# THEORETICAL STUDY OF THE ACCOUNTING PRINCIPLE OF PRUDENCE, REVENUE RECOGNITION AND THE PRINCIPLE OF IMPARITY IN TREATMENT OF ASSETS AND LIABILITIES

#### **ABSTRACT**

In recent years, the accounting in Europe has mainly developed within two schools of accounting: the Central European or German school of accounting and the Anglo-Saxon or English one. Fundamental differences between the two are evident not only in the accounting area; they derive from different ways of thinking and views regarding some vital issues of life and economy, and particularly regarding the role of government and legislation in taking important economic decisions and adopting other solutions. One of the basic assumptions in accounting is the assumption of prudence, which also determines and influences, directly or indirectly, other accounting assumptions, principles and rules in preparation of financial statements. It is therefore extremely important to know what its theoretical concept is and how it is treated. The article gives the theoretical foundation of the principle of prudence and explains its importance and impact on financial statements.

Key words: accounting, the principle of prudence, revenue recognition principle, imparity principle, risk, fair value

#### 1. INTRODUCTION

Accounting is understood as the basic information activity in business comprising the harmonised complexity of financial reporting on the basis of book-keeping, budgeting, accounting supervising and accounting analysis of assets, liabilities, revenues, costs and expenses (the principle of accounting function content – Code of accounting principles, 1995). In Slovene and foreign theory, accounting has been dealt with in detail. Since the activity is extremely wide, some of the areas are theoretically dealt with at length and some not. The majority of theoretical articles discuss individual areas; the areas of cost accounting and business accounting are extensively researched as well as some other ones. Most probably, financial accounting is most important. Financial accounting deals mainly with the needs of owners, investors, creditors and the state (Turk et al., 1999, p. 27). Therefore, financial accounting is above all focused on financial statements and reporting on financial position and profit or loss of a company.

The objective of financial statements is to assure information on the financial position of a company (effectiveness and changes in this position) that is useful to a wide circle of users in their decision making process. The information is to be prepared on the basis of some basic accounting rules. They shall include accounting assumptions, accounting principles and other rules that are to be considered in preparation of financial statements and that are normally defined in international and also national accounting standards. When considering the basic accounting assumptions it can be established that they are determined as a tenet, theorem,

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law; they shall be taken for granted, understood and cannot be changed. Any different application or change in these assumptions can shake the basic elements of accounting that the accounting profession applies more or less uniformly in the world. One of these basic accounting assumptions is also the principle of prudence in preparation of financial statements.

The essence of the principle of prudence<sup>1</sup> can be written also as a statement; it is assumed that numerous transactions are inevitably connected to uncertainty and thus financial statements are to be prepared so that uncertainty of future events and transactions is shown in the present balance of assets and liabilities and profit or loss. Risk is the basic factor that directly and indirectly defines the use of the principle of prudence (Odar, 2003, p. 61).

The application of the principle of prudence is one of the vital questions of accounting, valuation of assets and liabilities and establishment of profit and loss. Mainly in Central-European countries, the application of the principle of prudence has indirectly directed the development of the accounting profession for decades and it has had a significant influence on the theory about the preparation of financial statements and presentation as well as measuring of items of assets and liabilities. It can be also said that its influence is decisive and it has directly and indirectly transferred its genuine character of conservatism on the way of thinking and understanding of complex processes of social and economic understanding, presentation of data and information on company operations. In spite of the facts mentioned it is surprising that the principle of prudence is not theoretically discussed in great detail in technical literature and thus some theoretical characteristics are presented in further sections.

#### 2. THE BACKGROUND OF THE PRINCIPLE OF PRUDENCE

The principle of prudence consists of:

- the principle of revenue recognition<sup>2</sup>. According to this principle financial statements can include only earned »profits«"<sup>3</sup>,
- the principle of imparity in treatment of assets and liabilities according to which the lowest possible values are used for balancing of assets (assets shall not be overestimated) and the highest possible values for balancing of liabilities (liabilities shall not be underestimated). In compliance with this principle expenses are rounded-up and revenues

<sup>1</sup> In accordance with Art. 37 of the Framework for the Preparation and Presentation of Financial Statements prudence is defined as a quality characteristic of financial statements: "In spite of everything, persons preparing financial statements shall face uncertainties that are inevitably connected to numerous events and circumstances such as collectibility, doubtful receivables, possible useful life of devices and equipment and number of guarantee claims that might appear. Uncertainties of this kind are considered so that their kind and scope are disclosed and prudence is applied in preparation of financial statements. Prudence is adequate caution in judgement required for preparation of assessments needed in uncertain circumstances; this can be assured by presenting assets and liabilities in amounts that are not too high and liabilities and expenses in amounts that are not too low. Prudence does not mean that hidden reserves or too high long-term provisions can be formed or a too low amount of assets or revenues or a too high amount of liabilities or expenses are presented intentionally since financial statements would not be objective and thus unreliable."

<sup>&</sup>lt;sup>2</sup> This is a principle of revenue recognition; in foreign literature it is often called *realisation principle or revenue recognition*.

<sup>&</sup>lt;sup>3</sup> It is not only profits that are concerned here; profit or loss of a transaction can be also loss. In this case the principle of revenue recognition is already connected with the principle of causal connection of revenues with expenses.

It is not only profits, but also revenues. Data about revenues (principle of revenue recognition) and expenses are to be known for the establishment of profit as the category of profit or loss. Some types of revenues cannot be ascribed to expenses (in the same company) in accordance with the causal connection of revenues with expenses. Thus recognised revenues are simultaneously profits, for example profit sharing.

are rounded-down in the income statement and they consider depreciation and provisions regardless of the fact if profit or loss for a financial year is therefore profit or loss.

