

The issue of revaluation of fixed assets

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Modern concepts of accounting development relate to the evolution of the preparation and processing of accounting and analytical information generated within the accounting system of organization. Each economic entity predominantly uses information presented in financial reports involving the value of the enterprise's assets, including information on fixed assets as documentary evidence of its reliability in investment relations to attract potential investors and partners as well as to receive credit financing.

Since fixed assets are an essential component of all assets, improving the efficiency of their use through a qualitative estimation of their value can be considered one of the leading areas of improving accounting of enterprises. However, the real value of certain units of fixed assets can change drastically, which necessitates an annual revaluation. Given possible issues in practical application of international financial reporting standards, introduction of indexation system for self-calculation of coefficients of rapid revaluation of fixed assets (tangible non-financial assets) in the organization is highly important. Certainly, this method requires a professional approach, starting with acquisition, construction or creation of fixed assets.

In this context, this Article Purpose is to substantiate the need to implement an indexation system for each unit (group) of fixed assets of organization, which are subject to interim revaluation in the future, from the very moment of their acquisition.

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Keywords: revaluation of fixed assets; fair value; indexation system; forensic financial and economic analysis; international financial reporting standards.

Research Problem Formulation

There is no doubt that the development of real financial market affects disposition of the common property market, since supply and demand in this market directly depend on the state of economy and financial system of a country. Apparently, prices in this market contribute important information about future development of economy. Without considering factors of the market supply and demand generating the real value of fixed assets (hereinafter referred to as FAs), in particular tangible non-financial assets, the issue of analyzing and determining criteria that can affect the “approximate to the market value” estimation of FAs in conditions of modern financial market is relevant.

In view of the fact that market value of assets, in particular FAs, are quite volatile, such assets need to be revalued, which stipulates paying for services of an appraiser and other costs. For that reason many enterprises try to avoid complex and multi-stage processes of FAs revaluation, thus disregarding legislative requirements.

In simple terms, the question is as follows. In addition to market signals received as a result of purchase and sale transactions at the market, which indicators and criteria in financial accounting can trigger the mechanism for revaluing FAs bringing the price-to-book value of the

latter closer to the market value? Can an accountant or a person financially responsible for implementation of this mechanism, without resorting to valuation service of an independent specialized valuer, independently determine in the enterprise balance sheet the change in the value of fixed assets striving to rich real value?

Analysis of Essential Researches and Publications

The issue of accounting and estimation of FAs has been studied by many scholars¹. Not minimizing the weight of their scientific developments, it should be highlighted that certain issues of the FAs revaluation are still not entirely addressed.

According to some scientists, the development of models and methods for assets management, including FAs, is combined with the development of scholar-practitioner practice and the practice of compiling and drawing up accounting (financial) reporting. The introduction of accounting and compilation of accounting (financial) reporting of international financial reporting standards (*International Financial Reporting Standards (IFRS)*) necessitates issues for developing a methodology for assessing assets from the standpoint of the impact of changed value on indicators of economic efficiency and cost-effectiveness².

- 1 См., напр.: Безверхий К. Особливості переоцінки основних засобів: міжнародний та український досвід. *Бухгалтерський облік і аудит* : наук.-прак. журн. 2016. № 1. С. 11–15 ; Чальї І. Оцінка основних засобів: дві моделі, два образи звітності. *Вісник МСФО*. 2015. № 26. URL: <https://msfz.ligazakon.ua/magazine/900088> (date accessed: 12.12.2021).
- 2 Гонин В. Н., Панченко Е. Ю., Кибирева Е. Б., Номоконова О. А. Підходи к оцінці і переоцінці основних засобів по російським і міжнародним стандартам. *Вісник ЗабГУ*. 2021. Т. 27. № 3. С. 87–98. DOI: 10.21209/2227924520212738798 (date accessed: 12.12.2021).

Results of individual researches prove that adoption of IFRS considerably affects financial indicators³. It should also be stressed that one of the generally accepted goals of the European Union (hereinafter referred to as the *EU*) was adoption of uniform quality standards of accounting designed to improve the function of the capital market, to increase the relevance and reliability of annual reports⁴.

Adding to this thesis, T. E. Horol'skaya, N. V. Eremina, V. S. Gulin stated that acceptance of FAs and disclosure of information on their availability and movement in financial statements must comply with requirements of the current national legislation and international standard. At the same time, the accounting system of FAs should be efficient, generally accepted and understandable⁵.

Some researchers adhere to opinions that those organizations which reporting standards comply with international provisions and rules must entrust only specialized (licensed) valuation companies⁶ with FAs revaluation. However, is it an objective reality in practice?

Article Purpose

This Article Purpose is to justify the need to introduce an indexation system for rapid self-revaluation of FAs (tangible non-financial assets) of an organization within the framework of current legislation rules, taking into account the concept of time value of money, market factors (prerequisites) and signals, as well as related (driven) risks. Thus, when determining market value of the FA company (in the course of financial and economic analysis), the set out approach (as a result of the analysis of financial statements) should give a forensic accountant (financier) the answer to the following question: “*Whether the real value of fixed assets is presented in equity in financial statements of organization?*”.

