shows the financial position and operation results (profit or loss). For this reason, it isn't mentioned about income statement in Turkish tax laws. Therefore, inventory book is accepted as being one of the legal commercial books.

(7) İbid, Articles No: 261-268; 269-289.

II. Valuation and Valuation Measures

The objective of valuation is to appreciate and to determine the values of assets and liabilities of an enterprise in order to compute the income as the tax base (8). For this purpose, all assets and liabilities are determined and valued by Turkish Liras. Valuation measures which are used, will affect the financial position and operation results which are seen in the balance sheet. The balance sheet items and the profit or loss of the period will occur depending upon the valuation. As we mentioned before, according to Income Tax Law, commercial income as a tax base is the positive difference between beginning and ending owners' equity of the period. In order to determine the owners' equity, it is essential to value all assets and liabilities items. In valuation, each economic item is valued seperately.

Each of the economic items will be valued according to one of the valuation measures written below which are stated in TPL (9):

— Cost value
— Exchange price
— Possesion (realizable) value
— Book (recorded) value
— Face value
— Tax value
— Market value
— Precedent value

It should be admitted that it is diffucult to find proper terms and to explain the differences of these valuation measures as there aren't all of these in generally accepted accounting principles.

A. Cost Value

Cost value is the total of the disbursements which are paid to achieve any asset or to increase the value of it (10). There are

(8) İbid, Article No: 258.
(9) İbid, Article No: 261.
(10) İbid, Article No: 262.

some problems in determining the types and limits of these expenses. In spite of these handicaps, cost value is rather objective and applied most of all to the valuation measures.

B. Exchange Price

Exchange price (or rate of exchange) is the average values of economic unite which are determined according to the transactions occured in quoted stock exchange, foreign exchange and commercial exchange (11).

Generally, this value isn't applied in measurement of income of an business enterprise as tax base.

C. Possesion Value

Possesion value is the real value of an asset or a liability to its owner in the valuation day (12). This value is the present value (discounted value) of an asset or a liability in the valuation day.

D. Book Value

Book (recorded) value is the value of an economic unit that is seen in accounting books (13). If one of the balance sheet item is going to be valued with the book value, the recorded sum in the books is accepted being its value.

E. Face Value

Face value is value which is written on all kind of bonds, stocks and notes (14).

F. Market Value

Market Value is the current value of an economic item on valuation day (15).

This valuation measure isn't used for income determination of business enterprises.

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(11) İbid, Article No: 263.
(12) İbid, Article No: 264.
(13) İbid, Article No: 265.
(14) İbid, Article No: 266.
(15) İbid, Article No: 266 (repetead).

G. Tax Value

According to Tax Procedure Law, the tax value is the current value of buildings and lands (16). This value is determined according to Property Tax Law.

It is necessary to point out that the buildings and lands of the business are not valued with tax value. Because, these plants of business enterprises are valued at cost.

H. Precedent Value

267. Article of TPL is related with precedent value. The precedent value is the value of a good which hasn't real value or can't be determined correctly on the valuation day what will be the price if it is sold.

Precedent value is determined in order according to the basis at the following (17):

— First order — Average price basis
— Second order — Cost price basis
— Third order — Appreciation basis

These valuation measures are used with all kinds of tax subjects. But usable valuation measures for income measurement of business enterprises are five. These are cost value, possesion value, book value, face value and precedent value. The book value, in essence, is cost or face value. So in reality, there are four valuation measures to be used for income measurement of business entrprises in tax laws.

II. Valuation of Balance Sheet Items

A. Assets

1. Cash on Hand

According to Tax Procedure Law, Turkish Liras is valuated by face value (18). The face value is written value on the moneys.

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(16) İbid, Article No: 268.
(17) For detail knowledge about these basis, look TPL Article No: 267.
(18) İbid, Article No: 284.

Besides, the cash is the measure of the values, the preceding statements are only the repetetion of what should be.

2. Foreign Currencies

Foreign currencies will be valued by rate of exchange (19). But there isn't currency exchange in Turkey. So, foreign currencies have been valued by the rate determined by Ministry of Finance (or Central Bank).

3. Commercial Deposits in Banks

Commercial deposits in banks are kept in seperate ledger account from the Cash Account in Turkey.

