## STUDIA UNIVERSITATIS

# TOPICAL ISSUES RELATED TO TANGIBLE FIXED ASSETS DEPRECIATION

### Mihai P. IRIMIA, Florin Alexandru LUCA

"Gh.Asachi" Technical University, Iasi (Romania)

*Amortizarea* este, de fapt, un proces economic de recuperare treptată a cheltuielilor făcute cu factorul de producție, capital (cu imobilizările corporale și necorporale). Ea reprezintă *expresia valorică corespunzătoare deprecierii ireversibile a imobilizărilor corporale și necorporale, ca urmare a utilizării lor, a acțiunii agenților naturali și a progresului tehnic*. Unitățile economice numite entități vor determina amortizarea imobilizărilor corporale funcție de: a) durata normală de utilizare și b) de regimurile de amortizare admise, în mod legal – amortizare liniară, amortizare degresivă, amortizare accelerată (Legea nr. 15/1994 privind amortizarea capitalului imobilizat în active corporale și necorporale – actualizată, cu respectarea cerințelor Legii nr. 571/2003 privind Codul fiscal actualizat și a Reglementărilor contabile armonizate cu Directivele Europene, a IV-a și a VII-a).

The expenditures incurred by economic entities in order to carry out their business are finally reflected in the value (resources – production factors) consumptions within a given time. As a rule, their consumptions are included in the costs of production. Nevertheless, each production factor has a specific way of being consumed and a different contribution to the formation of the costs for that business activity. In other words, the consumption of the **capital factor**, including the **tangible fixed assets (also called capital assets)** occurs gradually by its participation in several business activities, during which it is subject to a continuous wear and tear and obsolescence, meaning an actual physical and value depreciation. The recovery of the value of this factor is called, in short, **depreciation** and it is actually a sum of money included in the cost of the activity (manufacture, product, work performed or service provided).

Depreciation is actually an economic process of gradual recovery of the expenditures incurred in connection with the production factor, capital factor (tangible and intangible fixed assets). It represents the value expression of the irreversible actual depreciation of tangible and intangible fixed assets, due to their use, to the action of environmental agents and technical progress. For the full recovery of the value of the capital invested in tangible or intangible assets, the depreciation should be calculated and registered in the books of that entity, and included in the expenditure of each financial year. The current requirements related to this cost element are stipulated in the Decree of the Ministry of Public Finances no.1752/2005, on the approval of the Accountancy Regulations consistent with the 4<sup>th</sup> and 7<sup>th</sup> European Directives, which state that "the depreciation of the tangible fixed assets is recorded as expenditure and is determined by means of rates applied to the input value in the assets of an entity". Also, investments in lakes, pools, ponds, land and other similar works are recovered by depreciation, by the inclusion of the operation expenses incurred in a period **decided by the managing board** or the person in charge of assets management. In Romania, the normal duration of operation of tangible assets is set by decrees passed by the government and updated every five years at the most.

Therefore, knowing the role of depreciation in the life of corporate bodies (entities) is very important, **both from the economic and financial viewpoint.** Thus, depreciation has, on the one hand, **an economic component** by the inclusion in the operation expenses of the equivalent value of the actual depreciation occurred, and, on the other hand, **a financial component**, by the constitution of annual resources required for the substitution of the fixed assets that lose, fully or partially, their value, or for the completion of the financing of newly acquired fixed assets.

It is generally calculated for most of the tangible and intangible assets, except for those that do not suffer any actual depreciation further to their use or due to environmental factors and obsolescence, like for instance: land, lakes, pools and ponds, which are the result of an investment, goodwill and the financial fixed assets and tangible assets beloging to the public property included in this category, financed by the state budget under the legal provisions (paintings and works of art), own rest homes, protocol houses, ships, aircrafts, others than those used for earning money, as well as any other fixed assets that do not lose their value in time further to its use.

Also, the following categories of tangible fixed assets are subject to depreciation:

- 1) investments in tangible assets that were rented, leased or acquired by tenancy agreement;
- 2) fixed assets that were partially commissioned, for which the registration papers were not yet filled out, as tangible fixed assets according to their **Classification catalogue;**
- 3) investments for exposing mineral deposits for the mining of useful mineral substances, as well as for the carrying out of underground mine-opening works;
- 4) investments in existing tangible fixed assets for the improvement of the initial technical parameters, with a view to obtaining future economic advantages (profit), which investments increase the input value of those assets;
- 5) investments for land development and lake, pool and pond acquisition, etc.

