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Використання касового методу і методу нарахування в оцінці результатів діяльності підприємства

Метод нарахування повсюдно використовується в бухгалтерському обліку для визначення результатів діяльності підприємства. Касовий метод застосовується при складанні звіту про рух грошових коштів. Однак при реалізації підприємством принципу безперервності діяльності виникає питання, чи є розрахований за методом нарахування фінансовий результат достовірним для такого твердження. Стаття присвячена вирішенню проблеми виникнення розбіжностей при розрахунку фінансового результату діяльності суб'єкта господарювання внаслідок застосування різних методів (методу нарахування і касового методу). В роботі проведено розрахунок фінансового результату від продажів при дотриманні методу нарахування і касового методу для товариства з обмеженою відповідальністю. Проведені розрахунки показали, що при використанні цих методів виникають різниці в виручці і витратах, що веде до отримання різниці в фінансовому результаті. Касовий фінансовий результат був нижче «паперового» – нарахованого фінансового результату. Виявлено, що використання принципу нарахування обліку як основоположного дає можливість представляти фінансове становище підприємства в кращому світлі.

Ключові слова: безперервність діяльності, нарахування, касовий метод, прибуток / збиток від продажу.

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Использование кассового метода и метода начисления в оценке результатов деятельности предприятия

Метод начисления повсеместно используется в бухгалтерском учете для определения результатов деятельности предприятия. Кассовый метод применяется при составлении отчета о движении денежных средств. Однако при реализации предприятием принципа непрерывности деятельности возникает вопрос, является ли определенный методом начисления финансовый результат достаточным для такого утверждения. Статья посвящена решению проблемы возникновения различий при расчете финансового результата деятельности предприятия в результате применения разных методов (метода начисления и кассового метода). В работе проведен расчет финансового результата от продаж при соблюдении метода начисления и кассового метода для общества с ограниченной ответственностью. Проведенные расчеты показали, что при использовании этих методов возникают разницы в выручке и затратах, что ведет к получению разницы в финансовом результате. Кассовый финансовый результат был ниже «бумажного» – начисленного финансового результата. Выведено, что использование в учете принципа начисления как основополагающего дает возможность представлять финансовое положение предприятия в лучшем свете.

Ключевые слова: непрерывность деятельности, начисления, кассовый метод, прибыль / убыток от продаж.

The Use of Cash Basis and Accrual Basis in Assessing the Performance of Enterprise

The accrual basis is commonly used to measure the business performance in accounting. The cash basis is applied for the preparation of cash flow statements. However, if an enterprise applies the going concern principle, we face the question whether the performance calculated on the accrual basis is sufficient to follow that principle. The problem that arises relates to the formation of the differences between the result of the entity calculated of using the accrual and cash basis. It is a question of whether the introduction of accrual accounting principles as the parent principle may present the financial situation of the company in a better light. This paper presents an attempt to establish the profit/loss on sales of a limited liability company on the accrual and cash basis. As it results from the calculations, there are discrepancies between the revenues and costs established on the accrual and cash basis, which lead to a difference in the performance calculated using both methods. The cash-based performance was lower than the "paper" performance calculated using the accrual method.

Keywords: going concern, accrual, cash basis, profit/loss on sales.

Introduction. Accrual constitutes one of the main principles used in accounting. Its popularity makes a lot of enterprises abandon the cash basis which is, however, still applied in state administrative entities, especially for the purpose of budget plan implementation. This derives from the opinion that only the accrual basis, used to calculate the financial performance and to prepare the balance sheet, gives the opportunity to present the whole financial situation (Tracy, 1996, p. 56) and thus to realise the basic accounting concept – true and view. We must agree with this opinion, yet only to the extent mentioned above. However, it is questionable and dubious whether the performance counted on the accrual basis will ensure compliance with the going concern rule, which is one of the underlying principles and fundamental requirements in accounting (Walińska, 2012, p. 86). It seems that only the entities being capable to settle their liabilities on time can continue their activities, as the "blood" of each enterprise is created by cash, not by financial performance written on paper. We may of course say that the stakeholders' expectations regarding the information on carrying balance of cash, included in financial statements, are met by the cash flow figures, being a reflection of the cash basis application. But since that account is often prepared using the indirect method, it is difficult to talk about full implementation of the cash basis at the operating level. It must be emphasized that the account discussed herein does not represent a typical cash flow statement, whose role is entirely different and which provides the users with data being different than those in the profit and loss account.

