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THE IMPORTANCE OF OTHER COMPREHENSIVE INCOME FOR MANAGERS IN A PRODUCTION ENTITY

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Abstract:
One of the main parameters of the evaluation of financial position of entity is the level of total comprehensive income reported in financial reports. The study contains an overview of the other comprehensive income as the part of total comprehensive income. The research problem related to the significance of dates about the other comprehensive income ingredients for production entity management. The essence, arise reasons and main principles of the other comprehensive income in relating to the changes in own capital of entity was explained within the scope of law-regulated accounting. The paper concentrated on the producing tangible fixed assets problems.

Key words: *other comprehensive income, revaluation reserve, statement on comprehensive income, financial result for a period, fair value*

INTRODUCTION

One of the major values characterising the financial condition of an economic entity is its financial result. Data on the incomes and costs which make up the result, appropriately presented in a financial statement enable carrying out a detailed evaluation of the profitability of an economic unit's activity, taking into consideration the profitability of different types of this activity. A report which presents such a set of data is the profit and loss account. The managerial staff is particularly interested in information about the economic unit's financial results, among others due to the level of remunerations, which frequently depend on the financial results, the canvassing of investors and planned investments. An „effective" manager is also well acquainted with the data on the financial results of competitive entities and contractors.

Following the changes in international law related to financial statements, the notions of „comprehensive income of an economic unit" and „other comprehensive income" appeared beside the financial result. Polish managers more and more frequently face the necessity of referring to information on comprehensive income for a period, especially information on the so-called other comprehensive income. There is a problem of proper interpretation of these values from the point of view of the economic unit's management process. The problem of other comprehensive income seems to be particularly important in production entities, due to the complexity of production and non-production costs with reference to the financial results for a period.

The aim of the article is to show the importance of information on other comprehensive income in the management of a production unit.

An equally important goal is the analysis of selected cases of other comprehensive income generation from the point of view of production unit's comprehensive earnings management.

The thesis proposed in the article assumes that information on other comprehensive income, which is an increasingly important element of information on a production unit's comprehensive income, should become the subject of financial reporting policy and earnings management.

THE ESSENCE OF AN ECONOMIC ENTITY'S COMPREHENSIVE INCOME

The comprehensive income of an economic unit includes all the elements of net profit/loss as well as „other comprehensive income". The net profit/loss consists of the income which was obtained in a given period and is attributable to this period as well as of the costs incurred for this income generation. Therefore, all the income and cost elements of the financial result for a period are „realized", whether or not cash flows related to these incomes and costs occurred in that period of time. The elements of the financial result for a period always change the level of the economic entity's equity capital[1]. Assuming that the financial result achieved by the economic unit in a given period of time is the only change in equity capital, we obtain the following equation:

$$KW(ko) - KW(po) = \Delta KW = WF(o) \qquad (1)$$

[1] Net profit/loss is an element of an economic unit's equity capital and is reported as a separate balance sheet item in liabilities.

where:

KW(ko) – equity capital at the end of the period,

KW(po) – equity capital at the beginning of the period,

ΔKW – change in equity capital,

WF(o) – financial result for the period

KW(ko) > KW(po) means a profit, whereas KW (ko) < KW(po) means a loss [8].

However, there might also occur other changes to the equity capital item, which are not a consequence of changes in the financial result. These include Δ KW [6]. If these changes are related to ownership settlement (e.g. issue of shares, share issue price higher than nominal etc.) or result from the division of the financial result from previous periods which is not a reallocation within equity capital items, they do not take on the character of the economic entity's income.

Comprehensive income of an economic unit can be presented by means of the following equation:

$$KW(ko) - KW(po) \pm ZKW = \Delta KW1 \qquad (2)$$

where:

ZKW – changes related to ownership settlement or resulting from the division of the financial result from previous periods which is not a reallocation within equity capital items

ΔKW1 – comprehensive income of a unit

The comprehensive income of a unit consists of the following:

$$\Delta\ KW1 = WF\ (o) \pm ICD \qquad (3)$$

where:

ICD – other comprehensive income.

