

## THE RATIO BETWEEN REVALUATION AND ADJUSTMENT OF THE BOOK VALUE OF TANGIBLE ASSETS

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**Abstract:** *The revaluation of tangible assets is the accounting operation of this structure whereby the net book value is brought to the level of the fair value. This can be done in two ways: increasing the book value to the level of the fair value or vice versa, decreasing its value. If the revaluation is made in the sense of growth, the change of the book value should be analyzed in terms of its character: stable and permanent. Its permanent character gives us the right to account for the resulting difference in the equity category. Instead, if the growth is judged by the prudence principle as a likely gain, it should not be accounted for. If the revaluation is carried out in the sense of lowering the book value, the nature of the difference should also be analyzed: the reversible nature of the decrease in the book value to be accounted for as a depreciation adjustment or the irreversible nature of the book value decrease to be accounted for in the form of a negative revaluation or depreciation.*

**Key words:** *revaluation of tangible assets, fair value, depreciation types*

### 1. Generalities

Revaluation can be achieved through the business entity's own initiatives (free revaluation) according to the decision-makers' professional judgment or through regulatory acts (regulatory revaluation). It is based on the fluctuations in the fair value of tangible assets. The differences obtained as a result of the revaluation are accounted for as equity. When the revaluation is carried out in the positive sense, it is accounted for by the following accounting record:

Tangible assets	=	Revaluation reserves
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The amount of the recorded revaluation reserves is retained in the balance sheet until the tangible asset that was revaluated is 'realised'. This notion means that the tangible asset has either been sold (the remaining amortized value is higher than the selling

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price), or has been fully depreciated and scrapped. This is imposed by the international accounting rules because, if in the next financial years the revaluation is in the sense of diminishing the book value, the negative difference will be financed from the positive revaluation reserve accounted for in the previous years.

On the other hand, if the value of the difference from the negative revaluation is greater than the value of the positive revaluation reserve accounted for in the previous financial years, the enterprise will have two accounting solutions:

- to present in the balance sheet a negative balance in the account 105 'Revaluation reserves' up to the full depreciation of the tangible asset and its scrapping, after which, if this negative value is maintained, the account will be closed by writing the negative balance value in the expenditure of that financial year; or
- the negative difference is accounted for through the current expenses accounts in the financial year in which the revaluation of the tangible asset is carried out.

The revaluation of tangible assets is regulated, from the accounting point of view, by the accounting reference and the accounting can be made with the help of two procedures:

- simultaneous revaluation of the gross value and the accumulated depreciation;
- revaluation of the net book value only, obtained by subtracting (decreasing) the depreciation value from the input value of the tangible assets.

The adjustment of the accounting value is based on the reversible nature of its diminution in relation to the fair value. The difference between the book value and the fair value is accounted for in the form of depreciation adjustments. Depreciation Adjustment Accounts are rectifying accounts of the input value/accounting value of the tangible assets and they do not appear in the equity category, but their value corrects the input value of the tangible assets. The accounting for the depreciation adjustments is made using the prudence principle, as follows:

- if the book value is greater than the fair value, the difference is treated as a probable loss:

Operating expenses for depreciation adjustments of tangible assets	=	Depreciation adjustments of tangible assets
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- if the book value is less than the fair value, the difference is treated as a probable gain that is not accounted for in order not to report fictitious profits and distribute dividends that may affect the treasury of the enterprise and, implicitly, decapitalise it.

When the book value is appreciated against the fair value or the tangible asset is no longer depreciated, the depreciation adjustments made in the previous financial years are reduced to the amount of the depreciation recorded in the respective financial year or scrapped by the following accounting:

Depreciation adjustments of tangible assets	=	Income from depreciation adjustments of tangible assets
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## 2. An illustrative example. Discussions

An enterprise purchases a work installation at a cost of 300,000 lei, 19% VAT on 01.01.N. The method of depreciation used is the linear one and the standard use time is 5 years. At the end of the first year of operation, the enterprise decides to revalue the work installation by applying the process of revaluing both gross and cumulative depreciation to that date. The new revaluated value is 360,000 lei. At the end of the second year of operation, following a new revaluation, the book value is set at 256,500 lei. This value also represents the fair value of the work installation at that time.

