



## ASPECTS REGARDING THE CORRESPONDING BETWEEN ADJUSTMENTS OF FIXED ASSETS IN ACCORDANCE WITH THE ACCOUNTING POLICY MANUAL

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### Abstract

*Value adjustments of property, plant and equipment are the revaluation of fixed assets at fair value following an evaluation process by qualified experts who have specific training and are empowered to report an opinion on the fair value of the assets. The study aims at conceptually assessing the need for adjustments after dividing the fair value reporting of the taxable amount and consolidating the position of the company, reflected by the financial statements, by transmitting current information on the value of the fixed assets. This issue will be the subject of a questionnaire sent to the managers of financial entities, a questionnaire covering the subject field, the results can be disseminated to obtain pertinent conclusions regarding the proposed research model.*

**Keyword:** fair value, fixed assets, financial reporting, adjustment.

**JEL Classification:** M41

### I. Introduction

Accounting policies are an important set of regulations for entities that apply International Accounting Standards and which, based on compliance with accounting

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principles, provide information security and the reporting on a comparable basis of financial information. The accounting principles that have been recognized in IAS 8 refer to the sustainability of the continuity of economic activity between separate reporting cycles by observing the principle of the continuity of methods, the exercise of prudence, respect for the principle of exercise independence, non-compensation and intangibility, and compliance the principle of separate valuation of assets and liabilities. The stated objective of the financial statements is to present users with a fair and accurate view of the financial position, performance and changes in an entity's financial position (Mateş et al. 2011).

The principle of separate valuation implies both separate recognition and disclosure of the actual value of assets and liabilities (Needles, Powers, & Crosson, 2000), (Hendriksen & Breda, 2000). Thus, evaluation has a fundamental significance in offering a true and fair view because all the elements recorded in accounting pass through an „evaluation” process (Lazari, 2017).

Fair value measurement methods are in accordance with IFRS 13, quantified method of estimating the estimated price for the asset's transfer of assets under the terms of identifying the advantages and disadvantages of each transaction because of a transaction or future transaction. The difference between fair value and market value is the scope of the two concepts, with the indication that the fair value includes, in addition to the market value, special value items resulting from the combination of rights over the analyzed assets. By applying the IFRS to the stakeholders' disclosure requirements, there is a direct need to assess fair value and fair value measurement of assets in the financial statements. This is the subject and demands of auditors of companies that are qualified for auditing (Burgstahler et al., 2006).

In the case of the possibility of financial statements to obtain financing or refinancing, issues related to the fair value of fixed assets become a priority, moreover, banking, requiring verification of the veracity of the information through independent experts (Chen et al., 2011).

In the opinion of some authors, fair value promoted by IFRS is a powerful tool that improves the value of reported financial information and increases the attractiveness of the company to potential investors (Florou & Kosi, 2015) and the new changes are intended to bring it in line with international accounting terminology native of the European Union Directives and IFRS (Lazari & Griu-Pislasi, 2015).



## II. Material and method

This research aims to construct a model for the estimation of value adjustments, a model that can be transposed by means of a computer program and incorporated into the accounting program, so as to create premises for testing on confidence intervals of the accounting value and to proceed from this study to trigger the re-evaluation procedure, whenever the indicators proposed by the study signal critical thresholds.

The proposed method has been developed based on a study of more than 100 assets that have been independently tested for the correspondence between book value and market value through the cost - effective replacement cost method.

The study was based on the following assumptions:

*Hypothesis 1.* The fair value of the assets is directly proportional to the evolution of the real estate market on the segment of the analyzed property.

*Hypothesis 2.* Fair value is the direct causal relationship with improvements to the real estate and in the inverse relationship proportional to the depreciation accrued for the asset under review.

*Hypothesis 3.* Fair value is always lower than the tax value that strictly considers the useful life of the asset and the useful life of the improvements.