If we take into account the income tax charged on other comprehensive income, which will be paid in subsequent periods (the so-called deferred tax), the net value of other comprehensive income will be reported:

$$ICD\ net = ICD - PD \qquad (4)$$

where:

PD – the amount of income tax established according to the interest rate in force in the period of profit realization

Other comprehensive income consists mainly of income and cost items (including corrections that result from reclassification), which have not been reported as profits or losses of the period and are not an element of the financial result for the period. They include economic transactions the results of which are presented mainly as changes in revaluation reserve.

OTHER COMPREHENSIVE INCOME OF AN ECONOMIC ENTITY IN FINANCIAL STATEMENTS

According to the International Accounting Standard (IAS) 1 „Financial statement presentation", the aim of financial statements is:

- to provide information on the financial condition, achievements and cash flows in an enterprise – such information is useful for a wide circle of users who take decisions, and
- to show the results of the trust function performed by the entity's management over the provided resources.

From the point of view of resource management, this second goal seems to be particularly important.

Due to the standardisation and harmonisation of Polish balance sheet law with international solutions, economic entities operating in Poland more and more frequently draw up financial statements based on the principles that are the same or similar to the ones in force in European Economic Area countries. Since 1st January 2005 the issuers of securities and banks have been drawing up consolidated financial statements according to International Accounting Standards (IAS) and International Financial Reporting Standards (IFRS) [9]. Some entities can choose the law which will provide a basis for drawing up financial statements. Pursuant to the Accounting Act, a financial statement in accordance with IAS/IFRS can be drawn up by:

Issuers of securities who have been granted marketing authorisation, issuers who are planning to apply for and those who are applying for marketing authorisation on one of the markets regulated by EEA countries,

Entities included in a capital group in which the dominant entity draws up a consolidated financial result in accordance with IAS.

Since 1st January 2009 one of financial statements drawn up in accordance with IAS/IFRS is a statement of a unit's comprehensive income for a given period. In this statement, apart from the net profit or loss, an economic entity is obliged to include other comprehensive income as well as total comprehensive income obtained in the reporting period. IAS/IFRS does not provide a template of this statement, defining merely its minimal scope. It includes the following items:

a. Revenues,
b. Financial costs,
c. Participation in profits and losses of affiliated units and joint ventures evaluated according to the ownership settlement method,
d. Tax liabilities,
e. Total sum including the amounts of profit or loss after tax on discontinued operations and at the time of fair value measurement,
f. Net profit or loss,
g. Each element of other comprehensive income classified by type,
h. Total comprehensive income.

From the point of view of the structure, two versions of this statement are allowed. All incomes and costs included in a given period are presented:

- in one statement on comprehensive income, or
- in two statements:
  1. profit and loss account (a comparative and multistep variant is allowed),
  2. statement on comprehensive income which begins with a profit or loss and presents the elements of other comprehensive income (paragraph 81 of IAS 1).

Below have been given examples of other comprehensive [10, 12, 5]:

- profits or losses due to revaluation of fixed assets, intangible assets (IAS 16 „Tangible assets", IAS 38 „Intangible assets"),
- profits and losses resulting from revaluation of the items in financial statements of an entity operating abroad (IAS 21 „The results of changes in foreign currency exchange rates"),
- profits and losses due to revaluation of the elements of financial assets available for sale (IAS 39 „Financial instruments: recognition and evaluation"),

- the effective part of profits and losses related to hedging instruments within a cash flow hedge (IAS 39 „Financial instruments – recognition and evaluation
- actuarial profits and losses due to a programme for „specific employee benefits" (§ 93 A IAS 19 „Employee benefits").

It is difficult to define the direction of influence exerted by the elements of other comprehensive income on the operational result. Studies conducted in 2009 on a sample of 160 companies quoted on the Italian Stock Exchange indicate that the effect of the remaining income on the operational result is varied [2]. 70 entities reported a negative influence, including 42 entities which reported a reduced profit and 27 which reported an increased loss. A similar number of companies – 66 – reported a positive influence, including 41 companies which reported an increased profit and 22 – a reduced loss.