Main Content Presentation

As an accounting policy, as is known, an organization should choose a model of accounting either at original or revalued value, with subsequent application of adopted policies for the entire FA class.

- 3 Goodwin J., Ahmed K., & Heaney R. The effects of international financial reporting standards on the accounts and accounting quality of Australian firms: A retrospective study. *Journal of Contemporary Accounting & Economics*. 2008. Vol. 4. Is. 2. Pp. 89–119. DOI: 10.1016/S1815-5669(10)70031-X (date accessed: 12.12.2021) ; Stent W., Bradbury M., & Hooks J. IFRS in New Zealand: Effects on financial statements and ratios. *Pacific Accounting Review*. 2010. Vol. 22. No. 2. Pp. 92–107. DOI: 10.1108/01140581011074494 (date accessed: 12.12.2021) ; Voulgaris G., Stathopoulos K., & Walker M. IFRS and the use of accounting-based performance measures in executive pay. *The International Journal of Accounting*. 2014. Vol. 49. Is. 4. Pp. 479–514. DOI: 10.1016/j.intacc.2014.10.001 (date accessed: 12.12.2021) ; Lueg R., Punda P., & Burkert M. Does transition to IFRS substantially affect key financial ratios in shareholder-oriented common law regimes? Evidence from the UK. *Advances in Accounting*. 2014. Vol. 30. Is. 1. Pp. 241–250. DOI: 10.1016/j.adiac.2014.03.002 (date accessed: 12.12.2021).
- 4 Cheikh Rouhou N., Ben Mrad Douagi F. W., Hussainey K., & Alqatan A. The impact of IFRS mandatory adoption on KPIs disclosure quality. *Risk Governance and Control: Financial Markets & Institutions*. 2021. Vol. 11. Is. 3. Pp. 55–66. DOI: 10.22495/rgcv11i3p4 (date accessed: 12.12.2021).
- 5 Хорольская Т. Е., Еремина Н. В., Гулин В. С. Особенности оценки и переоценки объектов основных средств. *Естественно-гуманитарные исследования : междунар. журн.* 2021. № 36 (4). С. 332–337. DOI: 10.24412/2309-4788-2021-11320 (date accessed: 12.12.2021).
- 6 См., напр.: Леонова О. И. Переоценка основных средств в бухгалтерском учете и ее влияние на данные налогового учета. *Аудит и финансовый анализ*. 2015. № 1. С. 51–57. URL: https://auditfin.com/fin/2015/1/fin_2015_11_rus_02_06.pdf (date accessed: 12.12.2021).

Original value of FA (tangible non-financial assets) is determined on the basis of actual costs for acquiring or construction (including duties and non-recoverable taxes), delivery, should be brought up to date (construction and manufacture of FAs), dismantling and destruction of the FA, remediation of site occupied by the FA, as well as other costs provided in IAS 16 *Fixed Assets*. At the time of fixed assets registration, as a rule, its original value is as close as possible to real, but with the passage of time original cost will no longer comply with the real one.

For example, paragraph 43 of Guidelines on accounting of fixed assets of the Russian Federation prescribes to use one of two methods, that is, groups of homogeneous items of FAs should be revaluated at current (replacement) value either by *indexing*, or by *directly recalculating* according to documented market value. If a company chooses to reevaluate the first method, it will have to independently develop indexes (which is rather laborious) or use indexes already developed by state statistical agencies⁷. However, in practice indicated indexes have not been developed sufficiently by state statistical agencies. The second method of revaluation differs in the fact that FAs replacement value is established through direct recalculation of value of individual assets at the date of revaluation at their documented market prices.

In accordance with the above Guidelines of the Russian Federation, when

determining the current (replacement) value, the following can be used:

- data from organizations on prices for similar products;
- statistics on the level of prices in corresponding state organizations;
- information on the level of prices in the specialized literature;
- valuation reports and forensic reports on similar FAs, etc.

Particular attention should be drawn to the fact that the above approaches and provisions are not applicable to preparation of accounting (financial) statements for 2022.

Thus, according to the Order of the Ministry of Finance of Russia No. 204Н dated September 17, 2020:

“12. When being recognized in accounting report, fixed assets item is valued at original value. <....>

13. After recognition, fixed assets item is valued in the accounting report in one of the following ways: a) at original value; b) at revalued value.

14. When valuating fixed assets at original cost, such a value and amount of accumulated amortization are not subject to change, except in cases stipulated in this Standard.

*15. During valuation of fixed assets at revalued value, the value of fixed assets is regularly revalued in such a way that it is equal to or not differ substantially from their fair value [here and hereinafter — **Author’s note**]. For purposes of this Standard, fair value is determined in the manner provided for by the International Financial Reporting Standard (IFRS) 13 “Valuation of fair value”⁸.*

7 Методические указания по бухгалтерскому учёту основных средств : утв. приказом Минфина РФ от 13.10.2003 г. № 91н (с изм. и доп.). URL: <https://base.garant.ru/12133295> (date accessed: 12.12.2021).