For the hypothesis testing, a database of analyzed assets was prepared, a basis which was subjected to the statist indexing process and tested based on a set of descriptive statistics on significance, distribution over average, dispersion and correlation coefficients. Data centralization is presented in the table below:

**Table 1-** The centralization of the book value and inventory values of 131 spaces included in study

Space type	No spaces	Inventory value	Surface	Amortized amount	Accounting value
Commercial space	43	11,501,400	5,180	4,408,115	7,093,285
Industrial space	34	18,318,700	7,957	6,502,355	11,816,345
Residential space	4	1,232,400	633	681,560	550,840
Administrative space	50	26,626,900	11,454	9,420,654	17,206,246
TOTAL	131	57,679,400	25,224	21,012,684	36,666,716

Source: author calculations

For the collected data of the 131 assets, they were estimated based on classical computational formulas and professional reasoning, coefficients of physical and moral



wear, and adjustment to the external conditions of the enterprise. The average values obtained for each category of space are centralized in the table below:

**Table 2-** Average calculation of wear coefficients and update rate

Space type	No spaces	Physical wear	Obsolescence	Update rate
Commercial space	43	41.60%	5.81%	1.00%
Industrial space	34	38.32%	5.42%	1.00%
Rezidential space	4	55.52%	9.01%	1.00%
Administrative space	50	38.64%	5.41%	1.00%
TOTAL	131	39.41%	5.53%	1.00%

Source: author calculations

Based on the estimated wear coefficients and update rate, depreciations were calculated individually, after that, the cumulative calculation of the values by type of premises was calculated, the centralization being presented in the table below which also contains information on the gross replacement cost (GRC), agreed by ANEVAR.

**Table 3-** GRC calculation and other depreciation used to calculate fair value

Space type	GRC	Physical depreciation	Functional depreciation	Economic depreciation
Commercial space	12,820,500	5,333,881	435,097	70,514
Industrial space	23,274,225	8,917,952	777,716	135,782
Rezidential space	1,281,825	711,666	51,399	5,188
Administrative space	29,894,940	11,550,120	991,538	173,531
TOTAL	67,271,490	26,513,619	2,255,750	385,015

Source: author calculations

The fair value (FV) was determined by the difference between the gross replacement cost and the amount of depreciation shown in Table 3. Following the determination of the fair value by difference with accounting value, have resulted the



values of the positive and negative adjustments for the 131 fixed assets, according to the table below:

**Table 4-** Calculation of fair value and of adjustments for asset valuation at the balance sheet date

Space type	Accounting amount	FV	Adjustment	+	-
Commercial space	7,093,285	6,981,008	-112,277	427,963	-540,240
Industrial space	11,816,345	13,442,775	1,626,430	1,968,704	-342,274
Rezidential space	550,840	513,572	-37,268	0	-37,268
Administrative space	17,206,246	17,179,751	-26,495	1,268,529	-1,295,024
TOTAL	36,666,716	38,117,106	1,450,390	3,665,196	-2,214,806

Source: author calculations

To test the homogeneity of data series and working hypotheses, the econometric modeling process using the Gretl program for the dependent variable, the adjusted value ( $V^{\wedge}Ajs$ ) was used in relation with the regressors - accounting value (VC), fair value (FV), physical depreciation (UZF) and obsolescence (UZM). The modeling process was based on the smallest squares in two phases, and the model equation is:

$$V^{\wedge}Ajs = -1,00*VC + 1,00*FV$$

(1,92e-07) (1,85e-07)

n = 4, R-squared = 1,000 (standard errors in parentheses)

Statistical tests demonstrate that the model is valid, well-defined, with a statistical significance of 1 (100%) and 'p-value' for dependent variables <0,0001.

**Table 5-** Model 1: TSLS, using the observations 1-4, Dependent variable:  $V^{\wedge}Ajs$ ; Instrumented: VC, FV; Instruments: UZF, UZM

	Coefficient	Std. Error	t-ratio	p-value	Signification
VC	-1,00000	1,92067e-07	-5,207e+006	<0,0001	***
FV	1,00000	1,85059e-07	5,404e+006	<0,0001	***



Table 5- Cont.

