



MEASUREMENT OF ASSETS IN FINANCIAL STATEMENTS OF AN INDUSTRIAL COMPANY

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Abstract: *Measurement of assets is a core issue of financial accounting and reporting today. International Accounting Standards Board (IASB) and national standard setters in particular countries deal with this issue. The main issue of the measurement in financial accounting is discussed at present: using the fair value measurement at a balance sheet day for tangible fixed assets. Such measurement of assets determines company's financial statement. The objective of this article is to point out the significant differences in the area of measurement of assets according to IAS 16 Property, plant and equipment in financial statements prepared under International Financial Reporting Standards (IFRS).*

Key words: *assets, measurement, cost model, revaluation model, profit loss*

1. INTRODUCTION

Tangible fixed assets (TFA) comprise an important part of the assets and at the same time create the greatest part of the long-term assets in the vast majority of the production accounting entities. From its measurement depends not only economic efficiency and rentability of the provided performances, but also the overall achieved economic results in the presents the enterprise's financial statements. From the point of view of financial management are TFA in the long term connected with the performance of the accounting entity; they bind financial resources in the long term and influence the financial situation.

At the present, the issue of measurement of assets is very important because affects the overall financial situation, this article deals with selected methods of measurement of assets in financial statements prepared under IFRS.

2. TFA AND ITS MEASUREMENT IN FINANCIAL STATEMENTS

Tangible fixed assets, what is marked as owner – occupied property according to IFRS, are related to *IAS 16 Property, plant and equipment (PP&E)*. This standard defines property, plant and equipment as tangible items that (2011, IAS 16.6):

- a) are held for use in the production or supply of goods or services, or rent to others for administrative purposes; and
- b) are expected to be used during more than one period.

IFRS does not set any financial limits for ranking property, plant and equipment among long-term assets; their setting is the part of the accounting policy of the enterprise. (Krupová 2009)

After initial recognition, for the purposes of the financial statements of an enterprise chooses a measurement model for each class of property, plant and equipment. According to standard IAS 16, company can choose between the cost model and revaluation model.

Cost model: after recognition as an asset, an item of *PP&E* shall be carried at its cost less any accumulated depreciation and any accumulated impairment losses. (2011, IAS 16.30)

Revaluation model: After recognition as an asset, an item of property, plant and equipment whose fair value can be measured reliably shall be carried at a revalued amount, being

its fair value at the date of the revaluation less any subsequent accumulated depreciation and subsequent accumulated impairment losses. (2011, IAS 16.31)

If an asset's carrying amount is increased as a result of a revaluation, the increase shall be recognized in other comprehensive income and accumulated in equity under the heading of revaluation surplus. However, the increase shall be recognised in profit or loss to the extent that it reverses a revaluation decrease of the same asset previously recognised in profit or loss. (2011, IAS 16.39)

If an asset's carrying amount is decreased as a result of a revaluation, the decrease shall be recognized in profit or loss. However, the decrease shall be recognised in other comprehensive income to the extent of any credit balance existing in the revaluation surplus in respect of that asset. The decrease recognized in other comprehensive income reduces the amount accumulated in equity under the heading of revaluation surplus. (2011, IAS 16.40)

The effects of taxes on income, if any, resulting from the revaluation of PP&E are recognised and disclosed in accordance with *IAS 12 Income Taxes*. (2011, IAS 16.42)

2.1 The impact of different measurement of TFA on profit or loss

Although a high quality standard IAS 16 Property, plant and equipment (as currently in force) contains one serious flaw, in that it allows company's to choose between two, diametrically opposed models (cost model and revaluation model) putting it in direct conflict with the concept of comparability (between and among entities). (Mládek 2009)

On model examples we are going to point out that measurement of asset after recognition impact on the profit or loss of entity if:

a) entity applies the cost model (assets are valued at cost less any accumulated depreciation and any accumulated impairment losses),

b) entity applies the revaluation model (assets are valued at fair value less any subsequent accumulated depreciation and subsequent accumulated impairment losses).

Cost model: On 1/1/2011 industrial company purchased a TFA for 400, estimated its useful life to be 5 years, salvage value of 0 and selected straight-line depreciation. Statutory tax depreciation: the asset fell into category X (as outlined in the legislation of the country where the asset used) and this statute prescribed a 4-year depreciation period (the company's tax rate was 19%). The company plans to achieve sales of 1 200 a year. We will not consider all costs and revenues generated by the company during each year.

Table 1 shows the calculation of depreciation, deferred income tax and profit/loss, if the asset is measured at cost on the balance sheet date and industrial company plans to achieve sale of 1000 a year.

Revaluation model: Same fact as the first example, but the TFA will be revalued to fair value to 320 at 31/12/2012.

Table 2 shows the calculation of depreciation, deferred income taxes and profit/loss, if the asset is revalued to fair value at 31/12/2012 and company plans to achieve sale of 1000 a year.