Consistent consideration of the principle of prudence assures that assets or revenues are not presented in too high values, and liabilities and expenses not at too low values. Simultaneously, the application of the principle of prudence does not mean that hidden reserves or too high long-term provisions or a too low amount of assets or revenues or a too high amount of liabilities of expenses can be formed since financial statements would not be objective and thus reliable.

## 2.1. Theoretical treatment of the principle of revenue recognition

The principle of revenue recognition defines the point of time when revenues are recognised. This principle is closely connected with the assumption of causal connection of revenues with expenses. At the moment when revenues are recognised, expenses that incurred these revenues are recognised as well. Although it is not immediately clear, the principle of recognition is one of the most important and theoretically one of most demanding principles. A general rule can be formulated that revenues mean inflows of economic benefits and thus an increase in assets or a decrease in liabilities as a consequence of a company's operation and outflows of goods and services from the company.<sup>4</sup>

The principle of revenue recognition can be divided into two groups. Theoretically, revenues are recognised as:

- earned or
- realised or realisable.

Earned revenues are considered when a company has fulfilled all criteria that justify it to gain benefits related to revenues. Realisable revenues are considered when the process of recognition of earned revenues is completed or almost completed. Revenues can be recognised also if the process of recognition of earned revenues has not been completed yet, but the costs that will incur in this connection can be reliably measured.<sup>5</sup>

The basic logic of the principle of revenue recognition derives from the aspect that revenues are recognised when a payment has been received or when there is no uncertainty relating to receipt of a payment. Revenues are realised when receivables for payment are formed. As it has been already mentioned, it is most important from the aspect of accounting to define a point when revenues are recognised; this point can be close to the beginning of the process of recognition of earned revenues or it is defaulted. Default is most often a consequence of poor reliability of information in the process of recognition of earned revenues. The more reliable the information in the process of recognition of revenues, the faster (normally) the recognition of revenues.

The moment of delivery of a product or service is relevant for the recognition of revenues. Revenues can be recognised:

- at the moment of delivery of products or services<sup>6</sup>,

<sup>&</sup>lt;sup>4</sup>In the complete operation of a company, total revenues charged are to flow to the company in form of a cash flow. <sup>5</sup>In accordance with International Accounting Standard 18.14 revenues are recognised when the following conditions are met:

<sup>-</sup> a company transfers important risks and important benefits related to ownership to a buyer,

a company does not keep the extent of co-operation in managing that is usually connected to ownership, nor actual decisions on sale,

<sup>-</sup> the amount of revenues can be reliably measured,

it is probable that economic benefits connected to a transaction will flow to a company,

costs incurred or those that will be incurred relating to business can be measured reliably.

<sup>&</sup>lt;sup>6</sup>In foreign literature, recognition at the moment of delivery of products or services is named *point - of - sale - method*, or sometimes *sales method* or *delivery method of revenue recognition*.

- after the delivery of products or services<sup>7</sup> or
- before the delivery of products or services<sup>8</sup>.

The principle of revenue recognition is closely connected to the assumption of accrual<sup>9</sup> and to the assumption of causal connection of revenues with expenses<sup>10</sup>.

#### 2.1.1. Recognition of revenues at the moment of delivery of products and services

Most often revenues are recognised at the moment of delivery of products and services. This moment is defined as a point when the ownership is transferred from the seller to the buyer; i.e. most often this is a legally defined moment. From the aspect of the principle of prudence, revenues are recognised at this moment, although there is a possibility that they will not be realised. There shall be a minimal possibility of their non-realisability when revenues are to be recognised. Strong relying on the legal transfer of title and consequently recognition of revenues can result in non-respect of the principle of prudence and the rule of substance over form. The legally defined form of business prevails mainly due to practical reasons of such approach. Usually, uncertainties related to the recognition of revenues and the realisation of receivables as well as to the principle of prudence are considered only subsequently by the application of the principle of imparity; otherwise the principle of revenue recognition requires them to be recognised at the moment of delivery of products and services.

# 2.1.2. Recognition of revenues after the delivery of products and services

Revenues are recognised after the delivery of products and services mainly when

- there is a right to return a product and/or
- when collection of receivables is uncertain<sup>11</sup>.

Revenues from sale of products for which it is probable that they will not be paid and will be returned, which is in accordance with the right to return the products sold<sup>12</sup>, cannot be recognised. A question can be asked, how this fact is to be presented in terms of accounting. Since sold products are concerned here that are still connected to the risk of payment, revenues cannot be recognised and have to be deferred.<sup>13</sup>

More complicated is the uncertainty in the collection of receivables, especially those deriving from instalment sales. In such cases, revenues are not recognised – only if there is high

<sup>&</sup>lt;sup>7</sup>In foreign literature, recognition of revenues after the delivery of products or services is named *instalment method*, *cost recovery method* or *right of return expiration method*.

<sup>&</sup>lt;sup>8</sup>In foreign literature, recognition of revenues before delivery is most often called a *completed - contract method* or *percentage - of - completion method*.

<sup>&</sup>lt;sup>9</sup>In this case, the connection can be illustrated by leasing assets and recognition of revenues from services. Determination of the moment of revenue recognition in the permanent delivery of services is concerned here. The case of interest and licence fees is similar.