The steps of the revaluation through this process are as follows:

- First year of operation

- determining the book value of the work installation before revaluation:

$$\text{Book value} = 300,000 - 60,000 = 240,000 \text{ lei}$$

- determining the revaluation coefficient (K) of the gross value:

$$K = 360,000 / 240,000 = 1.5$$

- revaluing the work installation and determining the difference:

$$\text{Revaluated value} = 300,000 \times 1.5 = 450,000 \text{ lei}$$

$$\text{Difference from revaluation} = 450,000 - 300,000 = 150,000 \text{ lei}$$

- revaluing the cumulative depreciation and determining the difference:

$$\text{Revaluated value} = 60,000 \times 1.5 = 90,000 \text{ lei}$$

$$\text{Difference from revaluation} = 90,000 - 60,000 = 30,000 \text{ lei}$$

- determining the differences from revaluation:

$$\text{Differences from revaluation} = 150,000 - 30,000 = 120,000 \text{ lei}$$

- determining the new book value after revaluation:

$$\text{The new book value} = 450,000 - 90,000 = 360,000 \text{ lei}$$

- calculating the annual depreciation for the following financial years:

$$\text{Annual depreciation} = 360,000 \text{ lei} / 4 \text{ years} = 90,000 \text{ lei}$$

- recording the acquisition of the work installation:

%	=	Suppliers of assets	357,000
Technological equipment			300,000
Deductible VAT			57,000

- recording the depreciation of the work installation in the first year of operation:

Operating expenses for the depreciation of the assets	=	Depreciation of installations and means of transport	60,000
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- recording the operation from revaluation at 31.12.N:

Technological equipment	=	%	150,000
		Depreciation of installations and means of transport	30,000
		Reserves from revaluation	120,000

- recording the annual depreciation of the work installation in the following years of operation:

Operating expenses for the depreciation of the assets	=	Depreciation of installations and means of transport	90,000
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▪ Second year of operation

- determining the book value at the end of the second year:

$$\text{Book value} = 360,000 - 90,000 = 270,000 \text{ lei}$$

- determining the revaluation coefficient between the book value and the revaluated value:

$$K = 256,500 / 270,000 = 0.95$$

- revaluating the gross value of the work installation as compared to the historical input value:

$$\text{Revaluated value} = 450,000 \times 0.95 = 427,500 \text{ lei}$$

- revaluating the cumulative depreciation of the work installation as compared to the historical depreciation value:

$$\text{Revaluated value} = 180,000 \times 0.95 = 171,000 \text{ lei}$$

- determining the differences from revaluation:

- for gross value =  $450,000 - 427,500 = 22,500$  lei
- for depreciation =  $180,000 - 171,000 = 9,000$  lei
- difference from revaluation = 13,500 lei

- accounting for revaluation in the second year of operation:

Technological equipment	=	%	-22,500
		Depreciation of installations and means of transport	-9,000
		Reserves from revaluation	-13,500

- calculating and recording the annual depreciation of the work installation for future exercises:

Operating expenses for the depreciation of the assets	=	Depreciation of installations and means of transport	85,500
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It is noted that the negative revaluation difference was incurred on the basis of the value of the positive revaluation recorded in the previous financial year. Therefore, this value should not be used until the tangible asset is 'realised'. If the value of the new negative revaluation exceeds the value of the positive revaluation recorded in the previous financial years, the record may be made in the financial statements as follows:

- ❖ the presentation of some reserves from the negative revaluation in the balance sheet, hoping that the work installation will be revaluated again until the end of its period of use and the result of the future revaluations will be positive in order to finance this negative revaluation value; or
- ❖ the presentation of a null value of the revaluation reserves in the balance sheet and the transfer of the negative difference into the profit and loss account.

The following option may also be used: the decrease of the positive balance of the account 105 'Reserves from revaluation' down to the null value and for the remaining negative difference a depreciation adjustment of tangible assets may be made.

We consider that until the scrapping of the work installation at the end of its normal usage period, the enterprise no longer revaluates it, depreciating it annually at a value of 85,500 lei. At the end of the 5th year of operation, the work installation is fully depreciated and the enterprise decides to scrap it ('realise it').