Particularly important is the fact that the remaining income influenced the change of the result direction to a slight extent: from profit to loss – 1 company, while from loss to profit – 3 companies. The author of the studies emphasises that the companies' managers showed little interest in the elements of other comprehensive income.

It may be presumed that they were not the subject of earnings management activities. The impact of other comprehensive income on the final result has been presented in Table 1.

At the end of the 20th century appeared the earnings management concept, which is increasingly popular with managers. However, the majority of earnings management strategies and techniques are focussed on net profit or loss. The earnings management tools widely described in the literature most frequently refer to evaluation methods, estimates and transaction management, by means of which the level of income and costs in a given period is finally changed. The presented analyses do not take into consideration possible changes in the level of other comprehensive income and the effect of these changes on net profit/loss. The elements of other comprehensive income seem to be the consequence of earlier decisions concerning the balance sheet policy followed by the economic unit. They are not the subject of this policy, though. Management of other comprehensive income as part of broadly understood earnings management, especially in the area of balance sheet policy, requires a thorough analysis of managerial goals as well as the selection of accounting instruments for the annual period and several-year periods.

OTHER COMPREHENSIVE INCOME IN A PRODUCTION ENTITY

One of the elements of other comprehensive income is the difference resulting from tangible assets revaluation. In a production entity it is most frequently related to fixed assets.

IAS 16 allows the following methods for fixed assets evaluation:

- A model based on the purchase price or manufacturing cost. After the initial value of a fixed asset has been recorded, it should be reported according to the purchase price or manufacturing cost decreased by accumulated depreciation and by accumulated impairment loss,
- A model based on post-revaluation amount. After recording the initial value of a fixed asset whose fair value can be established in a reliable way, this item should be recognized as post-revaluation amount, which is fair value on the day of revaluation decreased by the amount of subsequent accumulated depreciation and subsequent impairment loss.

The appearance of another element of comprehensive income is related to the post-revaluation amount model. The presented problem has been illustrated by case 1.

Case 1

A production unit has a production machine the initial value of which is PLN 50 000 and previous depreciation (accumulated depreciation) reaches PLN 10 000. The fair value on the day of revaluation amounts to PLN 48 000. Coefficient 1.2 will be used for revaluation.

Basing on the adopted criteria, the following results in PLN have been obtained:

- Net value before revaluation
  50 000 – 10 000 = 40 000
- Initial post-revaluation amount
  1.2 x 50 000 = 60 000
- Depreciation post-revaluation amount
  1.2 x 10 000 = 12 000
- Net value after revaluation
  60 000 – 12 000 = 48 000
- Net value increase
  48 000 – 40 000 = 8 000

The reported increase of the production machine's value by PLN 8 000 constitutes an income which is not an element of the financial result for the period as it has not been realized. The economic entity has not sold this machine.

Table 1
Impact of Total Other Comprehensive Income on Net Operating Income [2]

	Impact	Total
Negative Variation		70
From profit to loss	1	
Reduction of profit	42	
Increase in loss	27	
No variation	24	24
Positive variation		66
From loss to profit	3	
Increase in profit	41	
Reduction of loss	22	
Total		**160**

However, there has been an increase in this unit's assets and its source of financing is equity capital.

On the balance sheet date the economic entity will report thus generated income in balance sheet liabilities within equity capital as net revaluation reserve, i.e. decreased by deferred income tax in PLN:

- Tax payable in the future (recognized in the liabilities item „Deferred tax liability")

  19%[2] of 8 000 = 1 520
- Revaluation reserve

  8 000 – 1520 = 6 480

At the same time, in its statement on comprehensive income the entity will report an element of other comprehensive income: profit on tangible assets revaluation - PLN 6 480.

Δ KW of the entity will increase by the same value.

In the event of permanent impairment loss of the machine's value resulting from e.g. its damage or a change in the applied technology, the loss is settled by decreasing the revaluation reserve until it is fully covered, and any difference will be attributed to other operating costs for the period. As a result, other comprehensive income may become decreased and higher costs for the period will be reported, thus decreasing also the financial result for the period, which has been illustrated by case 2.