There isn't any statement in the TPL which is related with the valuation of commercial deposits in bank. But in practice this asset is accepted a receivable from the banks, so they are valuated by book value.

4. Stocks and Bonds

As it is known, business enterprises have stocks and bonds as temporary investments or long-term investments. According to Tax Procedure Law, all stocks and securities are valued of purchase price without considering what the main purpose is (20). There isn't financement interest in the purchase price. So, interest expenses aren't added to the purchase price which is paid in order to have securities .

Capital of a company can be increased by reserves and revalued gains (funds) and with these resources new stocks can be issued. If these stocks that are given to the stocholders without return (money), they are valued of the amount of reserves and revaluation gains.

5. Receivables

a. Notes Receivables

Business enterprises may value their notes receivables by book value or possesion value. But, banks, bankers and insurance com-

(19) İbid, Article No: 280.
(20) İbid, Article No: 279.

panies have to value their notes receivables only by possesion (realizable) value (21).

Notes receivables are usually reported at their book value although, theoretically, they are not worth such amounts until their maturity.

When possesion value is used as the valuation basis, note receivables are properly reported at their present discounted values-Claim balances reduced by the application of a discount rates for the period from the balance sheet date to the date of collection,

b. Account Receivables

Accounts receivables are valued by book value (22). In other words, account receivables are reported at the amounts collectible according to the terms of sale even though such collections may not be made for some time.

c. Doubtful Depths

The collection of some of the receivables arising from the sales may be doubtful. The amount of receivables accepted doubtful is recorded by a charge to Doubtful Expense and a credit to Allowence for Doubtful Accounts.

According to the Tax Procedure Law, the receivables which are at the stage of court or bailiff, are accepted doubtful receivables (23). If there is a guarantes covering the receivables, it isn't accepted that there will be any doubtful receivables.

d. Worthless Depths

When positive evidence is available concerning complete worthlessness of a receivable, a charge is made to the allowance account and the receivable is credited.

Positive evidence of worthlessness is found in courts decisions or bankruptcy, death or disapperance of a debtor (24). Write-offs

(21) İbid, Article No: 281.
(22) İbid, Article No: 281.
(23) İbid, Article No: 323.
(24) İbid, Article No: 322.

should be supported by evidence of the uncollectibility of the accounts from appropriate parties, and should be authorized in writting appropriate company officers .

6. Inventories

There are many statements about valuation of inventories in Tax Procedure Law. We shall explain the valuation of inventories according to the range of TPL. This range is as follow in TPL:

— Valuation of Purchased Inventories (25)
— Valuation of Manufactured Inventories (26)
— Valuation of Agricultural Products and Farm Animals (27)
— Valuation of Deteriorated Inventories (28)

According TPL all kind of these inventories are valued at cost. But there are some differences in determining the costs of them.

a. Valuation of Purchased Inventories

The two most important functions of accounting for inventories are 1) to determine the quantity of goods to be included in inventories, and 2) to determine the cost of the inventories on hand. The first function involves the taking of inventory, the account a valuation inventory (29).

After the quantity of goods on hand has been determined, the valuation process is to ascertain the inventoriable costs elements of goods purhased. The determination of the cost elements of goods that were acquired is necessary. In the case of raw materials and goods acquired for resale, cost includes in addition to the purchase price, freight, insurance, receiving, storage and all other expenditures incurred to the time goods are ready for sale (30).

According tax applications, each item of inventory should be identified with its costs and that sum of these amounts should constitute the inventory value. Although such a technique maybe

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(25) İbid, Article No: 274.
(26) İbid, Article No: 275.
(27) İbid, Articles No: 276,277.
(28) İbid, Article No: 277.
(29) İbid, Article No· 186 and Turkish Commercial Act Article No: 73.
(30) İbid, Article No: 262.

considered a highly satisfactory approach, the practice may be difficult or impossible when an inventory is composed of great many items, some being similiar items acquired at different prices. If it is impossible to apply this specific identification method, it is recommended to apply weighted average method.