8 Об утверждении Федеральных стандартов бухгалтерского учёта ФСБУ 6/2020 «Основные средства» и ФСБУ 26/2020 «Капитальные вложения» : приказ Минфина РФ от 17.09.2020 г. № 204н (с изм. и доп.). URL: https://minfin.gov.ru/ru/document/?id_4=133528-prikaz_minfina_rossii_ot_17.09.2020__204n_ob_utverzhdenii_federalnykh_standartov_bukhgalterskogo_ucheta_fsbu_62020_osnovnye_sredstva_i_fsbu_262020_kapitalnye_vlozheniya (date accessed: 12.12.2021).

It should be emphasized that application of the above regulatory act (in connection with adoption of Federal accounting standards FSBU 6/2020 *Fixed assets* and FSBU 26/2020 *Capital investments*) is applicable from the 2022 accounting (financial) reporting period. It is worth mentioning that the *market value* term in current IAS 16 *Fixed Assets* and IFRS 13 *Valuation of fair value*, as well as in amendments to other regulatory acts on FAs accounting and valuating, which will come into force on 01/01/2022, is not provided.

It should also be stressed that in the Federal Law (hereinafter referred to as *FL*): *On Evaluation Activities in the Russian Federation* (Article 3 and 7) no amendments are anticipated, since the term related to the market valuation of the asset value is still valid (in law there are also cadastral, liquidation, investment or other estimated values), while the *market value* of FA valuation refers to “*the most likely price, at which this valued item can be disposed in the open market in the context of competition, when transaction parties act wisely having all necessary information, and the price of transaction is not affected by any exceptional circumstances*”⁹.

A similar definition is also provided in the National Standard of Ukraine, where the *market value* term refers to “*value for which disposal of valuation item on the market of such property is possible at the valuation date under agreement concluded between the buyer and the seller, after corresponding marketing, provided that each of parties acted knowledgeably, reasonably and without coercion*”¹⁰ [*Hereinafter – Author’s translation*].

In addition, the *market value* concept is used in relation to the terms: *actual value*, *reasonable value*, *equivalent value*, as well as *real value*. In fairness, let’s emphasize that the formulation of these terms is based on the same generic characteristic, namely proposed sale of an asset. Under the *market value* one can understand the value of the object, which can be reimbursed as a result of its sale at the regional open competitive market, at the date of determining current market value by the forensic expert, manufacturer, organizer of trade, in conditions of information security of transaction participants, in the absence of impact of emergency circumstances, and which the economic entity sets at the date of registration.

According to the majority of experts, the lack of indications on the activity of market should be viewed as setbacks for establishment of current market value, customary nature of transaction and independence of participants. Nevertheless, it is impossible to reliably determine the market value in the absence of an active market, to calculate fair value under the same circumstances or under certain conditions.

In Annex A IFRS 13, definition for the *active market* concept is outlined. It is the market where transactions regarding a certain asset or obligations are carried out with adequate frequency and in sufficient amount to provide information on prices permanently. In the absence of the latter, estimated value may be even less valid. Therefore, a natural question can be asked: “*Does identification of the two above-mentioned concepts “fair value” and “market*

9 Об оценочной деятельности в Российской Федерации : Федеральный Закон от 29.07.1998 г. № 135-ФЗ (с изм. и доп.). URL: <http://pravo.gov.ru/proxy/ips/?docbody=&nd=102054672> (date accessed: 12.12.2021).

10 Національний стандарт № 1 «Загальні засади оцінки майна і майнових прав» : затв. Постановою КМУ від 10.09.2003 р. № 1440 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/1440-2003-%D0%BF#Text> (date accessed: 12.12.2021).

value” takes place?” It seems that this question is inappropriate, since current market value can only be determined if there is active market, and fair value – in any case.

Summarizing the above, it is possible to outline findings as to the fact that currently IFRS does not include the *market value* concept, but it applies the concept of *fair value*, which content is very close to the definition of *market value* in accordance with legislation on valuation activities. At the same time, *market value* in most cases will differ from *fair value* in the way that two of these concepts have different characteristics, therefore when outlining their meaning, several other action mechanisms are recommended. However, (based on guidelines of relevant standards) it is believed that the *fair value* indicator most accurately reflects objective value of FA items.

Concerning analysis of fair value estimation, the following should be emphasized.

In national provisions (standards) of Ukraine’s accounting *fair value* is defined as “*amount at which you can sell an asset or pay for obligations under normal conditions for a particular date*”¹¹.

According to T. Hohol, the method of fair value estimation is designed to determine

the market value of property specifically to provide objective information to external users who evaluate the real financial condition of the enterprise and make economic decisions to cooperate with it¹².