Objective and method. This article constitutes an attempt to use the cash basis in order to determine the profit/loss on sales, and to check what differences will emerge when using the cash basis and the accrual basis to establish the revenues and costs. Additionally, the authors also referred to the financial position of the enterprise in case of applying each of the two methods. For the purposes of the article, we have formulated the

hypothesis that the use of the cash basis to recognise the revenues and costs will generate differences at the level of core operating activities. In order to verify it, we have performed a case study. The calculation of the "cash" revenues and costs was based on the figures included in the company's financial statements for 2014. The study was conducted on a limited liability company involved in manufacturing and trade, with product sales being the prevailing part of the revenues. The profit/loss on sales (P/Ls) was calculated using the generally applied formula:

P/Ls = revenues from sales – costs by type, but the performance components were defined in a different way:

for the accrual method:

revenue = proceeds + receivables + Δ product stocks

cost = consumption + trade liabilities

for the cash method:

cash revenue = sales value + receivables at opening date – receivables at closing date

cash cost = (purchase + liabilities at opening date – liabilities at closing date) * consumption/purchase

Purchase = consumption (cost) + stocks at opening date – stocks at closing date (for material assets)

For services:

Cash-based cost = purchase – (purchase * (C_l / 365))

In the calculation, we have omitted the balance operations, using only the operations which affect the profit/loss on sales. For this reason, we have introduced the categories "cash-based revenue" and "cash-based cost", not "proceeds" and "expenses". Since the entity makes its payments in different terms, the data contained in the balance sheet were used to calculate the cycle of receivables (C_r) and liabilities (C_l) which formed the basis to establish the cash-based revenue and cost using the following formulas:

$$C_r = (\bar{r} / R) * 365$$

$$C_l = (\bar{l} / R) * 365$$

where: \bar{r} - average balance of receivables;

\bar{l} – average balance of liabilities;
R – net revenues from sales.

The average balances constitute arithmetic mean of the opening and closing balance of receivables or liabilities (as per the balance sheet figures). The calculation does not take into account monthly periods but the whole year, as the financial performance is calculated for a year.

In the summary of the results, we have used the comparative analysis and induction methods.

Accrual basis as overriding principle of accounting. Enterprises prepare their financial statements following financial reporting standards specific for a particular country (Błażyńska, 2015, p. 62). Diverse factors (related to culture, law, economy, politics, legal systems, tax systems or historical events) contributed to the fact that presently in Europe we have two general accounting models: continental and Anglo-Saxon system (Bereżnicka and Błażyńska, 2016). In these systems:

- financial information is addressed to different groups of users,
- there is a disparate approach to the interpretation of business events and operations, measurement of assets and liabilities and to the presentation of figures in financial reports.

The accounting system constitutes a collection of principles and/or rules and a set of theoretical and practical solutions determined within such collection. The relevant literature describes different approaches to the terms “principle” and “rule”, some of which formulate different definitions of these expressions, and other treat them as synonyms (Skrzywan, 1968; Dwornik, 1998; Hart, 1998). Nevertheless, the dissimilarity of approaches to the determination of accounting standards based on principles and rules is broadly discussed. Therefore, for the purposes of this article, we have assumed that a principle is a code of conduct having a certain level of importance, being accepted in the world, and a rule is a method to implement the principle, an assumed manner of proceeding.

The first attempts to establish the accounting principles that form basis for bookkeeping and to prepare financial statements were made in the United States in the 20th century. They were reflected in *A Tentative Statement of Accounting Principles Underlying Corporate Financial Statements*, issued in 1936 by the American Accounting Association – AAA. In particular, it included the principle of going concern and expressed the demand for revenue recognition (Zeff, 1999).