Year	Sales	Depreciation		Deferred tax	Profit/Loss
		straight-line method	tax		
2011	1 200	80	100	3,8	1116,2
2012	1 200	80	100	3,8	1116,2
2013	1 200	80	100	3,8	1116,2
2014	1 200	80	100	3,8	1116,2
2015	1 200	80	0	-15,2	1135,2

Tab. 1. Profit/loss in the years given in cost model

Year	Sales	Depreciation		Deferred tax	Profit/Loss
		straight-line method	tax		
2011	1 200	80	100	3,8	1116,2
2012	1 200	80	100	3,8	1116,2
2013	1 200	120	100	-3,8	1083,8
2014	1 200	120	100	-3,8	1083,8
2015	1 200	120	0	-22,8	1102,8

Tab. 2. Profit/loss in the years given in revaluation model

When comparing the effect on profit/loss in fig. 1 is evident: If the company increases the value of asset to fair value, it has less profit/loss than in the application of cost model. If we account for the machinery, depreciation will be included in the valuation of internally produced inventories. Revaluation model also affects of the value of internally produced inventories.

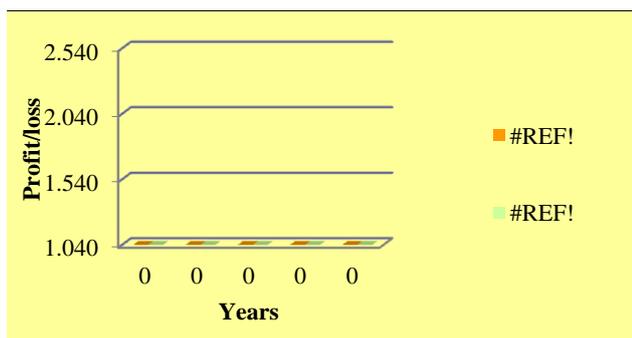


Fig. 1. Comparison of the profit/loss in the years given

3. FAIR VALUE MEASUREMENT IN PRACTICE

We suppose that the fair value measurement can bring a lot of relevant information for accounting information users but it brings higher risks, especially in case fair value measurement of non financial assets. The main risk relates to the fact that the fair value of these assets don't always increase in the market.

This is one of the reasons, why the companies don't prefer the revaluation model in practice and apply the cost model. As proofs of this claim can serve the results of the survey I carried out on a sample of consolidated financial statements (for the year ended 31/12/2009) of 20 industrial companies (11 operate in the territory of the Slovakia and 9 foreign companies) reporting under IFRS. The results can be found in fig. 2.

Other reasons why companies do not necessarily use revaluation model in practice:

- Negative impact on profit/loss* - If we increase the value of assets to fair value, it has negative impact on profit/loss.
- Application model is expensive* - costs associated with regular measurement of these assets. (Krupová, 2010)

- Application of the model is complicated* - model requires complicated calculations. These calculations relate to the recognition of deferred income tax. (Krupová, 2010)

We also think that the financial and economic crisis could significantly change the approach to measurement in standard

IAS 16 *Property, plant and equipment* and in all financial accounting.

This issue seems to be not only a question for financial and accounting experts, but also for politicians. They said: "The concept of fair value accounting is correct and useful, but the application is problematic." Some experts assume that the fair value measurement deepens the financial crisis. (Dvořáková, 2009)

However, the survey confirmed that the three companies are revalued their assets to fair value at a balance sheet date. The results of our survey are illustrated in Figure 1. Two companies that revalue assets to fair value accordance standard 16, they are energy companies with an important position in domestic market. The third company is a major French cosmetic company and world leader of fashion.

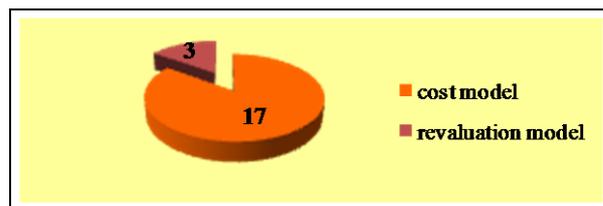


Fig. 2. Measurement of PP&E in standard 16 in practice

Why do these companies choose the revaluation model? L. Krupová, expert for IFRS say: *Revaluation model increases the value of assets and equity.* The reason for the choice of the revaluation model may be improved debt ratios. *Companies are reporting lower profits.* There may be companies that meet the recognition of lower income, because they can get a higher state subsidy or having to pay lower dividends, etc."

4. CONCLUSION

The measurement process can be regarded as one of the most important areas of financial accounting. The measurement methods of assets influence the view of the financial situation. Measurement which reflects present economic conditions at the day of measurement is for accounting information users very useful. On model example we demonstrate that fair value measurement has negative impact on profit/loss accordance standard *IAS 16 Property, plant and equipment*. Our survey confirmed that the cost model is preferred in practice. There exist firms that apply the revaluation model, although that model has a negative impact on profit/loss.

We think that it is necessary to ask nowadays: Is it right to use the fair value measurement of non financial assets during financial crises, when the fair value of those assets changes?

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