<sup>&</sup>lt;sup>10</sup>Some revenues are to be recognised only after the delivery of products or services and not already at the time of receiving payment for them due to consideration of the assumption of causal connection of revenues to expenses. In spite of payment, these are non-earned revenues since the process of recognition of earned revenues has not been completed yet. It is an obligation to produce and deliver products and thus such revenues are not recognised, but only classified as accruals or deferrals.

<sup>&</sup>lt;sup>11</sup>For example long-term instalment sales.

<sup>&</sup>lt;sup>12</sup>This method is characteristic of the publishing business.

<sup>&</sup>lt;sup>13</sup>Such deferrals shall be presented as an opposite entry of receivables from products sold or as an allowance for receivables that has been formed due to valuation of receivables. Due to the assumption of causal connection of revenues with expenses it is also necessary to recognise expenses in an adequate portion. In order to be consistent, it would be required to separately present also the influence of such presentation on interim results in income statements. In accordance with Variant I of SAS 25.2 gross profit from sales would be presented besides deferrals of gross profit from sales.

uncertainty regarding the collection of receivables (Chasteen, Flaherty and O'Connor, 1998, p. 350). Presentation is equal to the presentation described in the previous paragraph.

If these two cases are studied in detail, it can be established that this is the effect of the application of the principle of prudence. But its effect is slightly different in these two cases, since its role basically becomes evident in its indirect effect. In these cases, allowances for the value of assets downward or formation of liabilities in their maximum amount are not concerned, but the effect of the principle of prudence is shown in deferred (non-recognised) revenues due to uncertainty. Revenues are recognised subsequently, when the cost recovery method<sup>14</sup> is applied. As the name explains, total cost relating to products and services sold is initially recognised in accordance with this method. Cost (for example cost of research) is not capitalised in order to include it in expenses relating to revenue recognition under consideration of assumption of causal connection of revenues with expenses. Also the roots of this method are in the principle of prudence requiring the expenses to be immediately recognised due to high uncertainty of an amount of possible recognised revenues<sup>15</sup>. Profit is established only when all uncertainties relating to recognition of revenues are eliminated or when the total capitalised cost is recognised as revenues. In this case, the principle of prudence prevails over the principle of causal connection of revenues to expenses. In accordance with the strictest variant of the effect of the principle of prudence it can be even required that capitalisation of costs shall not be allowed in this case and the cost shall be recognised immediately when incurred, but this extreme cannot be considered, if it is justifiably expected that the production will start, products will be also sold and revenues recognised. In spite of that, a significant difference shall be considered. In accordance with the principle of prudence the costs cannot be recognised immediately upon accrual, if it is justifiably expected that economic benefits will be gained from these transactions. Basically, the use of cost recovery method derives from the recognition of capitalised costs under consideration of conditions allowing capitalisation. Immediate recognition of expenses from capitalised assets in the amount of recognised revenues is concerned here due to the existence of considerable uncertainty relating to revenues. Recognition of expenses would not be necessary here due to consideration of the assumption of causal connection of revenues with expenses. This means that the initial recognition of revenues does not result in recognition of profits; these will be established and recognised when total capitalised costs have been capitalised. 16

#### 2.1.3. Recognition of revenues before the delivery of products and services

At a first glance, this method of revenue recognition is contrary to the principle of prudence. In rare cases, revenues can be recognised also before the delivery of products and services. Certain conditions shall be met for such recognition. One can derive from the assumption of causal connection of revenues with expenses. If total expenses have already been recognised, there is no uncertainty relating to production, sales and collection, or it is minimal, there is no reason that would prevent revenue recognition. Even more: revenues are to be recognised in such circumstances. If they were not, one can ask, which conditions would then have to be

<sup>&</sup>lt;sup>14</sup>In American literature this method is called *cost recovery method*, but can also be defined as a *sunk cost method*.

<sup>&</sup>lt;sup>15</sup>This method is usually used in production requiring high development and research cost, but sales can be only hardly predicted and planned. An example of it would be development and production of new planes.

<sup>&</sup>lt;sup>16</sup>All these facts apply if profit or loss is positive. This logic is not acceptable in case of loss, since then the principle of prudence shall be considered and loss would have been recognised earlier. These are the so-called *contingencies*.

fulfilled for revenue recognition. In such cases the application of the principle of prudence would gain completely new dimensions and it would be more closely connected to cash flows<sup>17</sup>.

### 2.2. Theoretical treatment of the principle of imparity of assets and liabilities

The principle of imparity of assets and liabilities is the principle presenting the core of the principle of prudence when valuating balance sheet items. Recognition of revenues is certainly important for the principle of prudence, but this fact derives from the income statement. It is true that consequences of effects of this principle are shown also in the balance sheet, but their influence is not strong when compared to the principle of imparity. The principle of imparity derives from the valuation of balance sheet items under consideration of the principle that assets shall not be overestimated and liabilities not underestimated. Basically, the principle of imparity of assets and liabilities collides with the basic principle of equivalent receivables and liabilities and revenues and expenses, of course, when its effect has been analysed in the complete economic area. The effect of the principle of imparity or the assumption of prudence does not allow the application of the assumption of causal connection of revenues with expenses and this principle intervenes with the principle of accrual at a macro level. The principle of connection between receivables and liabilities has not been adhered to any longer. It shall be immediately added that these statements are true if clean categories, the corrected categories arising from the principle of accrual are compared.