The view on the accounting principles in the second decade of the 21st century is an effect of an approach being evolutionary in terms of the accounting objective. Thus, the accounting principles and related methods should, on one hand, be approached from the perspective of capital markets, and on the other hand – from the domestic point of view, including the tax approach. In Poland, the accounting principles were established in the Accounting Act of 29 September 1994. It specifies which

business entities must or may apply the Accounting Act or the International Financial Reporting Standards (IFRS).

In practice, the use of the IFRS accounting requires explicit definition of the applied terms. An important role here is played by the Conceptual Framework which stipulates the principles for financial reporting and defines its objective. The objective of the general purpose financial reporting is “to provide financial information on the reporting entity, which is useful for potential investors, lenders and other creditors in making decisions about the provision of resources for the entity” (IFRS 2011, ZK § C2). The financial statements are addressed to the users of the financial data who may not demand reports adapted to their individual needs related to information.

The Conceptual Framework explicitly stipulates that the pursuit of the accounting objectives requires compliance with the accrual method, and thus the recognition of the effects of transactions and other events should take place upon their occurrence. Therefore, payments and disbursements of cash do not have any direct effect on the recognition of changes in balance sheet and financial result items (IFRS 2007, ZK, § 22).

Financial statements are based on the accrual principle and provide information on:

- past transactions implying inflow or outflow of cash,
- obligations of the entity to make future cash payments,
- cash equivalents which the entity will receive in the future.

For the purpose of financial reporting, it has been assumed that the accrual accounting is a better basis for the assessment of past and future performance than the information based only on cash inflows for a given period. The financial information¹ so prepared is useful in assessing the generation of future net cash flows by the entity. Such information indicates the increase of net cash flows resulting from the efficient use of financial resources, and not direct inflows coming from investors and creditors (IFRS 2011, ZK, § 17 to 19). The financial information should allow to pursue the goals related to informing, controlling and evaluating.

Cash basis used in practice. The Accounting Act of 29 September 1994 obliges all economic entities to present their economic and financial position and performance in a fair and clear manner.

The relevant literature highlights the need to simultaneously use the accrual and cash methods (Karbownik, 2014, pp. 31-45). Both methods are applied e.g. by entities from the public finance sector. The accrual basis is used by state entities, and the cash basis – in the records of the state budget and the budgets of local government authorities.

The use of the accrual basis, discussed in the previous section, allows the entity to recognise in the accounting books all economic transactions which occurred during the financial year. It provides information both on the income to be realised and on the costs incurred.

¹ Within the meaning of the IFRS Conceptual Framework, financial information is information having the form of words or numbers, which presents an event, process or economic phenomenon, and information being necessary to understand the event, process or economic phenomenon, as well as all other information, contained in the financial statements, concerning the entity, its environment, facts and factors affecting the reporting entity and its activities (Błażyńska, 2015, p. 52).

On the other hand, the cash basis focuses on monitoring the carrying balance of cash and on implementing the financial plans. In accordance with the cash method, income or expenditure is recognised when incurred. We can notice the cash method in the preparation of cash flow statements, particularly at the level of financial and investment activities, where proceeds are compared to expenses. However, in the assessment of the operating cash flow, the cash basis is in fact inapplicable, as here the starting point is the financial

result calculated on the accrual basis and subject to different adjustments. Therefore, we are not entirely certain if the financial performance was established correctly, which translates into the financial (cash-related) position of the enterprise within its core activity.

Performance calculated on the accrual and cash basis – case study. Table 1 presents selected financial figures included in the balance sheet and the profit and loss account.

Table 1

Receivables, liabilities, revenues and other financial figures of the analysed enterprise [PLN]

Item	Opening balance	Closing balance	Average balance
Trade receivables [PLN]	190,430	197,288	193,859
Trade liabilities [PLN]	89,865	110,637	100,251
Revenues from sales [PLN]	631,188		
Cycle of receivables (days)	112		
Cycle of liabilities (days)	58		

Source: own study based on the company's balance sheet and profit and loss account.