	Coefficient	Std. Error	t-ratio
Mean dependent var	362597,5	S.D. dependent var	843418,4
The amount of squares of residues	2,14e-07	Eroarea standard a regresiei	0,000327
Unadjusted R-square	1,000000	Adjusted R-squared	1,000000
F (2, 2)	0,295860	P-value(F)	0,771688
Log-likelihood	-115,5417	Akaike criterion	235,0834
Schwarz criterion	233,8560	Hannan-Quinn	232,3900

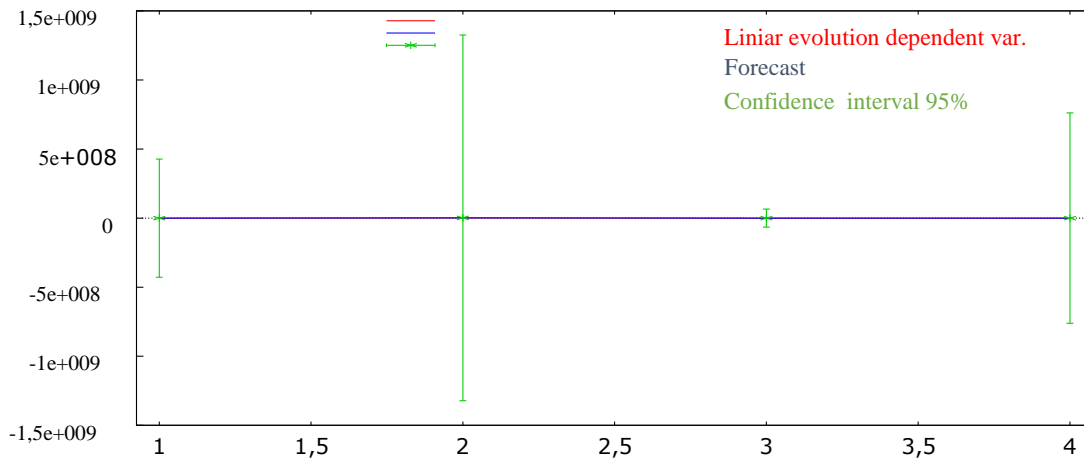
Source: author calculations

Statistical tests demonstrate that in the null hypothesis, heterodasticity is not present, the error is normally distributed and the value of the Weak Instrument - Cragg-Donald test residual value tends to 0.

Pesaran-Taylor Test for Heteroskedasticity: Null hypothesis: heteroskedasticity is not present. Asymptotic statistical analysis:  $z = 0.470194$ ,  $p = 0.638217$ .

Weak instrument test - Cragg-Donald minimum eigenvalue =  $1,56573e-006$

Figure 1- Forecast chart on confidence interval of 95%



Source: GRETL software

The prediction chart shows that the data is distributed over a 95% confidence interval to a measure that is directly proportional to the straightforward prognosis, which



demonstrates that the model assumptions are valid and that the results can be applied in practice on a computer program.

### **III. Conclusions**

The study presents a subject of interest to accountants experiencing an extremely volatile real estate market with various challenges in recognizing and reporting fair value and applying a fair treatment to adjust the value of tangible assets held in the companies' portfolio. The present study has started from the premise expressed by working hypotheses of the direct proportionality of the fair value with the endogenous factors of the entity such as improvements and relocations (eg transformation of an administrative space into individual premises for rent). At the same time, assumptions based on hypotheses refer to the interdependence relationships with exogenous factors such as the trend of the evolution of the real estate market, the dynamics of the prices of the constructions and the other elements that are included in the calculation of the gross replacement cost of the immovable assets. These relationships of interdependence have been demonstrated by statistical tests within the proposed statistical model. In working hypotheses, the premise of the reverse causal relationship between the fair value and the value of the depreciations accounted for based on the accounting amortization calculation was formulated. This relationship was also treated in the statistical model based on variables of physical depreciation and obsolescence, a pattern that generates a high degree of statistical significance, being valid and relevant for testing hypotheses.

The last working hypothesis in the research method was to test the fair value in relation to the amount of tax usually formed from the depreciated gross replacement cost with the calculated physical depreciation, strictly related to the lifetime according to the current catalogs. Thus, by calculating the value adjustments of 131 active assets, it has been demonstrated that the determined fair values are higher than the values generated under the GEV500. The calculation made in the present study reveals that, in most cases, value adjustments are required for the four types of tangible assets - buildings, in an average proportion of 14%, being less affected, in the sense of adjustment residential premises owned by entities, at a rate of 6.77%. Conversely, assets with the highest adjustment exposure are industrial spaces that, according to the study, require positive adjustments of 16.7% and total, positive and negative adjustments of 19.56%. The



category of spaces closest to the overall average are commercial premises, whose +/- adjustment rate is relatively balanced, with total adjustments of 13.65%.

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