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Challenges of the Practical Application of International Accounting Standard on Property, Plant and Equipment by Russian Companies

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Abstract: This study examines the problems of application of regulations of International Accounting Standards (IAS) on property, plant and equipment in the Russian practice. The researchers reviewed the consolidated financial statements of 40 largest Russian companies of non-financial sector, reported for 2013-2015. As a result, the most common options for property, plant and equipment accounting under IAS, chosen by the majority of Russian companies were revealed. Also, the main problems arising from the acceptance and subsequent accounting of property, plant and equipment according to IAS in the Russian practice are defined in the study. The researchers have proved proposals for addressing the identified problems.

Key words: Property, plant, equipment, fair value, cost model, revaluation model, impairment of assets, depreciation, measurement, accounting

INTRODUCTION

The IFRS advisory council studies the consequences of effects of adopted standards and defines the priorities for the development of new standards. Therefore, it is very important to analyze the practical application of IAS. Currently, many Russian companies are obliged to prepare financial statements not only according to national but also according to international standards. In this regard, the analysis of the practical application of IAS by Russian companies and the problems associated with the application is very important.

Analysis of the scientific literature shows that similar issues are being raised by scientists in other countries. So, for example, Costa and Oliveira (2015) disclosures about property, plant and equipment in accordance with IAS 16 by companies listed on the Euronext Lisbon. Hlaing and Pourjalali (2012) analyze the choice of models of evaluation of property, plant and equipment in accounting of US companies. Petrovic *et al.* (2016) consider changes in property, plant and equipment on the basis of the experience of the United Kingdom. Antunes and Moore (2013) offer to study the application of IAS 16 on the example of a Canadian firm. Wang *et al.* (2015) consider the impairment of assets in the Taiwan listed electronics industry. Bond *et al.* (2016) as well as Zhuang study the impairment of assets of Australian companies. Penner *et al.* (2016) compare requirements for accounting of impairment of non-current assets in US GAAP and IAS.

In the scientific literature, selected issues related to accounting of property, plant and equipment in accordance with IAS are also studied. So, Bozzolan *et al.* (2016) analyze amendments to IAS 16. Akhmedzyanova *et al.* (2016) study distortion of assets value in preparing the financial statements. Vetoshkina *et al.* (2016) consider accounting for donated real estate. Kulikova *et al.* (2015a, b) analyze problems of applying fair value. Jennergren (2010) considers issues of assessment under discounted cash flow model. Kulikova *et al.* (2015a, b) study the problem of valuation of assets according to the minimal value.

The purpose of this study is to identify the problems of application of IAS for accounting of property, plant and equipment by Russian companies and to conduct a critical analysis of the requirements of these standards from the point of view of practitioners.

MATERIALS AND METHODS

Accounting methodology of property, plant and equipment is approved by the IASB quite long ago when developing IAS 16 property, plant and equipment and then IAS 36 impairment of assets. However, these

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standards are constantly being adjusted by the IASB to improve them. And the current requirements of IAS 16 and IAS 36 still contain a number of open and debating points regarding the methodology of accounting of property, plant and equipment. In addition, relatively recently adopted IFRS 13 fair value measurement which also leads to some issues in the practice in determining the fair value of property, plant and equipment.

Our studies allow to conclude that the main methodological issues of IAS application for accounting of the aforementioned assets for Russian companies are: the choice of depreciation method of property, plant and equipment, the useful life review of these assets, the calculation of the recoverable amount for impairment of property, plant and equipment, the calculation of fair value when using the revaluation model of these assets, the qualification of items as property, plant and equipment, etc.

RESULTS AND DISCUSSION

We have reviewed the consolidated financial statements of 40 largest Russian companies of non-financial sector, reported for 2013-2015. As a result, we have identified the following features and problems of practical application of IAS for accounting of property, plant and equipment for Russian companies.

One of the most significant issues in this area is the qualification of items as property, plant and equipment. So, when preparing financial statements according to the national standards, Russian companies classify assets satisfying conditions for recognition as property, plant and equipment with value no more than 40,000 rubles per item as inventory according to RAS 6/01. Unlike, the specified Russian Standard, IAS 16 property, plant and equipment does not contain a similar regulation. As a result, when preparing IFRS financial statements, Russian companies have a question, how minor items should be accounted: as property, plant and equipment or as inventory? Please note that the international conceptual framework for financial reporting, establishes the following definition of material information. Information is material if its omission or misstatement could influence the decisions of users made on the basis of financial information of a specific reporting company. However, these regulations are insufficient to make decision for companies in relation to recognition of non-material assets as property, plant and equipment or inventory. We believe that for purpose of efficient accounting, classification of minor items as inventory, not as property, plant and equipment is full of relevance. Thus, it seems