In IAS 16 *Fixed Assets* the following is stipulated: “*After recognizing the item of fixed assets as an asset, it should be accumulated at its original value less the amount of accumulated amortization and accumulated devaluation losses. <...> Revaluation should be carried out frequently to prevent significant differences in the book value and the one that would be determined using the fair value as at the end date of the reporting period*”¹³.

For cases when valuation at fair value or information disclosure on fair value estimates require or permit other IFRS, for example, IAS 16 *Fixed Assets*, IFRS 13 *Valuation of fair value* (paragraph 31 and 77) can be applicable.

It should be stressed that IFRS 13 *Valuation of fair value* defines the concept of *fair value* (p. 24) as the value, “*which would be obtained when selling an asset or paid when transferring liability during straightforward transaction at the main (or most profitable) market at the date of valuation in current market conditions (that is, value of output), regardless of whether such value is directly observed or calculated using another valuation method*”¹⁴. That is, the concept of fair

- 11 Національне положення (стандарт) бухгалтерського обліку в державному секторі 121 «Основні засоби»: затв. наказом Міністерства фінансів України від 12.10.2010 р. № 1202 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/z1017-10#Text> (date accessed: 10.12.2021); Національне положення (стандарт) бухгалтерського обліку 7 «Основні засоби»: затв. наказом Міністерства фінансів України від 27.04.2000 р. № 92 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/laws/show/z0288-00#Text> (date accessed: 10.12.2021).
- 12 Гоголь Т. Концепція справедливої вартості в бухгалтерському обліку: наслідки для підприємств малого бізнесу. *Бухгалтерський облік і аудит*. 2012. № 6. С. 32–39.
- 13 Международный стандарт финансовой отчётности (IAS) 16 «Основные средства»: введ. в действ. приказом Минфина РФ от 28.12.2015 г. № 217н (с изм. и доп.). URL: https://m.minfin.gov.ru/ru/document/?id_38=117365-mezhdunarodnyi_standart_finansovoi_otchetnosti_ias_16_osnovnye_sredstva (date accessed: 12.12.2021).
- 14 Международный стандарт финансовой отчётности (IFRS) 13 «Оценка справедливой стоимости»: введ. в действ. приказом Минфина РФ от 28.12.2015 г. № 217н (с изм. и доп.). URL: https://minfin.gov.ru/common/upload/library/2016/02/main/RU_BlueBook_GVT_2015_IFRS_13.pdf (date accessed: 12.12.2021).

value in accordance with IFRS 13 is more accurate, since it determines:

- 1) the value but not the amount, which means: transaction is carried out at the market;
- 2) asset sale, and not exchange, which is also inherent in the active market;
- 3) that this is orderly operation, and not just an operation;
- 4) transaction is carried out between market participants, that is, by buyers and sellers;
- 5) valuation date, that is, the date when the operation is performed.

Consequently, this definition of fair value is aimed at the active market¹⁵.

In view of the foregoing and in accordance with IFRS 13, the fair value (no matter what approaches are used to determine its value) is a value corresponding to the amount that, in particular, would be obtained while orderly transaction.

At the same time, we should adhere to the view of E. V. Sluckij who believes that valuation at fair value does not reflect future economic benefits, but predicts them in modern conditions of the active market.

The scholar also highlights that fair value in different markets and under various economic conditions will vary and, as a result, financial statements on

international and national standards¹⁶ will also be different.

Thus, according to the key provision of paragraph 16 of IFRS 13, fair value measurement stipulates that transaction is carried out at the *main market* or (in the absence of the latter) at *the most profitable market*¹⁷. Therefore, valuation purpose is to ensure that values presented in a company's financial statements correspond to fair value existing at the time of revaluation.

Regarding frequency of FAs revaluation (tangible non-financial assets), it should be pointed out that in accordance with the Order of the Ministry of Finance of Russia No. 204Н dated 17.09.2020, organization applies it for each group of revaluated FAs, based on to what extent the fair value of such FAs is subject to change.

In accordance with Guidelines on fixed assets accounting approved by the Order of the Ministry of Finance of Ukraine No. 561 dated 30.09.2003, a company may revalue a FA if residual value of an item differs significantly from its fair value at the balance sheet date. When revaluating a FA at the same date, all items of the FA group to which this item belongs are revalued. A group of FAs is considered a combination of same-type according to technical specifications, purpose and conditions for use FA items¹⁸.

15 Іващенко І. М. Визначення справедливої вартості при перевірці необоротних активів на зменшення корисності. *Науковий вісник Херсонського державного університету*. 2015. Вип. 13 (3). С. 142–145. URL: http://www.ej.kherson.ua/journal/economic_13/120.pdf (date accessed: 10.12.2021).

16 Слущкий Є. В. Розробка алгоритму оцінки за справедливою вартістю нефінансових активів при первинній стадії життєвого циклу основних засобів. *Причорноморські економічні студії*. 2017. Вип. 17. С. 247–253. URL: http://bses.in.ua/journals/2017/17_2017/50.pdf (date accessed: 10.12.2021).