As it is known «first-in, first-out method» and «last-in, first-out method» are based on cost value ,they aren't accepted easily from the controllers of Ministry of Finance at the tax auditing.

b. Valuation of Manufactured Inventories

Three classes of inventory usually are found in a manufacturing enterprise: 1) materials, 2) goods in process and 3) finished good. The costs of these inventories emerge as a part of general process of the measurrement of the cost elements. According TPL cost elements are these (31):

1) Direct materials
2) Direct labor
3) Factory overhead
4) General and administrative expenses (it isn't imperative)
5) Package material

These costs must be assigned to the goods that are still in production at the end of the period end to goods that were completed and placed in stock during the period. Costs assigned to goods completed during the period must then be related to the goods remaining on hand at the and of the period and to goods that were sold during the period.

c. Valuation of Agricultural Products an Farms Animals

Agricultural products are also valued at cost. While computing of the cost the rules are considered which are determined by Ministry of Finance (32).

The animals of farms are valued at cost. When it is impossible to determine the cost of farm animals. Precedent value is used instead of cost value (33).

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(31) İbid, Article No: 275.
(32) İbid, Article No: 276.
(33) İbid, Article No: 277.

d. Valuation of Decreased Value Inventories

It doesn't be proper to value the decreased value inventories at cost. Therefore these inventories can be valued at precedent value. But in order to use this mesasure to the decreased value inventories. TPL sets down some necessities. These are as follows (34):

— Decrease of value must be the conclusion of fire, earthquake, flood and so on.

Also, these inventories must be deteriorated, obsolete damaged or scrap.

— Decrease of value must be important.

— The selling price of inventories must be low %10 percent or more according to the their cost value at the valuation day (35).

7. Prepaid Expenses

Prepaid expenses (prepayments) may be found such items as insurance, rent, advertising and supplies. When payment is made in advance of the receipt of a service or when supplies are acquired and not fully utilizied, recognition of a prepayment is in order.

Expenses which are not belong to this period are capitalized under the «prepaid expenses» heading and valued at the book value (36).

8. Fixed Assets

Fixed assets can be divided into two groups: 1) Tangible Assets and 2) Intangible Assets.

a. Tangible Assets - Plant and Equipment

Under this heading are included such items as land, buildings, machinery, equipment, furnitures and so on.

There are a number of different ways in which plant and equipment items are acquired. But generally they are purchased from

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(34) İbid, Article No: 278.
(35) İbid, Article No: 274.
(36) İbid, Article No: 283.

abroad or constructed by enterprises itself. Without considering the acquisition way, all kind of tangible assets are valued at cost (37).

When they are purchased, the cost of plant asset includes not only the original purchase price but also the other expenditures required in obtaining and readying it for the purpose for which it was acquired. Any taxes and duties, freight and cartage, and other related to the acquisition are added to the original outlay (38). But when a land or a building is bought, related expenditures may not included to the cost. They may be accepted as period expenses (39).

Occasionally, a building, machine, or equipment may be constructed by a business enterprise that intends to use it, either because this is an economical method of acquisition or because the quality and specifications of the asset can be controlled better if the asset is self-constructed. When such construction takes place, it is valued at its actual cost (40). But when such construction takes place a number special problem arise in arriving at asset cost (41).

Expenditures relating to plant normally are made throughout the economic life of such assets. The approach of Tax Procedure Law for dealing with these expenditures may be stated as follows:

1) Expenditures to maintain plant assets in good operating condition are recorded as expences of the period in which they are incurred (42).

Minor repair and maintenance expenditures usually required throughout the economic life of a plant asset to keep it in efficient operating condition. The distinguishing characterestic of such expenditures is that they neither add to the value of the asset nor materially prolong its economic life.

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(37) İbid, Articles No: 269, 273.
(38) İbid, Article No: 270.
(39) İbid, Article No: 270.
(40) İbid, Article No: 271.
(41) Benligiray Yılmaz: Maddi SabitV arlıklarda Aktifleştirme veEdinim Sonrası Harcamaların Muhasebeleştirilmesi, ESADER Cilt XVII, Sayı: 2 içinde, s. 6276 Eskişehir - 1981.
(42) İbid, Article No: 272.

2) Expenditures that result in additional asset services, more valuable asset services, or extension of economic life are capitalized (43).

A new plant wing, additional loading docks represent additions. Expenditures are capitalized, and this cost is written off over the service life of the addition.

Changes in assets designed to provide increased or improved services are referred to as betterments or improvements. Installation of improved lightling system represent such betterments. Also the cost of this system is capitalized.