Due to the application of the principle of imparity of assets and liabilities, allowances<sup>18</sup> for assets or even write-offs appear or assets are additionally amortised. In each case, expenses are immediately recognised by such decrease in assets. They are recognised also for each increase in liabilities, if there is a possibility that they will have to be recognised. Revenues are not recognised from the national-economic aspect. This principle of imparity of assets and liabilities is to be viewed from the aspect of time, since assets and liabilities are to be revalued and allowances eliminated if there are no reasons of decrease in assets or increase in liabilities.

#### 2.2.1. Theoretical treatment of the principle of imparity of assets in a time period

When applying the principle of imparity of assets in a time period it could be said that temporary application of the principle of prudence is concerned. It is temporary since the reality of previous valuation can be established only when assets are disposed. At this moment, the effect of the principle of revenue recognition is evident, when errors possibly made by the application of the principle of imparity of assets in a time period are corrected. At a final level, this consideration leads to a finding that the principle of imparity of assets is actually the principle that may influence the establishment of profit or loss to a maximum extent and it enables formation of hidden reserves. And the contrary: non-application of this principle and application of the bases for measuring of items in financial statements at historical value can result in losses that are not recognised or are recognised only at the moment of disposal of assets or payment of liabilities.

When deriving from point t = 0 where assets have been acquired at historical value, the assets in points t = 0 + 1, t = 0 + 2 ... t = 0 + z - 1 are valued under consideration of the principle

<sup>&</sup>lt;sup>17</sup>It is interesting to know the considerations of some supporters of (too) strict application of the principle of prudence and the principle of accrual who maintain that it would be necessary to recognise revenues due to uncertainty of realisation when cash flow is provided.

<sup>&</sup>lt;sup>18</sup>For example allowances for receivables.

of imparity of assets and liabilities. In point t = z, i.e. the point of disposal of assets, the difference between the historical value and its allowance is offset. If assets are overestimated at this point, expenses are recognised in the amount of the difference. If assets are underestimated at this point, revenues are additionally recognised by this difference. Hidden losses and hidden profits, their recognition as well as off-set by expenses or revenues are thus eliminated.

At some point that appears after point t = z, let's call it point t = n, the process can still be uncompleted, since revenues may not be recognised yet due to the principle of revenue recognition in points t = z, t = z + 1, t = z + 2 to point t = n. They are finally recognised only in point t = n, when a payment is made and cash flow provided; this means that a period of hidden reserves is possible from point t = 0 to point t = n. It shall be also added that in the period from point t = 0 to point t = z the probability of hidden reserves is significantly higher, since there is normally no uncertainty relating to recognition of revenues, except in section referring to their realisation in point t = z.

At this point, it shall be interesting to know what happens in points t = 0 - 1, t = 0 - 2, t = 0 - 1y and in points t = n + 1, t = n + 2 in t = n + s. At a first glance, it can be maintained for the period before point t = 0 that it is not connected with the principle of prudence at all. This is true, but a critical point is point t = 0, i.e. the moment of asset acquisition. Due to the use of historical value as the basis for measuring of items in financial statements, expenses are usually not recognised at this point under consideration of the principle of prudence. <sup>19</sup> There is a contrast between the initial valuation at historical value and the effect of the principle of prudence. The period of time before point t = 0 is indirectly connected to the company concerned or in detail, no transactions are made in this period that are connected with the observed transaction that was made in point t = 0. When thinking broader it can be established that some transactions were carried out before point t = 0, and these transactions are related to evaluation and can influence it. This is the effect of the principle of going concern: a company has already operated<sup>20</sup> and thus expenses have been incurred. Part of costs has referred also to the activity; it can be concluded that part of expenses referring to the transaction observed has already been incurred and recognised. It is true that these values are normally negligible and therefore not recognised.

A similar question can be posed also in the period after point t = n. The question is how long the effect of the principle of prudence is. A simple answer would be until economic benefits are gained for the company, i.e. until collection. Even when the uncertainties mentioned that are connected to the application of the principle of revenue recognition are neglected and if the theses is accepted that the moment of revenue recognition economic benefits are obtained for the company – i.e. the principle of revenue recognition has been completely recognised – this situation has to be analysed. The principle of prudence and more exactly the principle of imparity of assets and liabilities can have influence also on these assets. It is true that this is the most liquid form of assets that shall be normally changeable to another form at any moment, but even the most liquid forms of assets are exposed to risks. In this connection, the most frequent risk is related to a decrease in purchasing power of money. This is not only devaluation of money, but everyday exposure to inflation movements and decrease in exchange rate of national currency. In the business process, liquid assets are again transformed and then the circle of asset transformation starts or continues in point t = 0.

The company does not co-operate in devaluation of assets that depend on the environment and thus a comparison with other companies in the country is possible. Problems appear already in

<sup>&</sup>lt;sup>19</sup>Expenses can be also defined as a difference between the historical value and for example, fair value of assets acquired.

<sup>&</sup>lt;sup>20</sup>Transactions with known companies that have won recognition by their operation are made differently than transactions with unknown companies.

the comparison of companies in two countries. In such case, comparability is assured only by the use of the same devaluation rate or revaluation of assets either due to inflation<sup>21</sup> or exchange differences. In practice, differences due to exchange differences are usually not off-set<sup>22</sup>. It can be said that that the principle of prudence is adhered to and the situation relating to inflation is similar. Only in some rare countries, assets are directly or indirectly revalued due to a decrease in value of national currency and revenues are consequently recognised by considering the principle of prudence and the principle of imparity of assets and liabilities according to which the assets shall not be overestimated. They are not overestimated on the internal market, but external influences and possibilities of their sale on external markets are to be taken into account in the period of unlimited expansion and connection of markets.