Case 2

The entity uses the post-revaluation amount model for the evaluation of its production machine. Below have been given figures concerning the machine after revaluation:

- Initial value after revaluation = 90 000
- Previous depreciation after revaluation = 30 000
- Revaluation reserve = 15 000

Due to the production line change, the unit's management took a decision to sell the machine, establishing the net sale price as PLN 40 000.

The net value of the machine is 60 000 (90 000 – 30 000), so the impairment loss should be PLN 20 000.

Due to that the entity will report the following amounts in PLN:

- The machine's value 40 000
- Revaluation reserve

  15 000 – 15 000 = 0
- Other operating costs

  20 000 – 15 000 = 5 000

From the point of view of comprehensive income reported in a statement by the entity, other operating costs are an element of the financial result for the period and will decrease the financial result for the period by PLN 5000, whereas the remaining amount of PLN 15 000 will be recognized as a decrease of another element of comprehensive income. In total the unit's income will be decreased by 20 000, i.e. by the real drop in the value of the unit's assets.

A separate element of other comprehensive income is the difference resulting from financial assets revaluation. It should be noted that the manner of these assets classification is important. Detailed principles are contained in IAS 39. Also in this case, the appearance of an element of other comprehensive income is related to the application of the fair value parameter for balance sheet evaluation[3]. In the case of financial investments recognised as long-term ones, the value might increase over the purchase price. The entity generates an income, which however is not the income for the current period, as the investment has not been sold. In subsequent periods the value of this assets element may be changed many times. The presented problem has been illustrated by case 3.

Case 3

During the financial year an economic unit purchased 300 shares of a company quoted on the Stock Exchange in Warsaw, paying PLN 50 per a share[4]. The unit's management took a decision to classify these shares as long-term investments. At the end of the year the stock market exchange rate of the share is PLN 57. In this case the stock market exchange rate is fair value.

The value of shares in the balance sheet will be PLN 17 100 (300 shares x 57 PLN/share)

Below have been given calculations concerning other comprehensive income in PLN:

- Initial value of share

  300 shares x 50 000 = 15 000
- Difference resulting from share revaluation

  17 100 – 15 000 = 2 100
- Deferred tax due to share value increase

  19% x 2 100 = 399
- Revaluation reserve

  2 100 – 399 = 1 701

The economic entity will report this difference as revaluation reserve in the balance sheet and as another element of comprehensive income in the statement on comprehensive income for a given period.

A separate group is made up of elements of other comprehensive income which are a result of currency cash flow hedges, reported in the balance sheet according to fair value. Profits or losses resulting from fair value measurement in the case of cash flow hedges are recognised in other comprehensive income. However, the condition that profits and losses related to the hedging instrument are an effective collateral must be fulfilled [11]. Cash flow hedging consists in securing the unit against the risk related to cash flow changeability. A consequence of a particular risk realization will concern subsequent periods (years) and only in these periods will they be attributed to the financial result. Current changes in the fair value of a hedging instrument are recognized in revaluation reserve. It has to be emphasised that the value of these changes may not exceed the value of changes in potential cash flows resulting from the hedged item. As a result, only the effective part of hedge will be attributed to revaluation reserve. The ineffective part should be attributed to income or financial costs, and if the hedging instrument has been classified into financial assets available for sale – it should be attributed to revaluation reserve. Examples of cash flow hedges have been given in Table 2.

The occurrence of other comprehensive income as a result of cash flow hedging transaction has been illustrated by case 4.

[2] Assuming that the income tax rate in the year of difference realization is 19%; the currently binding rate of corporate income tax in Poland is 19%.

[3] Pursuant to art. 28 of the Accounting Act, fair value is assumed to be an amount for which a particular element of assets could be exchanged, and the obligation is settled according to market transaction conditions between interested parties and well-informed parties that are not affiliated to each other. If an active market for a given element of assets exists, the fair value is its market value.