17 Международный стандарт ... 13 «Оценка справедливой стоимости» URL: https://minfin.gov.ru/common/upload/library/2016/02/main/RU_BlueBook_GVT_2015_IFRS_13.pdf (date accessed: 12.12.2021).

18 Методичні рекомендації з бухгалтерського обліку основних засобів : затв. наказом Міністерства фінансів України від 30.09.2003 р. № 561 (зі змін. та допов.). URL: <https://zakon.rada.gov.ua/rada/show/v0561201-03#Text> ((date accessed: 10.12.2021)).

In paragraph 34 of IAS 16 *Fixed Assets* it is similarly stipulated that frequency of revaluation depends on the change in fair value of revaluated FA items. If fair value of the revalued asset differs significantly from its book value, additional revaluation is required¹⁹. Consequently, revaluation of FAs should be performed by recalculating their initial cost and accumulated depreciation so that the book value of an FA is equal to its fair value after revaluation.

To ensure the highest sequence and comparability of fair value estimates and information disclosed with reference to them, IFRS 13 *Fair Value Measurement* introduces a fair value *hierarchy* that involves grouping of inputs included in the evaluation methods used to estimate fair value, according to three levels. That is, inputs have a three-level classification in the fair value hierarchy. Under this hierarchy, the greatest priority has price quotations (uncorrectable) of active markets for identical assets or liabilities, to which organization has access at the evaluation date (the highest level of observed inputs is 1), and further decreases to the lowest priority (the level of non-observed inputs: 3)²⁰.

For level 1 for assets or liabilities, first of all, the emphasis is on the main market, or on the most profitable market for this asset or liability, and at the next stage the following question is raised: “*Can an organization make a deal with regard to this asset or liability at the price of this market?*”. Under level 2, inputs are directly or indirectly observed in respect of the asset or obligation, excluding

data of level 1. With regard to level 3, inputs on asset or liability are unobservable. Thus, revaluation of FA value (tangible non-financial assets) is deemed to be complex, multi-stage process requiring development of professional judgment in experts in the field of valuation and accounting.

Returning to review of the revaluation function, first of all, it is required to proceed from the assertion that revaluation of the FA value is carried out to equalize discrepancies between the book value and the current (replacement) value. It should be stressed that aforementioned accounting phenomenon at the time of accepting accounting objects and later can be confronted by interim rapid revaluation of at least large FA items.

The revaluation process presupposes both advantages and disadvantages that can be presented in the table mentioned below.

Taking into consideration one of essential advantages of revaluation, for example, efficiency of company activities based on financial leverage, it is worth mentioning that the latter positively affects the decision of FA revaluation, since revaluation increases asset value. In general, it should be emphasized that credibility of the creditor in provision, if necessary, of the desired / required creditworthiness increases through strengthening a number of financial coefficients. Quite logically, that low liquidity companies are interested in revaluation, since it contains more up-to-date information on the amount of funds received from FAs sale, and therefore helps to increase a company's creditworthiness²¹.

19 Международный стандарт ... 16 «Основные средства» URL: https://m.minfin.gov.ru/ru/document/?id_38=117365-mezhdunarodnyi_standart_finansovoi_otchetnosti_ias_16_osnovnye_sredstva (date accessed: 12.12.2021).

20 Международный стандарт ... 13 «Оценка справедливой стоимости» URL: https://minfin.gov.ru/common/upload/library/2016/02/main/RU_BlueBook_GVT_2015_IFRS_13.pdf (date accessed: 12.12.2021).

21 Solikhah B., Akuntansi FE, Hastuti Sri, Asrori, Budiyo I. *Fixed Assets Revaluation to Increase Value Relevance of Financial Statements. Journal of critical reviews*. 2020. Vol. 7. Is. 5. Pp. 589—594. URL: <http://lib.unnes.ac.id/id/eprint/43202> (date accessed: 12.12.2021).

Table 1

Advantages and disadvantages of fixed assets revaluation

Revaluation advantages	Revaluation disadvantages
Enables to increase assets of an organization and, accordingly, equity	True value of an economic entity's equity varies when bringing the assets value to the real value
Allows (with the use of a new accounting policy in relation to FAs) more reliably and accurately reflect financial performance of a company	Attractiveness of reporting is reduced while valuation according to profits and return on assets
Attractiveness of reporting is increased when evaluating efficiency of a company at the cost of net assets and at financial leverage	Owners evaluate this method negatively, since due to an increase in amortization charges and a decrease in profits, dividends per share decrease
Fair value implementation contributes to an increase in the value of shares in a company, which owners view positively	Major difficulties with budgeting, in particular performing an annual test on asset impairment (provision for the test of IFRS 36), as well as challenges in assessing future inflows and outflows, which are based on a company's financial forecasts
Influence of fixed assets revaluation results documented and reflected in ledgers on financial performance indicators of an economic entity, including its financial stability	The necessity of introducing a simultaneous double entry accounting of FAs with revaluated and original value, as a result oftentimes leadership should involve independent specialized valuers and as a result: enhancing work intensity. Lead to increase and decrease of financial results of amortization charges on revaluated item, being an element of cost component. In the course of revaluation organization can be on the verge of bankruptcy while significant decrease of FA value

Either way, but financial managers of companies should mindfully approach the issue on assets revaluation, in particular FAs, which is one of essential

components of a company's cost management and, in turn, contributes to the adoption of proper management and economic decisions.