The following can be concluded on the basis of the facts mentioned:

Risks and uncertainties are increasingly present in the business world. The application of the principle of prudence reflected also in the principle of revenue recognition and the principle of imparity of assets and liabilities, the risk shall be eliminated to the highest possible degree. The principle of prudence can be understood as the assumption always present in asset transformation, and its effect is cyclical.

### 2.2.2. Theoretical treatment of the principle of imparity of liabilities in a time period

Contrary to the principle of imparity of assets in a time period, the principle of imparity of liabilities in a time period requires valuation of liabilities at the highest value. A starting point is that liabilities are initially measured at historical value, which means that assets are received or other liabilities are decreased by the amount of received assets or decreased liabilities when liabilities are incurred. When deriving from point t = 0, where liabilities have been measured at historical value, the liabilities in points t = 0 + 1, t = 0 + 2 ... t = 0 + z - 1 are valued under consideration of the principle of imparity of liabilities in a time period and they can only increase. In point t = z, i.e. in the point of payment of liabilities, liabilities are re-calculated, as well as the difference between the historical value of liabilities and their increase. If liabilities are underestimated at this point, expenses are to be recognised in the amount of the difference. If they are overestimated, the recognised expenses are to be eliminated or revenues recognised. If the principle of prudence were not adhered to, the difference would mean hidden (concealed) liabilities due to underestimated liabilities.

It may happen that the process has not been completed in point t = n, since expenses in points t = z, t = z + 1, t = z + 2 in t = n may not be completely recognised due to the principle of expense recognition. They are completely recognised only in point t = n, when liabilities are covered; the period of hidden liabilities is possible from point t = 0 to point t = n.

From the aspect of the principle of imparity of assets and liabilities attention is to be paid to another point in case of hidden liabilities, i.e. incurrence of liabilities without their exchange for an asset or decrease in other liabilities; historical value does not exist at all. Liabilities are not incurred and not related to assets or liabilities. But expenses are concerned that shall be immediately recognised in accordance with the principle of imparity of assets and liabilities. Since these liabilities will be covered only in future, their value at a present moment is to be established by decrease in debts in accordance with the principle of imparity of assets and liabilities. In relation to exchange differences and the influence of changes in the purchasing power of money the same applies as in case of the principle of imparity of assets and

<sup>&</sup>lt;sup>21</sup> Inflation that is relatively low – it ranges from 2% to 5%, is present even most developed countries of the world, including the USA, Japan and the EU states.

<sup>&</sup>lt;sup>22</sup>In case of decrease in national currency.

<sup>&</sup>lt;sup>23</sup>Annual repayment of debts will be neglected in this section or it will be assumed that the debts and interest are paid at the end.

liabilities; exchange differences are normally recognised and the questions of inflation remain unanswered. In this connection, mainly questions relating to maintenance of capital value can be problematic.

# 2.2.3. Critical treatment of the principle of imparity of assets and liabilities in a time period

The principle of prudence and the principle of imparity can be criticised or praised, it all depends on the aspect they are studied from. A view of assumptions, principles and rules shall namely be objective, i.e. professional and mostly independent of various interests. Unfortunately, this is not the case. The greatest supporters of the principle of prudence justify their preference of this principle by its uncertain future (which is true). But a question shall be posed, how uncertain this future is and by which methods the risk can be eliminated. And another question is: what happens when all events show that the future is not risky or that it is not so risky?

Some other questions are asked as well. Financial statements deal with the past, i.e. with the transactions that have already occurred and can no longer be influenced. Of course, one does not live, work or think because of the past and the objective of financial statements is not assurance of information on past transactions. Why shall past transactions be burdened by expectations of the future and viewed through the prudence? Some say: why not? Whenever future is discussed, questions relating to risks are always to be dealt with.

# 3. RISK AS THE MOST IMPORTANT CHARACTERISTIC OF THE PRINCIPLE OF PRUDENCE

The application of the principle of prudence is urgent mainly due to uncertainty or risks relating to uncertain future. The following thesis can be supported: if there were no uncertainty relating to financial statements, there would be no need to apply the principle of prudence. Moreover, this can be continued: each operation is related to uncertainty and is thus risky. One derives from an assumption that there is no operation without a risk. But special attention is to be paid also to the other side of uncertainty, which is a consequence of the previous statement. Since each operation is related to uncertainty, there is awareness about this fact and each participant in economic activities suitably adjusts its action and reaction to this uncertainty. Actions of the participants in economic activities are various, they depend on their view of risks and the assessment of the risk they are or they will be exposed to. Actions range from the most optimistic to the most pessimistic scenarios. Of course, each participant in economic activities reacts differently to risks. Some try to protect against them and the others view them as their opportunity. Therefore risk is the motive power that forces participants to search for new ways to decrease risks that reflect in constant search for new ways of thinking and operation of individuals. Those who do not view an uncertainty from the aspect of development, i.e. optimistically, are pessimistic and uncertainty in future increases their fears at present. It results in a real view of the future in present time and it can be said that in some cases they have a negative view of all possible events that may happen. Such thinking and each such view of the future are mainly consequences of the human fear of the unknown. The fear is even greater if experience with carrying out our assessments of expected and non-expected events and happenings in the future is poor. Here, a real assessment and real view are concerned – both based on experience – relating to possible events and development of events in uncertain, unpredictable and unknown future.

In relation to the future and the influence of predicted events on the present one shall consider also which component has the strongest influence on the present response on expected events.

