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ACCOUNTING AND TAX DEPRECIATION OF FIXED ASSETS: METHODOLOGICAL PROBLEMS AND WAYS TO SOLVE THEM

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Abstract

This paper aims to identify difficulties when calculating the depreciation of fixed assets for tax purposes. Therefore, it is necessary to simplify this contradictory and difficult sector of accounting. In this respect, the author examines the causes of differences between tax and accounting depreciation and recommends solutions for improvement. Particularly, these regard the following measures:

1) establishing a single method for determining the amortization of fixed assets for financial and tax purposes;
2) recognizing a single input and amortization value of fixed assets in accounting and taxation;
3) calculation of amortization of fixed assets for tax purposes in the first year of operation depending on the date of their entry into service;
4) elimination of tax rules on the calculation of the value basis related to the category of fixed assets at the end of the reporting period by canceling them.

The following methods were used for research: observation, comparison, selection, classification, analyses, and summary.

The recommendations made by the author, allow changes to the tax code and respectively in this sector of accounting.

Keywords: *accounting depreciation, tax depreciation, linear depreciation, accelerated depreciation, diminishing balance method.*

JEL classification: M41

1. Introduction

One of the most difficult accounting and tax differences faced by consumer cooperative entities when calculating and accounting of income taxes is the difference related to fixed assets.

The main factor which causes the difference between carrying amount and tax value of fixed assets (fixed means) is their depreciation.

Issues relating to the correct calculation of differences regarding the depreciation of fixed assets and their accounting were investigated by local researchers Bucur V., Ţurcanu V., Graur A. [2, p.127-149], Prisacari T. [7, p 48-55], Zaharcenco I. [8, p.56-59], etc.

Even after 16 years of implementation of the rules for calculating the depreciation for tax purposes, many accountants do not know their purpose. What the rules for calculating the depreciation of tax purposes are about and how justified is the enormous amount of work required

to accomplish such accounting records? Which are the effects of these rules for economic agents calculating the depreciation of fixed assets for state tax purposes?

The main objective of this investigation is to determine how to simplify this sector of accounting.

2. Accounting and tax depreciation

According to legal regulations of the Republic of Moldova, since January 1, 1998 until present two different depreciation concepts are being used:

1) accounting depreciation (established by accounting regulations);
2) tax depreciation (established by fiscal regulations).

The calculation and accounting of fixed assets depreciation in terms of accounting regulations is governed by § 19-28 of the NAS (National Accounting Standard) "Tangible and intangible assets" [1] and § 43-62 of IAS (International Accounting Standard) 16 „Intangible assets" [6].

The rules for determining the depreciation of fixed assets for tax purposes are established by the provisions of the Tax Code of the Republic of Moldova no. 1163-XIII of 24.04.1997 [4], Regulations on record keeping and calculation of the depreciation of fixed assets for tax purposes no.289 of 14.03.2007 (hereinafter Regulation) [5] and the Catalogue of fixed assets and intangible assets [3].

Depreciable amount is the cost of an asset, or other amount substituting the cost, less its residual value. Depreciation is the systematic allocation of the depreciable amount of an asset over its useful life. In financial accounting, depreciation of fixed assets is calculated monthly and their depreciation for tax purposes is calculated only once - at the end of the reporting year. Multiple rules for determining the depreciation of tangible assets for tax purposes create differences between the amount of depreciation determined for financial and tax purposes. Therefore, the question arises: how to equate the carrying amount to the tax value of the fixed asset? There are only two ways to equate the carrying amount to the tax value of the fixed assets:

- equating the tax value with the carrying amount of fixed assets;
- equating the carrying amount with the tax base of fixed assets.

But how to make the depreciation amount of fixed assets for tax purposes be the same as in accounting, or vice versa – how to make the depreciation amount of fixed assets determined in accounting the same as the depreciation amount for tax purposes? In our view, this objective can be achieved considering the following possibilities:

1) establishing a single method for determining the depreciation of fixed assets for financial and tax purposes;
2) recognizing a single input value and depreciation of fixed assets in accounting and taxation;
3) calculation of fixed assets depreciation for tax purposes in the first year of operation depending on the date of their entry into service;
4) elimination of some tax rules on the calculation of the value basis related to the category of fixed assets at the end of the reporting period by canceling them.