Comparing all conditions and peculiarities of the formation of FA valuation in accordance with IFRS 13, when choosing a market, the seller does not need to perform extensive monitoring of all markets, since the standard takes into account interests of market participants and enables to form a basis for a specific asset or the main market, or the most profitable market. This approach is deemed to be the most accurate against the background of all types of open and hidden factors that can affect price formation. It is required that a company takes into account current situation at the market, where there is a potentially formed demand (supply) for a particular FA, which, in turn, is also an obligatory information basis for evaluation. As for risk evaluation, then when performing such a procedure, a company can assess the influence of the market situation of each risk on the price of asset or liability and adjust the fair value to a corresponding size of the bid-ask spread generated by this risk.

The use of IFRS 13 with respect to tangible non-financial assets is proposed to be considered as follows: a company should evaluate the fair value of the non-financial asset, based on assumption of its best and most efficient use by market participants, considering: a) asset physical characteristics b) legal constraints on the asset use c) the ability of an asset to generate enough revenues or cash flows.

Organization should use valuation methods for which sufficient data is

provided for fair value estimation to assess the value at which ordinary transaction on asset sale or transfer liability would be implemented between market participants at the date of evaluation in current market conditions. According to IFRS 13, there are the following evaluation methods: 1) *market*; 2) *cost*; 3) *profitable*. It is well known that application of each method has certain peculiarities:

- for the first one, prices based on results of market transactions associated with similar assets or liabilities are used;
- for the second one, the amount that would be required at the moment of replacing the asset operating capacity is reflected;
- for the third one, fair value estimation reflects the current market expectations regarding future cash flows or incomes and expenses.

In accordance with IFRS 13, applied methods and approaches used to estimate fair value should be mandatory listed (disclosed) when reporting, as well as additional descriptive information about market data should be specified.

In conclusion, major problems in practical application of IFRS 13 provisions are as follows:

- defining boundaries of the main or most profitable market to consider values of fixed assets;
- most items that are subject to fair value estimation are not for sale;
- when applying a market approach: identification of similar assets (obligations) for FAs for which fair value is estimated;
- lack of precise guidelines for the use of techniques (indicating

information sources) in IFRS 13 for calculating fair value;

- possible discrepancy with IFRS 13, since evaluation standards (both international and domestic) have nothing to do with financial statements. In addition, there are no requirements for determining fair value (in evaluation standards, the determined value is considered to be a market value).

Methodology for establishing indexation system

In view of problems with practical application of IFRS 13 provisions, while developing domestic analogue of the indicated standard, particular attention should be drawn to regulation of approaches to fair value.

It is believed that at the main (the most profitable) market, not only market supply and demand should determine FAs *fair value*: according to IFRS 13, the fair value is a value based on market data, but not a value specific to a company. Between revaluation (if necessary and on own initiative) procedures fair value can also be calculated according to coefficients applicable to cost expenditures for construction (building), creation (manufacture) or the purchase of FAs: that is, through coefficients that can be applied to already deducted current replacement value using the cost approach.

It is common knowledge that the cost approach implements the principle of

substitution: the buyer is not willing to pay more for the product than for a similar evaluated product with the same useful consumer characteristics. At the same time, new FAs are used for comparison, and the calculation result is the full or maximum value of reproduction. That is, it can be noted that this is the maximum value obtained from the total cost of acquisition, construction or creation of new individual parts or components of this FA. It is also worth noting that the cost approach is not applicable to land valuation.

The mentioned coefficients can be calculated by introducing a special indexation system which should take into account the concept of money time value, market forces (prerequisites), signals, as well as microeconomic factors and particular risks. Such indexation system should be easy to use to be accessible, in particular to a company's chief accountant, forensic economist and valuer and specialized valuers.

Upon receiving FAs valuation results calculated using the cost approach, coefficients obtained through the indexation system can be applicable to current replacement value so that the value obtained is compatible with the already determined fair value obtained from the main (or most profitable) market.

After analyzing major specialized scientific and economic publications and electronic resources, indexation system as a whole can be represented as follows (*see Table 2*).