The accounting entry is as follows:

Depreciation of installations and means of transport	=	Technological equipment	427,500
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At the end of its period of operation, account 105 'Reserves from revaluation' shows a positive balance. This value may be used by the enterprise after it is approved by the General Meeting of Shareholders in one of the following directions: increase of the share capital, increase of reserves, incorporation in the reported result, and then used on the usual ways of the 'Reported Result', including the distribution of dividends.

The accounting entry for the use of the positive balance account 105 'Reserves from revaluation' is as follows:

Reserves from revaluation	=	% Paid subscribed capital Reserves Reported result
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The second revaluation process targets only the revaluation of net book value.

At the first revaluation the procedure is as follows:

- cancellation of the depreciation recorded in the first year:

Depreciation of installations and means of transport	=	Technological equipment	60,000
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- determining the book value before revaluation:

$$\text{Book value} = 300,000 - 60,000 = 240,000 \text{ lei}$$

- establishing the fair value of the work installation at the end of the first year of operation at 360,000 lei;
- determining and recording the difference from revaluation:

$$\text{Difference from revaluation} = 360,000 - 240,000 = 120,000 \text{ lei}$$

Technological equipment	=	Reserves from revaluation	120,000
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- calculating and recording the annual depreciation of work installation in the second year:

$$\text{Annual depreciation} = 360,000 \text{ lei} / 4 \text{ years} = 90,000 \text{ lei}$$

Operating expenses for the depreciation of the assets	=	Depreciation of installations and means of transport	90,000
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- determining the book value of the work installation at the end of the second year of operation:

$$\text{Book value} = 360,000 - 90,000 = 270,000 \text{ lei}$$

- establishing the fair value at the end of the second year of operation at 256,500 lei;
- determining the difference from revaluation for the second year of operation:

- book value = 270,000 lei
- fair value = 256,500 lei
- difference from revaluation = 13,500 lei

Technological equipment	=	Reserves from revaluation	-13,500
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From the accounting point of view, the results of the two processes are identical, but while the former presents the history of the gross value and the accumulated depreciation, the latter presents only the annual depreciation basis for future financial years.

Applying one or the other of the two procedures is a matter of professional reasoning, but it also relates to the managerial objectives of the enterprise.

If these fluctuations in the fair value at the end of the first two years of operation were analyzed in the light of the principle of prudence and depreciation adjustments, the accounting for these operations would be as follows:

- at the end of the first year of operation of the work installation the difference presented should be judged as a likely gain and not settled according to the principle of prudence;

- at the end of the second year, the negative difference should be judged as a probable loss and accounted for as an depreciation adjustment, as follows:

Operating expenses for depreciation adjustments of tangible assets	=	Depreciation adjustments of tangible assets	13,500
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The cancellation of the value of the adjustment should be made at the end of the third year because we considered that the work installation is not further depreciated and therefore the adjustment is no longer relevant. Consequently, it must be cancelled.

The accounting entry is as follows:

Depreciation adjustments of tangible assets	=	Income from depreciation adjustments of tangible assets	13,500
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When scrapping the work installation, no further adjustments should be made to the financial statements, as in the case of revaluations.

The use of revaluations or depreciation adjustments to account for the fluctuations of the fair value at the end of a financial year is a matter of professional reasoning, as well as one of interests in a particular position of the financial statements.

### 3. Conclusions

The relationship between revaluation and the adjustment of the value of the tangible assets is highlighted by the fact that revaluations do not directly affect the current result of the year in which they are incurred. Revaluations may affect the financial year only when the revaluated tangible assets are 'realised' (sold or scrapped) as follows:

- the positive value of the reserves from revaluation may be directed to the reported result, and hence, according to the GMS's decision, it may be distributed to the other elements of the equity or dividends; or
- the negative value of the balance of the reserve from revaluation affects the result of the year when the tangible asset to which it relates is 'realised' by passing the negative balance value on other expenses for the exploitation.

The depreciation adjustments directly affect the result of the year when they are incurred either through expenses or through income at their resume or cancellation.

In addition to these accounting aspects, the information provided by the financial statements differs according to the professional judgment of these differences between the book value and the fair value of the tangible assets.

Overall, the revaluation methodology benefits the business enterprise's financial position and situation but, depending on the objectives of the managerial team, the meaning of the difference between these two values, the choice of the accounting method used to account for these differences is only optional in forming the accounting policy adopted by the enterprise.

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