The analysed entity recognised the revenues from sales at over PLN 630,000. More than 30 % of the revenues were proved only by invoices, but they did not affect the amount of money that the entity could consider as cash revenues remaining at its disposal after the transactions were completed. In the analysed period, the liabilities increased by PLN 20,772. Taking into account the figures from Table 1, the entity's counterparties did not receive the amount of over PLN 110,000 in the form of cash. This may result a payment gridlock, if a supplier cannot pay its due liabilities because the receivables are not collected.

The entity's figures indicate it generally does not "try the patience" of its suppliers, which is proved by the

liabilities payment cycle of nearly 60 days. At the same time, it should be noted that the recipients enjoyed very long payment terms (liabilities payment cycle of 112 days), which in the future may result in the so-called bad debts, i.e. the increase of overdue (uncollected) receivables, and this may in turn affect the capacity to continue the business activity. However, based on the figures for 2014, it was concluded that in 2015 the analysed entity was in a good financial standing (which is proved e.g. by the fact that the liability payment terms are shorter than the terms of receivables inflow).

Table 2 compares the cost figures presented on the accrual and cash bases.

Table 2

Costs for the given year presented on the accrual and cash bases [PLN]

Item	Purchase	Consumption	Cash-based cost	Accrual-based cost
Goods*	25,840.00	17,987.00	9,685.30	17,987.00
Materials	325,066.00	322,453.00	307,294.00	322,453.00
Third-party services	28,470.00	-	28,470.00	28,470.00
Wages and salaries	56,019.00	-	56,019.00	56,019.00
Insurance and other benefits	10,546.00	-	10,546.00	10,546.00
Taxes and charges	2,709.00		2,790.00	2,790.00
Other	69,547.00		58,496.00	69,547.00
Depreciation	-	19643.00	-	19,643.00
Total	518,197.00		473,300.30	527,455.00

* Consumption of goods is the value of goods sold at purchase price.

Wages and salaries were paid until the end of the year, as the balance sheet does not include any remuneration liabilities.

Source: own calculations.

The figures presented in Table 2 indicate that the largest discrepancies between the cost established using the accrual and cash methods arise in material assets and other purchases (costs). These differences result e.g. from the presence of stocks, which translate into the amount of purchase/expenditure. In the analysed company, the value of the purchased goods and materials was higher than their consumption (cost), which indicates the increase in the stocks of these assets at the end of the year as compared to its beginning. Additionally, in these cases the cash- and accrual-based costs are considerably

different, which results in the first place from deferring the payments for the purchases. Secondly, we must remember that the cash-based cost should be adapted to the part of assets which affected the sales, not to the entire value of purchase, as a purchase of assets (even paid by cash) does not constitute a cost and implies the exchange of one value (cash) for another (materials or goods). This means the purchase transaction does not influence the financial result – although in the accrual accounting such solution is allowed, at the end of the year the stocks are adjusted (the matching principle). In the

other items of costs by type, there are no differences between the cash-based and the accrual-based cost. This results from the fact that the company's financial report does not include any other liabilities. If they occurred, then the cash-based costs could differ from the accrual-based costs. A considerable difference between the cash-based and accrual-based cost also emerged in depreciation – for obvious reasons. It is commonly

known that depreciation is a cost² which does not imply any expenses³. The case of depreciation is arguable – some people do not treat it as a cost but as a benefit. It seems it is only important for tax purposes and serves as a tax shield.

Table 3 presents the revenue figures based on cash and the profit/loss on sales calculated using both methods.

Table 3

Profit/loss on sales and the difference between the result categories [PLN]

Item	Cash basis	Accrual basis	Difference
Revenues from sales	624,326.00	631,188.00	6,862.00
Core activity costs	473,300.30	527,455.00	54,154.70
Profit/loss on sales	151,025.70	103,733.00	-47,292.70

Source: own calculations.