Ways to equal the amount of depreciation of fixed assets for accounting and tax purposes will be further investigated. At first, we will determine the most appropriate method of depreciation for

financial and tax purposes. Equaling the amount of depreciation for both purposes can be achieved when using in accounting the diminishing balance method or when applying in taxation the straight-line depreciation method, which is commonly used in financial accounting. For this purpose it is necessary to make amendments to tax law.

Example 1. Consider that the entity "Consumcoop Pelivan" put in to operation the equipment, whose input value is MDL 38000, residual value - MDL 2000, duration of use - 5 years. The depreciation ratio is 20% (100/5). At the end of the equipment operation period, the company registered useful material input in the amount of MDL 2000.

The equipment put into operation has the capacity to produce 80 000 pieces. The entity actually manufactured in the first year - 19 000 pieces, in the second year - 17 200 pieces, in the third year - 17 000 pieces, in the fourth year - 14 800 pieces, and in the fifth year - 12 000 pieces. Depreciation for a piece will be MDL 0.45 (36 000/80 000).

"Consumcoop Pelivan" applies the diminishing balance method, increasing the depreciation ratio by 1.5 times (NAS "Tangible and intangible assets" allows the increase of depreciation ratio under straight-line depreciation method not more than 2 times). According to tax rules, the equipment refers to the V category of fixed assets with the ratio of 30%.

Calculations of depreciation amounts in the financial accounting and for tax purposes are presented in Table 1

Table 1: Calculation of equipment depreciation based on accounting and tax methods

Reporting period	Depreciation of the equipment in financial accounting (in MDL)			Depreciation of the equipment for tax purposes (in MDL)
	Straight-line method	Units of production method	Diminishing balance method	
At the end of year I	36000 x 0,2= 7 200	19000x0,45 = 8 550	38000 x 0,3= 11 400	38000x0,3 = 11400
II	36000 x 0,2= 7 200	17200x0,45 = 7 740	26600 x 0,3 = 7 980	26600x0,3 = 7 980
III	36000 x 0,2= 7 200	17000x0,45 = 7 650	18620 x 0,3 = 5 586	18620x0,3 = 5 586
IV	36000 x 0,2= 7 200	14800x0,45 = 6 660	13034 x 0,3 = 3 910	13034x0,3 = 3 910
V	36000 x 0,2= 7 200	12000x0,45 = 5 400	36000-28876 =7 124	9124 x 0,3 = 2 737
VI	-	-	-	36000 - 31613=4 387
Total	36 000	36 000	36 000	36 000

Source: Elaborated by the author

Analyzing the annual depreciation of fixed assets calculated by the methods provided by NAS "Tangible and intangible assets" [1] we found that in the above-mentioned conditions, for the first four years of operation, the depreciation amount of equipment determined by diminishing balance method is identical to the amount of assets depreciation calculated for tax purposes. We note that in the last reporting year, the depreciation of fixed assets determined by accounting rules reaches a much larger size than in the last two years. We also found that the operation period of the analyzed equipment for tax purposes exceeded by one year the period of equipment operation set in the financial accounting.

According to the research carried out, we can see that duration of fixed assets operation established for tax purposes is higher than the one established for accounting purposes. Although the Catalogue of fixed assets and intangible assets prescribes specific durations for the use of fixed assets objects for tax purposes, these are not real and depend on the input value of the fixed assets

object. From this, we can conclude that the time limit for the calculation of depreciation depends on the input cost of fixed assets. In order to prove this idea Example 2 will be described.

Example 2. On January 2, 2013 "ANGROCOOP Chisinau" has acquired an asset at an input cost of MDL 8 mln. During the period of asset usage, there was not recorded information related to correcting its value. Depreciation of the asset according to financial accounting is determined by the straight-line method, according to tax depreciation norms, while for taxation purposes depreciation is determined according to the method provided by the tax legislation.