There are several components and the following rule applies: normal<sup>24</sup> human fear of the future is progressive with time distance of the possibility of appearance of an uncertain event. The following statement can be made on the basis of this fact: the more distant is the future, the greater is the uncertainty and risks connected with it, since the effect of several unknown elements in various directions is possible. Of course, such a consideration does not refer to the absolute proportion of time, but to a reasonably long predictable period<sup>25</sup>.

On the basis of these starting points the influence of uncertainty on the appearance of an event will be discussed as well as the application of the principle of prudence. The following theses are used as starting points:

- 1. Uncertain future and relating risks have lead to the application of the principle of prudence.
- 2. The principle of prudence is not the principle of the past that is normally less interesting for users of financial statements or their knowledge about the past is only the basis for the assessment of the future; the principle of prudence shall show the present<sup>26</sup> understanding and expectations about events in the future.

In other words: the principle of prudence in financial statements shows understanding of the question of elimination or cancelling out of risks related to events in an expected (unpredictable) future. It is the assessment of future events where risks are not considered. When viewing it from the present moment, it is expected that the expected risk of events in future will be eliminated by an exponent function of expectations. Or - a discount rate is applied and defined in this connection. We can ask ourselves if a risk is proportional in the dimension of time or a function of exponent relation or if any other function is taken into account. When deriving from the assumption that uncertainty in a time period t = 0 equals t = 0, a question can be asked about uncertainty in a time period t + 1, t + 2 in t + n. Under consideration of higher risk and simultaneous wish for its elimination an answer to this

<sup>&</sup>lt;sup>24</sup>It is the assumption of abstract future without any influences of possible events that may otherwise happen, but they are unpredictable in a long period of time on one hand and on the other, they may happen or not (for example: wars, world economic crisis, thinking about the end of the world, floods, etc.).

<sup>&</sup>lt;sup>25</sup>An expected duration of life of an individual is understood as a reasonably long predictable period of an individual. Similarly, a reasonably long period for a company is a period of its abstract unlimited period of time of its operation, where it shall be considered - when thinking in real terms - this period shall be shortened from an abstract endless period to a period that is in the interest of individuals related to studying of the company, i.e. it can be the longest period of the expected company's operation.

<sup>&</sup>lt;sup>26</sup> Discounting – if interest is understood as a premium charged for risks - means valuation of the present value of expected and possible events in the future, defined on the basis of present knowledge and understanding.

In this equation with three X factors where the present value is the result of estimated expected value and estimated discount rate, the latter is the highest X factor. A discount interest rate is most often used as a discount rate. One can join the concept that the interest rate (Which? – Usually the one for long-term time deposits) is the closest approximation by which the present value of expected events in the future is defined. An in-depth analysis of this rate can show that this is one of the rates which is significantly subject to the factors, mainly in the banking sector that importantly influence its size. Such thinking and search for better discount rates can also lead to an idea deriving from the present situation: why is the future interesting for us? What is the influence of the past on me, why do I actually deal with it? We are living in this moment – we are thinking and working as if there was no yesterday and there will be no tomorrow or it will be as it will be and we will adjust to it tomorrow. Without being aware, such provocative thinking can lead to the denial of the past (historical base principle), denial or to unawareness of the future (decrease in risk) and transfiguration of the present or definition of value or valuation of realisation of an event (realisation principle). The starting point is the present that is defined also as the moment of possession (touching and feeling) of something which can assure predominance over somebody and we can thus obtain a better position. And it is not important who this is. It is the philosophical assertion of predominance over a man – a better one, enriched by the benefits of the position over others. And where is the present now, what is the position of risks, who and how much is one prepared to forgo something that endangers satisfaction, comfortable position and joyful events of the present? This paragraph has been written only to support provocative thinking about the application of the principle of prudence and its comparisons with the real and fair presentation of data and use of fair value.

question would be: in a time period  $t = 0 \rightarrow n = 0$ ; in a time period  $t = 1 \rightarrow n = n$ , in a time period  $t = 2 \rightarrow n = n^2$ ; thus:  $t = n \rightarrow N = N^n$ . (Exponent) prudence is higher in a time unit. The exponent ratio relating to the use of discount rate could be defended by the statement that a risk exists also in time t = 0, which proves that the above equation is incorrect since one derives from the assumption that there is a risk relating to the carrying out of a transaction up to the moment of funds inflow; consequently, it is true that also in  $t = 0 \rightarrow N \ge 0$  and: the uncertainty grows by the time unit of expected events. Here, it holds true that: N = u uncertainty—risk.

This is of course only one of the possible ways of explaining of the principle in a time period and elimination of this risk; nevertheless, determination of a discount rate is also one of the most relevant elements. The discount rate depends on the type of factors. Some theoreticians (Weitzman) who try to explain the complicated relations in the national economy by theoretical research by means of a matrix, state that the discount rate rises at a constant rate, increased by an error that is normally arranged in a time period (Hartwick, 2000, p. 78). Others (Kemp, Long's) who followed the ideas of Uzawa and Epstein believe that the discount rate is an endogenous variable that depends on the present situation, vector of a capital stock, but it can also depend on the vector of consumption level (Hartwick, 2000, p. 59). This problem and the complicated question will not be analysed in this section, since the answer to this question is not of key importance for the direct analysis of the application of the principle of prudence in accounting. But it is a fact that everybody has its own ideas about the future and uncertainties related to them due to its human nature. It can thus be maintained that the assessment of risk and uncertainties depends on an individual and usually two assessments are not equal.