B. Depreciation of Tangible Assets

Plant and equipment items have a limited useful life as a result of certain physical and functional factors. Therefore the cost of all tangible assets must be depreciated according to their useful life (44). But empty lands aren't be depreciated because of its limited life (45). The fruit trees of agriculture business and the roads constructed by business enterprises are also to be depreciated (46).

Depreciation accounting calls for the recognition of both physical and functional factors that limit the useful life of an asset. And accounting for deprectiation is a process of cost allocation, not asset valuation.

According to TPL two different depreciation methods can be used to obtain tax base. There are also seperate statement for depletion in mines.

1. Straight-line Method

The straight-line method relates depreciation to the passage of time and recognizes equal periodic change over the life of an asset. The depreciation charge is not affected by asset productivity, efficiency or degree of use.

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(43) İbid, Article No: 272.
(44) İbid, Article No· 313.
(45) İbid, Article No: 314.
(46) İbid, Article No: 314.

The business enterprise can determine depreciation rate freely. But these rates can not exceed %25. The rates which will be applied to buildings are determined by Ministry of Finance (47).

Considering the useful life, the determined depreciation rates are commonly expressed as a percentage to be applied periodically to asset cost. Assuming a 20 years life, the depreciation rate is calculated as follows: %100:20=%5. This percentage is applied to the cost of an asset.

Straight-line depreciation is a widely used method. It is readily understood and frequently parables observable asset deteriotion. It has advantage of simplicity and under normal plant conditions offers a satisfactory means of allocation.

ıı. Declining balance Method

This depreciation method result in larger amounts of depreciation in early years of economic life, and smaller amounts in later years. Fixed percentage rate is applied on a constantly declining carrying amount, the depreciation expense decreases each year.

Tax Procedure Law provide that the percentage may be as high as twice the applicable straight-line rate. For example, the straight-line rate for an asset with an estimated economic life of four years is %25, and the fixed-percentage rate is %50 (%25x2). The double percentage rate can't exceed %50 (48).

In this method, depreciation year is equal of straight-line method and in last depreciation year the balance is the depreciation of the last year.

ııı. Depletion of Natural Resources

Natural resources move towards exhaustion as the physical units that such resources comprise are removed and sold. The reduction in the cost or value of naturel resources as a result of the withdrawal of these natural resources (oil, gas, mining of coal, iron

(47) İbid, Article No: 315.
(48) İbid, Article No: 316 (repeated)

and so on) referred to as depletion. The most common method of depletion for financial accounting method, which produces a constant depletion charge per unit of the natural resource removed.

For the tax base, the cost or grant value of mines are depleted according to the percentage rate which are determined seperately for each mines by the Ministry of Finance and Ministry of Industry (49).

c. Intangible Assets and Amortisation

The basic characteristic that distinguishes intangible assets from tangible assets is that the former are not physical in nature. Intangible assets derive their values by affording special rights or advantages that are expected to contribute to the earning of the business. Intangible assets include patents, copyrights, trademarks, trade names, organization costs, franchises, licenses and goodwill.

A business enterprise may acquires intangible assets from others, or it may develope internally certain types of intangible assets. In general, valuation for intangible assets should follow the standards employed for the tangible group. Intangibles should be recorded at cost. Cost should include all expenditures related to the development or purchase of the assets.

Costs are reported for intangible assets only when certain expenditures can be related to their acquisition. For example, no value should appear on the books for a franchise that is acquired without cost or for a company's goodwill developed over a period of years.

The process of systematically writing off the cost of intangible asset is called amortisation. Legal or contractual circumstances may place an outside limit upon the term of usefullness of an intangible.

1. Goodwill

Goodwill is the difference between the value of a business enterprise as a whole and the sum of the current fair values of its idendifiable tangible and intangible net assets. It includes such

(49) İbid, Article No: 316.

items as a good name, capable staff and personel, high credit standing, reputation for products and services, and favourable location.