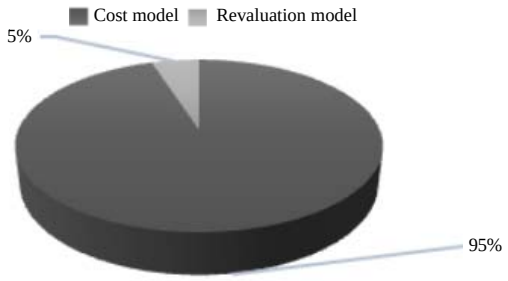

Fig. 1: The practical application of evaluation models of property, plant and equipment

appropriate to introduce permission to IAS 16 of recognition of assets that meet the definition of property, plant and equipment as inventory if their value is non-material for a company. While quantitative materiality threshold for classifying items as property, plant and equipment or inventory will be set by a company independently as it is provided for in the international conceptual framework of financial reporting. Materiality is an entity-specific aspect of relevance based on the nature or magnitude (or both) of the items to which the information relates in the context of an individual entity's financial report.

The following problem for Russian companies is the choice of model of subsequent evaluation of property, plant and equipment in accordance with IAS. IAS 16 allows the possibility of choosing for each class of property, plant and equipment of one of two models: cost model or revaluation model (revalued amount is the fair value at the date of the revaluation of these assets). Our studies have shown that when preparing the financial statements in accordance with IFRS, most of the Russian companies prefer the cost model for subsequent evaluation of property, plant and equipment (Fig. 1).

Only two of 40 reviewed companies apply revaluation model for subsequent evaluation of property, plant and equipment. While companies choose the specified model not for all asset classes. Our studies have shown that companies reject to carry out revaluation of office buildings, land plots and construction work in progress. For subsequent evaluation of listed assets, the companies choose cost model.

Note that, when using the cost model, IAS 16 encourages the companies to disclose information about the fair value of the property, plant and equipment in the financial statements if it significantly differs from the carrying amounts. However, our analysis showed that two above-mentioned companies do not disclose this information in the financial statements. The reason for this

is not the lack of significant differences in the fair value of property, plant and equipment from carrying amounts. Our studies allow to prove that when using the cost model, the carrying value of property, plant and equipment could differ more than double from their fair value. We believe that companies do not disclose this information in the financial statements, since, the regulation of IAS 16 is a recommendation, not a requirement. Analyzing the regulation, we note the following. Certainly, information about the fair value of property, plant and equipment, significantly different from their carrying amounts when using the cost model is useful for the users of the financial statements. However, the disclosure of such information is actually a loss of significance in the application of this model, since, companies still have to calculate the fair value of property, plant and equipment. Thus, on the basis of the principle of efficient accounting, for most companies it is inappropriate to disclose information about the fair value of property, plant and equipment in the financial statements when using the cost model.

When applying the revaluation model under IAS 16 the following information should be disclosed in the financial statements: the effective date of the revaluation whether an independent valuer was involved for each revalued class of property, the carrying amount that would have been recognised had the assets been carried under the cost model the revaluation surplus including changes during the period and any restrictions on the distribution of the balance to shareholders. In addition, IFRS 13 fair value measurement establishes a fairly broad list of requirements for disclosing information in relation to fair value. The carried out researches show that the revaluation of property, plant and equipment is held by the companies at the end of the reporting year (31 December of respective year) without engagement of an independent valuer for specified purposes. The fair value using as the revalued amount is determined on the basis of the cost and income approaches. The calculation of such value is made using the level 3 inputs that is unobservable inputs which are given the lowest priority in IFRS 13. The use of the specified inputs and approaches in determining fair value by the reviewed companies is due to the fact that the revalued property, plant and equipment of such companies are mainly specialized and unique as a result, they are rarely sold in the market (unique waterworks and power equipment manufactured according to special technical requirements for each station).

Please note that some companies using the revaluation model disclose additional information not required by IAS. So, the reviewed companies indicate that in revaluation of property, plant and equipment the accumulated depreciation is subtracted from the gross carrying amount of the asset and the carrying amount of that asset is adjusted to its revalued amount. Please note that IAS 16 gives the possibility to choose one of two methods of accounting of property, plant and equipment as of the revaluation date but does not require disclosure of information on these methods in financial statements: the gross carrying value is adjusted according to the result of revaluation of the carrying amount of the asset. For example, the gross carrying amount can be recalculated based on observable market data or it can be recalculated on a ratio basis of change in the carrying value. Accumulated depreciation as of the revaluation date is adjusted, so that, it is equal to the difference between the gross carrying amount and the carrying amount of the asset after accumulated impairment losses the accumulated depreciation is subtracted from the gross carrying amount of the asset.