[4] In case 3 the purchase costs have been neglected. In such a case the purchase price is equal to the acquisition price.

Table 2
Examples of cash flow hedges [own study based on [3, 4]]

Type of flow – hedged item	Type of risk	Hedging instrument
Planned raising of a credit based on fixed interest rate	Interest rate risk	Interest rates, forward contracts
Planned raising of a credit in foreign currency	Foreign currency exchange rate risk	Forward contracts, purchased currency options, currency loans
Planned purchase of tangible assets elements, stocks in foreign currency	Foreign currency exchange rate risk	Forward contracts, purchased currency options, currency loans

Case 4

An economic entity is planning to purchase a production machine 07.X+1 year for EUR 50 000. On the day of concluding the contract with the producer, 30.09.X0, the entity purchased a call option of EUR 50 000 at the exchange rate of 4.20 with the completion date 15.07.X + 1, paying for it PLN 4000.

The exchange rates and fair value of the hedging instrument have been given in Table 3.

Table 3
The exchange rates and fair value of the hedging instrument

Date	Spot exchange rate EUR/PLN	Value of cash flows at spot exchange rate EUR/PLN	Fair value of hedging instrument in PLN
30.09.X0	4.10	205 000	4 000
31.12.X0	4.30	215 000	14 000
15.07.X+1	4.00	210 000	10 000

The income tax has been neglected in the example.

The difference in the hedging instrument's fair value amounts to PLN 10 000 and is fully effective, as it covers potential changes in cash flows. In the entity's balance sheet on 31.12.X0 short-term financial assets of PLN 14 000 and revaluation reserve of PLN 10 000 will be reported. The value of PLN 10 000 will at the same time be reported in the statement on comprehensive income, in "other comprehensive income" item.

Below have been presented values on the day of the hedging transaction settlement:
- hedge effectiveness 120% (6 000/5 000),
- effective part of hedge 5 000,
- decrease in revaluation reserve and financial assets value to fair value – correction by 4 000,
- decrease in revaluation reserve and correction of the production machine's initial value by 5 000 (effective part of hedge),
- decrease in revaluation reserve and recognition of financial incomes (result for the period) by 1 000 (ineffective part of hedge),
- financial assets – options write-off,
- decrease of other comprehensive income by 10 000 in the statement on comprehensive income.

The decrease in other comprehensive income will be recognised in „The effective part of profits and losses related to the hedging instrument within cash flow hedges" item.

The conclusion resulting from the above presented cases is that a decision of the production entity's management regarding the adopted method of fixed assets evaluation exerts a considerable impact on whether the entity will report other comprehensive income. Managers also influence the selection and scope of hedging instruments application. By their decisions they indirectly influence the type and level of other comprehensive income and, in consequence, the structure of the production unit's comprehensive income presented in the financial statement. This decision-making area should be a part of the unit's balance sheet and earnings management policy. This should be accompanied by activities related to the organisation of production, management and logistic procedures aimed at streamlining the unit's functioning and improving its financial parameters. Combining the effects of the implementation of Integrated Quality Management System based on ISO 9000, ISO 14000, PN-N 18001 with an appropriate selection of earnings management instruments seems to be particularly beneficial. One of the effects of this system implementation in the financial information area is a reduction of operating and overhead costs and the resulting changes in the level and structure of the net result [1, 7].

CONCLUSIONS

The financial result established in the profit and loss account and its structure indicate the profitability realized in a given period. Other comprehensive income provides information on potential profits or losses which the unit will realize in subsequent periods and which have already caused changes in the revaluation reserve for the current period. For this reason, when evaluating the financial condition of an economic entity, it is necessary to take into consideration also the increase in equity capital (Δ KW) understood as the „global" result of the entity.

The end of the 20th century saw the popularity of the earnings management concept, which draws an increasing interest from managers. However, most earnings management strategies and techniques are focussed on net profit or loss. In their analyses, managers frequently omit information on other comprehensive income, regarding it as less important.

The analysis of the cases presented in the article suggests that other comprehensive income should also become the subject, and not only the effect of financial reporting policy.

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