Table 2

Main information sources for indexation system

Information sources about real estate	Information source about movable FAs (vehicles, machines, production lines, equipment, devices, computer equipment, etc.)
Regulatory support for cadastral valuation: zoning coefficients, basic value of square meter of a building or land plot	The Federal Taxation Service (State Revenue Committee): information on the basis of requests for tax base of real estate, as well as values specified in import customs and tax returns, FA prices in accounting documents written off by other companies
The Unified State Real Estate Register: extracts on cadastral value of the real estate object	International or regional trading Internet sites (<i>Amazon, Alibaba, Ebay, TMall, Etsy, Europages, Aliexpress, BBP</i> , etc.): information on prices of official representatives (sellers)
The Federal State Statistics Service (Statistics Committee): publications about real estate price indexes, on market average prices for residential buildings, apartments in apartment houses, building land (by cities and districts, by years or months, etc.)	Official information sites of engineering and computer technical companies: information on prices for cars and equipment, industrial and production equipment or repair and re-equipment and refurbishment, etc.

As mentioned above, indexation system should be based on the analysis of the influence of market factors (prerequisites) and signals, since the fair value is measured by taking into account all factors, including prospects for assets development and market conditions at the evaluation date.

When analyzing observed market data, from *the perspective of real estate market*, the cost of real estate objects is influenced by the location of these objects (for example, urban district,

mountainous area or away from the city/district). Clearly, the real estate market is the market of imperfect competition, since demand in it is limited and infrequent, terms of transaction are individual, parties are not interested in distributing information about it, what is more, the market is characterized by low liquidity, and criteria of maximum investment attractiveness are applied. For example, prices on commercial real estate usually affect both terms of disposal and the following factors:

terms of sale and transmitted rights, area, purpose and layout, material of major constructions, facility technical condition, as well as the infrastructure, proximity of main transport highways, transport and pedestrian accessibility, availability of a number of similar objects, etc.

During the analysis of observed market data from the *perspective of movable property market* (transport, machinery, equipment, etc.), the cost of objects is influenced both by terms of disposal and the following factors: terms of sale and transferred rights, availability of required guidelines and technical documents, conditions of operation and transportation, demolition-installation of machines and equipment, wear (physical wear), compliance of the actual condition with technical documents, constructions material, manufacturing company (domestic or foreign), liquidity, etc.

The following *microeconomic factors* also affect the value of objects: overall economic situation in the district, pace of its development, as well as the degree of revival of manufacturing output and an increase in investment activity in specific fields (considered with the help of relevant coefficients).

Among *certain risks*, it is possible to include the following: price (fall in prices in the market), investment (risk of depreciation of investments), currency (expressed as possible monetary losses of the property price caused by a change in currency exchange rate), as well as liquidity (the less potential buyers of the object, the lower is liquidity).

To the current replacement cost, if we consider it as replacement maximum

value, coefficients that either multiply or reduce (range [0; 1]), or increase the value terms (greater than 1) must be implemented. Using the suggested indexation system, from the perspective of obtaining coefficients, it should be assumed that the specified function should be unique for each FA.

Let's provide an example of applying the above guidelines. Let's create indexation system proceeding from the following conditional input data: according to accounting documents, 8 years ago a company purchased new production equipment, mounted it and put into operation. At the end of the reporting year, it is required to conduct an interim rapid revaluation of the object, but without involving a licensed specialist or a forensic expert.

Analyzing indexes of considered values of 20 conditional criteria, the latter can be grouped under three ways:

- 1) terms of disposal (1/2 on the number of criteria values);
- 2) macroeconomic factors (1/4 of the number of criteria values);
- 3) related (driven) risks (1/4 of the number of criteria values).

Thus, each criterion is equal to the 5 % value of the total number of criteria. The mechanism action for introducing the indexation system is shown in Table 3 and can be implemented according to the following equation:

$$RV(1) = RV(2) \times (DT + MF + RR) / 1000 \quad (1),$$

where:

$RV(1)$ – revalued value;

$RV(2)$ – replacement value;

DT – disposal terms;

MF – macroeconomic factors;

RR – related (driven) risks.

Table 3

Example of introducing indexation system to obtain coefficients of fixed assets revaluation

Conditional criterion	Criterion meaning	Coefficient calculation
Purchase value	\$8000	
Operating time	8 years	
Accrued depreciation	\$6400	
Replacement value	\$7600	
Disposal terms (quantity: 10)	depreciable value— 20 (100 – 80) %; terms of sale and transferable rights to an object — 70 %; required title and technical documents — 55 %; operating conditions for machinery and equipment — 45 %; conditions of transportation, demolition-installation — 35 %; functional obsolescence (depreciation) — 55 (100 – 45) %; loss of cost-utility (depreciation) — 65 (100 – 35) %; compliance with actual state of technical documents — 65 %; material of object design — 55 %; manufacturer (domestic or foreign)— 45 %	(20 + 70 + 55 + 45 + 35 + 55 + 65 + 65 + 55 + 45)
Macroeconomic factors (quantity: 5)	State of the main market — 10 %; Economic situation in a region — 40 %; pace of region development — 30 %; degree of production intensification — 20 %; increase in investment activity — 25 %	(10 + 40 + 30 + 20 + 25)
Related (driven) risks (quantity: 5)	Price risk — 70 (100 – 30) %; investment risk — 45 (100 – 55) %; currency risk — 75 (100 – 25) %; liquidity risk — 55 (100 – 45) %; asset outlook — 5 (100 – 95) %	(70 + 45 + 75 + 55 + 5)
Revaluated value	\$6726 = \$7600 (replacement value) × 0,885 (coefficient)	Coefficient 0,885 = (510 + 125 + 250) / 1000

In conclusion, revaluated value of FA item purchased 8 years ago at a price of \$8,000, with a replacement value of \$7,700 at the time of revaluation amounted to \$6,726.