# 4. THE PRINCIPLE OF PRUDENCE AND ITS INFLUENCE ON THE PRESENTATION OF CAPITAL IN FINANCIAL STATEMENTS

Since capital is the most important item in the financial statements that reflects all valuation methods, their changes and profit or loss, the rules of its appearance, increase, decrease and also termination are to be closely studied from the aspect of the principle of prudence. With respect to the analysis of the influence of the principle of prudence the following statement can be made:

"When assets of the company are presented at the lowest amount relating to their fair value, the higher is the original capital, the higher is the probability that creditors will be paid from the company's assets in case of company's termination; their confidence in the company can thus be high, since the risk that the funds lent will not be repaid, is low."

This statement is actually a consequence of consideration of the principle of prudence when preparing financial statements. It practically shows the essence of this assumption, its origin and consequences. If this statement is studied in detail, it can be established that valuation under consideration of the principle of prudence is mainly in the interest of creditors, since valuation under consideration of this assumption decreases the risk of repayment of the assets lent. It is thus closely connected to financing of the company. The majority of Central European companies prefers deciding on financing by own funds or taking a loan to increasing the capital of the company in order to meet the requirements for additional funds. Since banks are relevant lenders or creditors, they have a strong influence on decision-making; the reason of their high economic power and influence on decision-making can be also ascribed to the consideration of the principle of prudence. It is in the interest of creditors that the principle of prudence is adhered to in its strictest form in valuation of categories, i.e. assets are valued at the lowest possible amount and liabilities at the highest possible amount,

and also the original capital of the capital is highest. These two requirements lead to the same objective, i.e. to a decrease in risk of repayment of assets lent (for creditors).

Consideration of the principle of prudence is usually not in the interest of shareholders, since lower profit is established due to its effect than it would have been if the principle were not adhered to. Usually, it is also not in the interest of shareholders that the original capital is high. This phenomenon mainly applies to the initial original capital since the initial original capital is to be paid in money or in kind. Interests of shareholders relating to the increase in original capital can be quite different. If a company decides on the increase in original capital and consequently announces issuance of new shares that are to be paid, the interest of shareholders relating to payment can be different; those who do not wish to pay new shares can sell the right to purchase these shares. When a limited company increases its capital from the assets of the company, no payments are made by shareholders and thus shareholders consider such increase in original capital differently than an increase in capital by payments.

The American regulation of business corporations does not consider the principle of prudence in the described manner, since relations among shareholders are defined with respect to the original capital.<sup>27</sup> Contrary to the Central-European practice, according to which the original capital is to be always presented in the lowest amounts, the share capital<sup>28</sup> can be presented at a nominal value or without a nominal value<sup>29</sup> in the USA. Besides that, special attention shall be paid to the fact that the lowest value of a par value share is very low in the USA<sup>30</sup>. In case of par value shares and no-par value shares<sup>31</sup> and consequently original capital in the USA the same or similar role cannot be discussed that the original capital and also the nominal value of shares in Central Europe have. It is obvious that the original capital in the USA has no equal protective role for creditors as in Central Europe and the principle of prudence cannot be discussed in relation to its formation or increase.

Similarly as differences between the Central-European and American treatment of original capital have been discussed from the aspect of respect the principle of prudence, differences in treatment of other categories are to be explained. There are no significant differences relating to capital surplus. But some important differences appear in the treatment of other categories. American literature denotes the remaining part of the total capital as retained earnings<sup>32</sup>, which is a suitable concept in relation to their accrual. In the majority of Central-

management,

assets in case of liquidation and

- when all new issuances of shares have been acquired.

Summarised from: Kieso, Weygandt, 1998, p. 759 and 760.

<sup>&</sup>lt;sup>27</sup>Original capital is divided into shares. A share assures proportional sharing of

<sup>-</sup> profit or loss,

<sup>&</sup>lt;sup>28</sup>In Anglo-Saxon literature it is named *capital stock* or often *legal capital* or *stated capital*. Instead of the term nominal capital used in the Companies Act, the term original capital is used.

<sup>&</sup>lt;sup>29</sup>A share with nominal value (par value stock) and a share without of nominal value (*no - par value stock*). Usually, par value stocks are usually issued also in the USA. *No - par value stock* can have a stated value or not. Williams, 2000, p. 45.05.

<sup>&</sup>lt;sup>30</sup>At present, shares with very low nominal value (1 US\$, 5 US\$, 10 US\$) are most often issued in the USA, which is a dramatic change when compared to the beginning of this century when the lowest value was 100 US\$. The reason is the allowed sale of shares at a low value and avoidance of contingent liabilities. Kieso, Weygandt, 1998, p. 763 and 764.

<sup>&</sup>lt;sup>31</sup>Numerous US states allow the issuance of no-par value shares. These shares are issued without any statement of value on the share certificate. The reasons for the issuance of no-par value shares are mainly two:

no-par value shares enable avoidance of possible liabilities that may appear in par-value shares issued at a discount value.

There is some confusion relating to the concept and connection and non-connection between nominal value of a share and its market value; if no-par value shares are issued, such questions cannot be posed.

<sup>&</sup>lt;sup>32</sup>Retained earnings. More about the topic in: Kieso, Weygandt, Intermediate Accounting, 1998, p. 797 to 842.