The calculation gave two different values concerning the profit/loss on sales, and it appeared that with the cash method the entity would have recognised a sales profit being higher by over PLN 47,000, even though the revenues are almost PLN 7,000 lower than in the accrual method. The difference was caused by sales with a deferred payment term and by the increase of receivables between the end and the beginning of the year. However, the decisive factor that determined the result was the level of cost. The accrual method resulted in the fact that the costs were over PLN 54,000 higher than in the cash method, and it did not result from the exclusion of depreciation. If the circumstances and the length of the liabilities and receivables cycles were different, the situation could be entirely different.

As regards the balance sheet items, i.e. stocks, receivables and liabilities, the cash basis would not cause any differences compared to the accrual method.

Summary. Accrual is a common accounting solution applied by Polish business entities. The cash basis is being abandoned, even though it may still be observed in the cash flow statements and in the public sector entities. Accountants justify their exclusion of the cash basis by difficulties related to the inconsistency of accounting systems. It seems to be just an excuse supported by the rules applicable in the Polish balance sheet law. The article is not aimed to convince anyone of the superiority of one method over the other, but allows to show (using real figures) how the core activity result would look like with the use of both approaches. The analysis reveals differences between the amounts of revenues, costs and profit/loss on sales. The most significant discrepancies can be observed in costs, which results from the liabilities and depreciation which in the accrual method constitutes a cost by type, but in the cash method it does not imply any decrease of the financial result, treated as cash. The compared figures prove the existence of differences that depend on the use of one of the two methods, which means the hypothesis expressed in the introduction is

true. The results present the financial performance of the entity's core activity and indicate that the company can meet the going concern principle. The applied solutions are irrelevant for the presentation of the company's property in the balance sheet, which will anyway contain receivables, liabilities and stocks, regardless of the approach used to determine the categories included in the result.

4 References

- Bereżnicka, J., Błażyńska, J. (2016). Accounting systems and the information needs of contemporary stakeholders, *Economics and Business Review (in press)*.
- Błażyńska, J. (2015). Użyteczność informacji finansowych sprawozdań finansowych, Wydawnictwo Uniwersytetu Ekonomicznego, Poznań.
- Dobija, M. (1999). Rachunkowość zarządcza i kontroling, WN PWN, Warsaw.
- Dwornik, R. (1998). Biorąc prawa poważnie, Wydawnictwo Naukowe PWN, Warsaw.
- Hart, H. L. A. (1998). Pojęcie prawa, Wydawnictwo Naukowe PWN, Warsaw.
- Jargiello, A. (2000). Podstawy rachunkowości, Wydawnictwo Akademii Rolniczej w Lublinie, Lublin.
- Karbownik, L. (2014). Wykorzystanie podejścia memoriałowego i kasowego w ocenie operacyjnego bezpieczeństwa finansowego przedsiębiorstw sektora TSL, Wydawnictwo Uniwersytetu Łódzkiego, Łódź.
- International Financial Reporting Standards 2007, International Accounting Standards Board, The Accountants Association in Poland, Warsaw.
- International Financial Reporting Standards (IFRS) (2011). International Accounting Standards Board, The Accountants Association in Poland, part A, Warsaw.
- Skrzywan, S. (1968). Teoretyczne podstawy rachunkowości, Warsaw.
- Tracy, A. J. (1996). Sprawozdania finansowe, Warsaw.
- Walińska, E. (ed.) (2012). Rachunkowość. Rachunkowość i sprawozdawczość finansowa, Wolters Kluwer Polska, Warsaw.
- Zeff, S.A. (1999). The evolution of the conceptual framework for business enterprises in the United States, *Accounting Historians Journal*, vol. 26, no. 2, pp. 89–131.

² The literature includes the notion that depreciation is only an accrued cost (Dobija 1999, p. 81) or a non-pecuniary cost (Jargiello, 2000, p. 194).

³ It is obviously disputable, as the company must first expend a certain amount of cash to purchase a fixed asset, but this article does not focus on the case of depreciation, so the issue is skipped.