An analysis of the meaning of certain criteria indicates that indexes of significance criteria in the suggested system should be compared with indicators adjusted during previous system maintenance to consolidate a corresponding reduction or an increase.

Conclusions

Therefore, given problems of practical application of IFRS 13, introduction of indexation system to obtain coefficients of rapid self-revaluation of FAs (tangible non-financial assets) of a company is currently relevant. It is also obvious that the proposed methodological approach (compared to the function of the multi-stage revaluation process) requires relatively minimal actions based on professional judgment and, on the contrary, is time-consuming in the sense that it should be applied to each object, starting from purchase, construction or creation of such a FA.

It is important to note that in terms of efficiency of coefficients use for rapid self-revaluation of FAs, the suggested indexation system should be implemented for each unit (group) of the FA company being subjected to interim revaluation in the future, from the very moment of its purchase. In this case, only an analysis of the indexes of significance of the above-mentioned criteria is possible to finally record their corresponding decrease or increase in the running indexation system while interim periods.

To summarize the above, it should be emphasized that practical application of the suggested method for studying the real value of assets and signs of insolvency in an organization by a forensic accountant (financier) during financial and economic analyses is quite feasible, which is illustrated by the provided examples.

Питання переоцінки основних засобів

Карен Маміконян

Сучасні концепції розвитку бухгалтерського обліку пов'язані з еволюцією підготовки й оброблення обліково-аналітичної інформації, що генерується у межах облікової системи організації. Кожен суб'єкт господарювання здебільшого використовує відображену у фінансовій звітності інформацію, яка стосується вартості активів підприємства, зокрема — інформацію про основні засоби як документальний доказ своєї надійності в інвестиційних відносинах з метою залучити потенційних інвесторів і партнерів (зокрема, для отримання кредитного фінансування).

Оскільки основні засоби є істотною складовою всіх активів, підвищення ефективності їх використання шляхом якісної оцінки їх вартості можна вважати одним із провідних напрямів удосконалення бухгалтерського обліку підприємств. Проте реальна вартість деяких одиниць основних засобів може значно змінюватися, що потребує проведення щорічної переоцінки. Зважаючи на можливі проблеми у практичному застосуванні міжнародних стандартів фінансової звітності, запровадження системи індексації для власноручного вираховування коефіцієнтів

експреспереоцінки основних засобів (матеріальних нефінансових активів) організації є вельми актуальним. Очевидно, що цей метод потребує професійного підходу, починаючи з придбання, спорудження чи створення об'єктів основних засобів.

У цьому контексті метою цієї статті є обґрунтування необхідності впровадження системи індексації для кожної одиниці (групи) основних засобів організації, що підлягають проміжній переоцінці в майбутньому, починаючи з моменту їх придбання.

Ключові слова: переоцінка основних засобів; справедлива вартість; система індексації; фінансово-економічна експертиза; міжнародні стандарти фінансової звітності.

Вопросы переоценки основных средств Карен Мамиконян

Современные концепции развития бухгалтерского учёта связаны с эволюцией подготовки и обработки учётно-аналитической информации, генерируемой в рамках учётной системы организации. Каждый хозяйствующий субъект в основном использует отражённую в финансовой отчётности информацию, которая касается стоимости активов предприятия, в частности — информацию об основных средствах как документальное доказательство своей надёжности в инвестиционных отношениях с целью привлечь потенциальных инвесторов и партнёров, в том числе для получения кредитного финансирования.

Поскольку основные средства составляют существенную долю всех активов, то повышение эффективности их использования путём качествен-

ной оценки их стоимости можно считать одним из ведущих направлений усовершенствования бухгалтерского учёта предприятий. Однако реальная стоимость некоторых единиц основных средств может значительно изменяться, что нуждается в проведении ежегодной переоценки. Учитывая возможные проблемы в практическом применении международных стандартов финансовой отчётности, внедрение системы индексации для самостоятельного вычисления коэффициентов экспрес-переоценки основных средств (материальных нефинансовых активов) организации весьма актуально. Очевидно, что данный метод нуждается в профессиональном подходе, начиная с приобретения, сооружения или создания объектов основных средств.

В этом контексте целью настоящей статьи является обоснование необходимости внедрения системы индексации для каждой единицы (группы) основных средств организации, подлежащих промежуточной переоценке в будущем, начиная с момента их приобретения.

Ключевые слова: переоценка основных средств; справедливая стоимость; система индексации; финансово-экономическая экспертиза; международные стандарты финансовой отчётности.

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The author declares that he has no conflict of interest.

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