As a result of calculations the following results were obtained (Table 2):

Table 2: Duration of the fixed asset use in financial accounting and tax regulations

The cost of entry, MDL	Depreciation rate, %	Duration of use of the fixed asset in financial accounting, years	Duration of use of the fixed asset for tax purposes, years
8 000 000	12,5	8	54
8 000 000	20	5	34
8 000 000	30	3,33	21

Source: Elaborated by the author

Data in the table indicate that the duration for calculating the depreciation of fixed assets for tax purposes by diminishing balance method is much longer than the period for calculating the depreciation of fixed assets in financial accounting by straight-line method. In author's opinion, this methodology for calculating depreciation is in the interest of companies in terms of jobs creation, increase of production volume, reproduction of fixed assets, attraction of investments on Moldovan market.

Diminishing balance method used for tax purposes when calculating depreciation is effective approximately for 50% of the object value. Compared to the straight-line method, the mentioned method increases the period for calculating the depreciation of fixed assets object in the next years of operation. Theoretically, for accelerated cassation of fixed assets, from the moment when depreciation accumulates 50% of the object value, it is necessary to pass from the method fixed by the Tax Code to the straight-line method.

As a result the following problems will be excluded:

- dependency of the cassation term on the initial value of fixed assets;
- uncertainty concerning the cassation term of fixed assets object.

And it is also necessary to correct the depreciation calculation method for tax purposes.

In author's vision, the method for calculating the depreciation for tax purposes is very complicated and constantly creates difficulties to accountants. Because the method of calculating the depreciation of fixed assets for tax purposes involves an increase of deductible depreciation in the first years of fixed assets' operation, thus decreasing the amount of tax income which has to be paid in the first years and postponing these payments in the subsequent years, this method can be considered a "tax facility".

According to Article 5 (33) of the Tax Code [4], a tax facility is considered "tax yet not paid up to the budget, causing a decrease of the taxed object value or postponing the period of taxes". But,

unlike other tax facilities having an optional payment character (Article 8 (1), the letter i) in the Tax Code) [4], the method of calculating depreciation for tax purposes is a "mandatory facility". Currently, the taxpayer hasn't got the right to choose if he does or does not need this facility.

It is clear that, regardless of the method used for the calculation of fixed asset depreciation from its put into operation until the total amount of depreciation, total depreciation deducted from taxable profit would be the same. In the end, the state budget has neither advantage, nor disadvantages by using one or another method of depreciation by taxpayers. Then, why was it necessary to develop such a difficult method for the calculation of depreciation of fixed assets for tax purposes? Unfortunately, this seems to be a rhetorical question so far.

Considering the above, we must mention that the taxpayer should be given the right to choose the calculation method of depreciation for tax purposes: the current method proposed by the Fiscal Code or straight-line method provided by accounting standards. This can be achieved by amending articles 26 and 27 of the Tax Code [4].

We recommend amending Article 26 (1) of the Tax Code with the following content: „The amount of deducted depreciation of fixed assets is calculated by the taxpayer according to:
a) this Article, as well as to Art. 24 and 27 of the Tax Code, or
b) the straight-line method provided by accounting standards and established in the accounting policy.

When choosing one of these two methods of depreciation the taxpayer must apply it to all fixed assets for which depreciation for all subsequent tax periods shall also be calculated. Transition from the method of calculating depreciation under Article 26 and 27 of the Tax Code to the method established by the Accounting Standards will be carried out at the beginning of the tax period by decision of the manager of the enterprise. The tax basis of the group of fixed assets in this case will be equal to the accounted amount according to accounting data".

All business entities from the country as well as consumer co-operative entities will only benefit from the effect of these changes.

A second way of equaling the value of depreciable fixed asset in financial accounting and the value of depreciable fixed asset for tax purposes can be carried out, in author's opinion, by:

- the residual value is not recognized in accounting, or;
- the residual value is recognized for tax purposes.

According to § 4 of NAS „Tangible and intangible assets", „the residual value of an asset is the estimated amount that an entity would currently obtain from at the end of its useful life" [1].