European countries these remaining categories of capital are divided into minimally two categories; i.e. reserves and profits. In these countries<sup>33</sup>, the principle of prudence is the reason for formation of obligatory or statutory reserves,<sup>34</sup> applied for covering of loss and thus distribution of profit or its part among shareholders is made impossible. If a company makes loss, the integration of the principle of prudence into the legislation, regulating operation of commercial companies, achieves that creditors cannot be deprived or risk relating to repayment of their receivables is not significantly decreased. The risk cannot be completely eliminated, but the introduction of the instrument of obligatory or statutory reserves significantly decreases this risk.

The American regulation practically knows no reserves. At a first glance, it can be maintained that the principle of prudence is not considered due to this reason and receivables of creditors due from American companies are more risky. It shall be taken into account that total profit of a company is almost never distributed to its shareholders. Due to the fact that American companies have no reserves the policy of dividends in the USA is more important than in Europe.

Other types of reserves play a similar role as statutory reserves.<sup>35</sup>

Studying of the effect of the principle of prudence in capital only confirms the thesis that shareholders are interested in the application of this principle, which is not negative from their aspect. But the objective of financial statements is not protection of the funds borrowed from creditors, but assurance of information on a true and fair value of assets and liabilities to all users, i.e. also owners and simultaneously to make taking of decisions possible. Last but not least: the principle of prudence causes presentation of net profit that is normally lower than net profit established at fair value of assets and liabilities which also decreases profitability and results in investing in other sectors. Due to these factors the development is not as fast as it would have been, when the principle of prudence had not been adhered to.

### 5. CONCLUSION

If financial information is to be useful, it is to be reliable. The information is reliable when it contains no material errors and biased information and when users can rely on it that it presents the fact that is maintained to be presented or which is justifiably reckoned to be presented. The information can be also material, but unreliable relating to its type or presentation so that it may mislead the user who would use it. If the information contained in the financial statements is to be reliable, it is to be unbiased, or without any adjustments. Financial statements that influence decision making or assessments are certainly not unbiased due to the selection or manner of presentation that a certain results is to be achieved or certain consequences caused. Financial statements should give a true and fair view of the balance of assets and liabilities as well as business and financial results of a company. In some cases, the principle of prudence excludes the presentation of data in financial statements at fair value. It is the basic opposition between the presentation of assets and liabilities at fair value and consideration of uncertain future and thus the use of the principle of prudence. Among the rules for preparation of financial statements, the principle of prudence still occupies one of the

<sup>&</sup>lt;sup>33</sup>French limited companies and limited liability companies are to form legal reserves amounting to 10% of original capital and minimally 5 % are to be allocated for reserves every year. This legal requirement has an advantage over all the others. German regulation is very similar; a company is to form legal reserves amounting to 10 % of original capital before distribution of profit.

<sup>&</sup>lt;sup>34</sup>Réserve légale in France, gesetzliche Rücklagen in Germany, reserva legal in Spain.

<sup>&</sup>lt;sup>35</sup>Usually, reserves consist of legal reserves (reserves stipulated by the law), revaluation reserves (reserves from asset revaluation), statutory reserves (reserves defined in the statute /by-laws) and other reserves (reserves defined in the by-laws or decision of the meeting).

leading positions, mainly in Central Europe and almost all theoreticians of classical accounting school swear on it. It does not get such strong emphasis in the Anglo-Saxon world; in spite of that it has been considered and recommended in the accounting theory and practice. The influence of the principle of prudence on the preparation of financial statements is extremely important and has to be studied in detail. It is surprising that the effect of the principle of prudence, its influences on the preparation of data and information as well as financial statements and the consequences has theoretically never been studied in great detail, although Central-European accounting schools have considered it one of the most important accounting assumptions for decades. Even more: numerous authors usually state only that the principle of prudence shall be adhered to, but theoretically the rules and measures that should define how it is to be adhered to are not studied if not only superficially. Besides that the consideration of the principle of prudence is often in opposition to the effect of other assumptions, mainly the principle of causal connection of revenues and expenses and the bases for measuring of assets and liabilities at fair value. All these facts and several other questions have been a sufficient reason forf an in-depth study of the effect of the principle of prudence and presentation of results in this article.

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# TEORIJSKA ANALIZA DJELOVANJA RAČUNOVODSTVENE PRETPOSTAVKE OPREZNOSTI, NAČELA PREPOZNAVANJA PRIHODA I NAČELA NEJEDNAKOSTI AKTIVE I PASIVE KAO KVALITATIVNIH KARAKTERISTIKA BILANCIRANJA

#### SAŽETAK

Posljednjih godina se računovodstvo u Europi uglavnom razvijalo unutar dvaju škola računovodstva: one srednjeeuropske ili njemačke i one anglo-saksonske ili engleske. Osnovne razlike među njima vidljive su samo na području računovodstva; proizlaze iz različitih načina razmišljanja i gledanja na neka vitalna pitanja života i ekonomije, a posebno u odnosu na ulogu vlade i zakonodavstva pri donošenju važnih ekonomskih odluka i prihvaćanju drugih rješenja. Jedna od osnovnih pretpostavki u računovodstvu je pretpostavka opreznosti, koja također određuje i utječe, izravno i neizravno, na druge računovodstvene pretpostavke, načela i pravila pri sastavljanju bilance Stoga je iznimno važno znati koji je teorijski koncept u pitanju te kako se tretira. Članak iznosi teorijsku bazu načela opreznosti i objašnjava njegovu važnost i utjecaj na bilancu.

**Ključne riječi**: Računovodstvo, načelo opreznosti, načelo priznavanja prihoda, načelo impariteta, rizik, fer vrijednost