In our opinion, this information may be useful to users of financial statements and it is advisable to recommend disclosing it by companies in IAS 16.

Returning to the choice of the model of subsequent evaluation of property, plant and equipment (Fig. 1), we note that in our opinion such a low percentage of the revaluation model is due to necessity to disclose the impairment of these assets in the preparation of the financial statements in accordance with IFRS. Our studies indicate that the impairment of property, plant and equipment occurs virtually in all companies: only two of 40 reviewed companies did not identified impairment losses in respect of these assets.

Analyzing the problem of accounting for impairment of property, plant and equipment, we pay attention to the following. It should be noted that IAS 36 Impairment of Assets does not provide detailed regulation on evaluation of the future cash flows and the discount rate, based on which the value in use asset is calculated for the asset. As a result in practice, the companies use different techniques to determine the value in use of property, plant and equipment which may lead to the recognition of different amounts of impairment of the same assets.

Please also note that IAS 36 encourages but does not require the disclosure of assumptions used to determine the recoverable amount of assets (including property, plant and equipment) during the period in the financial statements. As a result, not all companies reflect this information in the financial statements (Fig. 2).

As it can be seen from Fig. 2, slightly less than a half of the companies do not disclose assumptions used to determine the recoverable amount of property, plant and equipment in the financial statements. The information presented by the companies is not standardized and

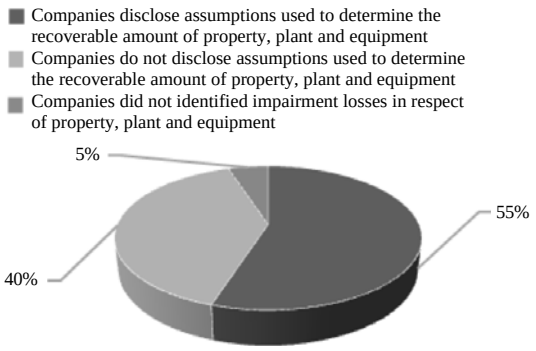

Fig. 2: Disclosure of assumptions in the financial statements of the companies, applied to the calculation of the recoverable amount of property, plant and equipment

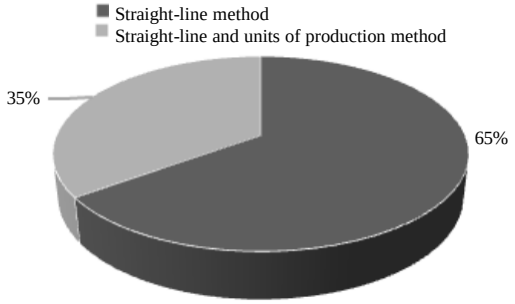

Fig. 3: The choice of depreciation methods of property, plant and equipment

contains separate, snippets of information about these assumptions. As a result, users of financial statements are difficult to clearly identify how the recoverable amount has been determined. Based on the foregoing, it would seem appropriate to introduce to IAS 36 the requirement to disclose the assumptions used to determine the recoverable amount of the property, plant and equipment in the financial statements as well as introduction of more detailed regulations on the calculation of the value in use of these assets in the standard.

The next problem of the practical application of IAS for accounting of property, plant and equipment by the Russian companies is the choice of depreciation methods of these assets. Our studies allow to prove that the preference of the Russian companies is given to the straight-line method (Fig. 3).

Our analysis has shown that all companies use the straight-line depreciation method for property, plant and equipment. While 14 of 40 reviewed companies calculate depreciation of some groups of property, plant and equipment in proportion to the volume of production. Most often, the latter include specialized property, plant and equipment of mining companies.

IAS 16 requires a review of the depreciation methods of property, plant and equipment at least as of the end date of each reporting year. Thus, in the future, the companies can begin using another depreciation method permitted by IAS 16, the diminishing balance method. However, the standard does not actually contain rules for calculating depreciation of property, plant and equipment by diminishing balance method. IAS 16 only states that as a result of the use of the specified method, the amount of accrued depreciation during a useful life of an asset is reduced. In practice, however, there can be different variations of this method. For example, the depreciation of property, plant and equipment by diminishing balance method can be accrued by using the following Eq. 1:

$$D = (CA/UL) \times Ka \quad (1)$$

Where:

D = The annual amount of Depreciation of property, plant and equipment
CA = The Carrying Amount of property, plant and equipment at the beginning of the year
UL = The Useful Life of property, plant and equipment
Ka = An acceleration factor set by the company

To calculate the depreciation of property, plant and equipment by diminishing balance method, the following Eq. 2 can be used:

$$D = HV \times Yr/Yul \quad (2)$$

Where:

D = The annual amount of Depreciation of property, plant and equipment
HV = The Historical Value or revalued amount (in case of revaluation) of property, plant and equipment
Yr = The number of Years remaining until the end of the useful life of property, plant and equipment
Yul = The sum of the numbers of Years of the useful life of the property, plant and equipment

As a result of applying the above two variations of the diminishing balance method in accounting, the different amounts of depreciation and therefore, different values of their carrying amounts and evaluation of assets or expenses which include this depreciation will be obtained. Thus, the above-mentioned variations of the declining balance method are important for users of financial statements. Based on the above information, we believe that the inclusion of requirement for disclosure of information, about how to calculate the depreciation in the diminishing balance method in IAS 16 is appropriate.

Another problem of the practical application of IAS for accounting of property, plant and equipment by the Russian companies is determination of useful lives of

Table 1: Examples of the most significant differences of useful lives of property, plant and equipment, selected by the companies for preparation of financial statements in accordance with IFRS and RAS

	Useful lives (years)	
Class of property, plant and equipment	IAS	RAS
Buildings	5-40	3-250
Constructions	30-45	10-15
Machines and equipment	5-25	5-7
Vehicles	5-10	2-19
Wells	7-40	7-25
Social facilities	10-40	5-50

Table 2: The most common options of property, plant and equipment accounting by the Russian companies according to IFRS and RAS

The most important aspects of accounting and disclosing of property, plant and equipment in the financial statements	IAS	RAS
Model of subsequent evaluation of property and equipment	The vast majority of companies use the cost model	Both revaluation model and cost model are plant applied
Depreciation methods of property, plant and equipment	The straight-line method and the depreciation method in proportion to the volume of production are selected. The straight-line method is used more often	Virtually all companies use only straight-line method
Impairment of property, plant and equipment	Identified by almost all companies	Reflection of impairment of property, plant and equipment in RAS has not yet provided

Table 3: The proposed additions to IAS for accounting of property, plant and equipment

The most important aspects of accounting and disclosing of property, plant and equipment in the financial statements	Recommended adjustments to IAS regulations
Qualification of items as property, plant and equipment	Introduction of permission to IAS 16 of recognition of assets that meet the definition of property, plant and equipment as inventory if their value is non-material for a company
Depreciation of property, plant and equipment	Inclusion of requirement for disclosure of information, about how to calculate the depreciation in the diminishing balance method in IAS 16
Revaluation of property, plant and equipment	To recommend companies in IAS 16 to disclose the selected accounting methods of property, plant and equipment at the revaluation date
Impairment of property, plant and equipment	Introduction of requirement to IAS 36 to disclose the assumptions used to determine the recoverable amount of property, plant and equipment in the financial statements as well as introduction of more detailed regulations on the calculation of the value in use of these assets

property, plant and equipment. The carried out researches show that useful lives of the same property, plant and equipment of all reviewed companies, established for preparation of financial statements under IFRS and national standards, vary considerably. Examples of the most significant inconsistencies of useful lives of property, plant and equipment, selected by the companies for preparation of financial statements in accordance with IFRS and the Russian Accounting Standards (RAS) are presented in Table 1.

The reason for such significant difference is missing requirement to review useful lives of property, plant and equipment at least as of the end date of each reporting year in the Russian National Standards which is required by IAS 16. In addition, RAS do not are contain all factors presented in IAS 16 that are considered when determining the useful lives of property, plant and equipment. So, the Russian National Standards miss such factor as a moral or commercial obsolescence resulting from changes or improvements in the manufacturing process or as a result of changes in market demand for the products or services produced with the asset (Table 2 and 3).

CONCLUSION

Thus, our studies allow to draw the following conclusions. Large Russian companies actively use IFRS for financial reporting purposes. The significant changes occur in accounting of property, plant and equipment when transiting from the Russian National Standards to IFRS.

From our point of view, not all provisions of IAS for accounting of property, plant and equipment have now comprehensive regulations for disclosure in the financial statements. The additions to IAS proposed by us are organized.

RECOMMENDATIONS

In addition, we have determined that on the basis of the principle of efficient accounting for most companies it is inappropriate to disclose information about the fair value of property, plant and equipment in the financial statements when using the cost model. In conclusion, we express the hope that our findings will help in improving IFRS.

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