Not recognizing residual value in the accounting. In practice, the residual value for some objects of fixed assets may be insignificant, so it shall be considered equal to zero and therefore, shall not be taken into account in the calculation of depreciation value (§ 20 NAS „Tangible and intangible assets"). Also, IAS norm [6] states that the residual value of an asset shall be considered null, except when:

- a third party pledged to redeem the asset at the end of its usefulness;
- there is an active market for this fixed asset and:
  - the residual amount may be determined by reference to this market;

- if this market will be present at the end of useful life of the fixed asset.

The residual value of the asset is estimated using prices prevailing at the date of acquisition of the asset for a similar asset that has reached the end of its life and was operated under conditions similar to those in which the asset will be used. According to the author, the residual value of the asset cannot be determined with high accuracy. From this point, the residual value may not be recognized in accounting. This approach to the problem does not require amendments to legislation.

Recognition of residual value for tax purposes can be established by amending tax legislation. In this respect, it is recommended to amend Art. 27 (4) of the Tax Code [4] as follows: „The initial tax basis of a fixed asset in the possession of a taxpayer and subject to his ownership right will be determined by its entry cost in accordance with accounting standards minus the residual value". As a result of this modification, the depreciation value of fixed assets in financial accounting and for tax purposes will be equalized. At the same time, it won't be necessary to correct the value basis of fixed assets for tax purposes by residual value of fixed assets cassation as a result of total depreciation in the financial accounting.

The third way to equalize the amount of fixed assets depreciation for financial and tax purposes for the first year of activity regards the calculation of fixed assets depreciation for tax purposes depending on the number of operation months. According to the Tax Code, depreciation of fixed assets for tax purposes is calculated for the whole fiscal year, regardless of the calendar month when the fixed assets has entered into the company. This way will essentially reduce the difference between the depreciation amounts of fixed assets for accounting and tax purposes in the first year of exploitation.

A fourth way to approximate the amount of depreciation of fixed assets financial and fiscal purposes can be achieved by removing some rules for calculating the value basis for each group of fixed assets (for example, correcting the related repair, forced exit of fixed assets etc.). The repair costs of fixed according to article 27 (8) and 27 (9) letter b) of the Tax Code [4] shall be deducted for tax purposes up to 15% of the value basis of the respective group of fixed assets or 15% from the calculated amount of rent (lease) supported during the tax period. In the Regulations [4], it is noted that this size is normative. In 2002-2007, this value, being a standard one has been established in a proportion of 10%, and currently constitutes - 15%. So logically there appears the question: Why the cost for repair is limited and which is the scientific argumentation of the size laid down by the legislation in fiscal years 2002-2007 and since 2007 up to now? The costs which exceed this standard are capitalized, are added to the fiscal value of this group of fixed assets, and shall not be deducted, as they are called renovation costs. This limitation does not take into account the characteristics of the fixed assets to which they relate; the repair costs for a homogeneous group of objects may be relatively higher, for the other group - smaller. For the reasons stated above, we recommend to cancel articles 27 (8) and 27 (9) letter b) of the Tax Code, according to which the repair costs of own fixed assets or used according to the rent (lease) for tax purposes shall be deducted to the extent of 15% of the value basis of the concrete group of fixed assets or of the amount calculated on the rent (lease) incurred during the fiscal period.

The infrastructure of many co-operative entities requires renovation and repairs, and limiting the repair costs for tax purposes is an obstacle to achieve this objective. We believe that limitation of

these costs is unjustified, especially when they are necessary for sustainable operation and for the success of any business and especially of co-operative enterprises.

3. Conclusions

From the above mentioned we conclude that the procedure for determination of depreciation for tax purposes contains so many aspects and limitations, and that unclear and non-univocal moments often lead to the risk of being penalized for incorrect filling of the profit tax declaration as a result of involuntary errors committed in calculations. This procedure is difficult to be carried out as well as to be administered, becoming a burden both for taxpayers and for fiscal authorities. Most frequently, savings obtained by taxpayers as a result of using these "facilities" are exhausted by different fines applied by control bodies for errors in calculations.

For this reason, the existing way for the calculation of depreciation of fixed assets requires improvement.

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