Goodwill is recorded on the books only when it is acquired by purchase, it is amortised in five years each year %20 (50). If the paid sum as the goodwill is not over 100.000.- Liras. may be written off in total upon its acquisition (51).

ii. Organization Costs

In forming a corporation, certain expenditures are incurred such as legal fees, issuance costs of the shares of capital stock, initial costs of stockholders and so on. The benefits to be derived from these expenditures normaly extend beyond the first fiscal period. But according to TPL, capitalizing or expensing these expenditures is left to the preference of the corporation (52). If they are capitalized, these costs must be amortised over a period of five years (53).

iii. Leasehold Improvements

Leasehold improvements arise when property has been leased and additions, improvements, or alterations are made by the lessee. Improvements are usually idendified with the original property and belong to the owner at the expiration of the lease. The lessee, however, enjoys the use of such improvement throughout the lease period. Under such circumstances, improvement cost are appropriately recorded by the lessee as leasehold improvements (special costs) and are regarded as an intangible asset.

Improvement costs should be written off to operations over the life of the benefits. This period is the lenght of the lease (54). If occupancy is terminated before improvement costs have been fully amortised, the unamortized balance must be written off as an expense (55).

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(50) İbid, Article No: 326.
(51) İbid, Article No· 313.
(52) İbid, Article No: 282.
(53) İbid, Article No: 326.
(54) İbid, Article No: 327.
(55) İbid, Article No: 327.

If the legnht of the lease is not known, improvement cost should be amortised over a period of five year.

B. Liabilities and Owners' Equity

1. Bank Credits

One of the financial resource of business enterprises is bank credits. Nearly every business enterprises use bank credits.

Like commercial depozits in bank, there isn't any statement in the TPL which is related with the valuation of bank credit. But as bank credit is liabilities to the bank, are valuated of the book value.

2. Liabilities

a. Notes and Accounts Payable

Both notes and accounts that are payable originate from the purchase of goods and services and from short-term borrowings.

Business enterprises may value their notes payable by book value or possesion value. But banks, bankers and insurance companies have to value their notes payable only by possesion (realizable) value (56).

When possesion value is used as the valuation basis, notes payable are reported at their present discounted values-claim balance reduced by the period from the balance sheet date to the date of payment.

Accounts payable are valued by book value (57). In other words, accounts payable are reported at the amount which is written on this account .

b. Bonds Payable

Borrowing by means of bonds involves the issue of a number of certificate of indebtedness. Bond certificates may represent equal parts of bonds issue or they may be of varying denominations.

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(56) İbid, Article No: 285.
(57) İbid, Article No: 285.

The issved bonds by the corporations should be valued at their face value (58).

3. Deferred Revenues

Cash may received for goods and services that are to be supplied in future periods. Examples of transactions that call for revenue deferral include leasehold and rental prepayments, and fees received in advance on long-term service contracts. Such transactions are recognized in the accounts by charges to assets and credits to accounts reporting the advance payments. And these deferred devenues are valued at the book value (59).

4. Owners' Equity

As it is known the difference between total assets and liabilities is the owners' equity of a business enterprise. Owners' equity include paid capital, reserves, and period profit (60). In order to compute the owners equity, all assets and liabilities must be determined. Therefore, there isn't any statement about the valuation of owners' equity in the TPL.

SUMMARY AND CONCLUSION

Turkish tax laws have been the basis of accounting practices in Turkey. One of the basic objectives of Turkish tax laws is to determine the income of business enterprises as tax base. Therefore, the valuation in the Tax Procedure Law is directed to the measurement of tax base.

As it is accepted that the income of busines enterprise should be computed by comparing the owners' equities between at the beginning and end of the period, all assets and liabilities of the enterprise should be determined. Because of this reason, in Tax, Procedure Law valuation of assets and liabilities of a business enterprise are stated in detail.

Because of the reasons that we mentioned above, there isn't any statement about the recognition of revenue in Tax laws. But

(58) İbid, Article No: 286.
(59) İbid, Article No· 287.
(60) İbid, Article No: 192.

Individual Income Tax Law and Corporate Income Tax state of which expenses can be deducted form the income in order to reach the tax base.

Although only the balance sheet items were considered in Tax Procedure Law because of its approach, the transactions of business erterprises are not recorded at only balance sheet accounts. But, income statement accounts (revenue and expense accounts) are used too.

As conclusion, we wish that the tax laws shouldn't take place of generally accepted accounting principles. Because, the purpose of accounting isn't only measurement of income of business enterprises.