For the tangible assets that were rented, leased or acquired by tenancy agreement, their depreciation is calculated accordingly by the **economic entities** – **businesses that own them**. This depreciation is included, as the case may be, in: **the annual rental, in the amount of the rent or in the lease expenses**. In their turn, the assets that are the object of an **operational leasing agreement** are also written down by their **lessor**, with the possibility of the recovery of the whole value of the tangible assets less the residual value stipulated by the agreement for its duration.

Businesses called entities shall determine the depreciation of their tangible fixed assets depending on the following: a) the **normal operation duration** and b) the **depreciation methods stipulated by the law** – **straight-line depreciation, declining depreciation, accelerated depreciation** (Law no. 15/1994 on the depreciation of the capital invested in tangible and intangible fixed assets – with its later amendments and additions and with the observance of the requirements of the Law no. 571/2003 on the updated Tax Code and the Accountancy Regulations compliant with the 4<sup>th</sup> and 7<sup>th</sup> European Directives).

**The normal operation duration** is generally similar to the business operation durations. In this case, the income obtained from their operation should be higher than the costs of their operation, maintenance or repairs. As a rule, this duration is shorter than the actual life span of those assets (which is often influenced by the more or less corrosive environment they are used in, etc.). The writing down rates are applied to the input value or to the updated residual value, as the case may be, in order to be included in the expenditures of that financial year. Therefore, depreciation is calculated beginning with the month following the commissioning of the tangible fixed assets, and the full recovery of their accounting value should occur within their normal operation duration.

The business life spans for these assets are stipulated in the **Normal Operation Duration Catalogue and Fixed Assets Classification** (Government's Decree no. 2139/30.11.2004), distinguishing between the **three main groups of depreciable assets** (buildings; technical facilities, transportation means, animal stock and plantations; furniture, office automation, protection equiment for individuals, material values and other tangible assets), these groups being classified in **subgroups, classes and subclasses, including families,** with distinct codes. For identification purposes and in order to set the normal operation durations, they are given: 1) a classification code; 2) the name of group, subgroup, class, subclass and family; 3) the lowest and highest normal operation durations in years.

Each of these items also considers: a) the accounting input value; b) the residual re-valuated value to be written down; c) the total normal operation duration; d) the annual average rate (annuity) of straight-line depreciation; e) the annual average depreciation found in the records, etc.

In order for all the business entities to determine the depreciation of their tangible fixed assets, it is essential to consider the current legal depreciation means or methods that can be applied and used, namely: **a) straight-line depreciation; b) declining depreciation and c) accelerated depreciation.** 

**Straight-line depreciation** is a classical depreciation calculation method and consists of including in the operation expenditures certain flat amounts that are set depending on the number of years of the normal operation duration of the tangible assets, approved by the managing board of that entity. Il is determined by applying an annual depreciation rate, according to the number of normal operation years, to the input value of the tangible fixed assets. This calculation method, although it does not consider the influence of obsolescence, is most frequently used by businesses and, moreover, it is the grounds of determination of the other two depreciation means. It is actually the only way to fully recover the assets' value and it is used for tangible fixed assets such as buildings; for the other categories of tangible fixed assets it becomes optional. As for technological equipment (machinery, equipment and facilities), appliances, computers and their peripheral devices, one may chose any of the three depreciation methods (straight-line, declining or accelerated).

# STUDIA UNIVERSITATIS

### Revistă științifică a Universității de Stat din Moldova, 2007, nr.8

**Declining depreciation** relies on a faster recovery of the tangible fixed assets' value during the first years of operation since their commissioning (between 12 and 24 months), but it applies only with the approval of the Managing Board of that entity. Therefore, the straight-line depreciation rates are multiplied by one of the following coefficients, depending on the operation duration of the tangible assets, namely:

- a) 1.5 if the normal operation duration of the tangible fixed assets is between 2 and 5 years;
- b) 2 if the normal operation duration is between 5 and 10 years, inclusive;
- c) 2.5 if the normal operation duration is higher than 10 years.
- We should mention that this method of depreciation can actually be applied in practice in two ways:
- 1) declining depreciation without obsolescence (AD1); 2) declining depreciation with obsolescence (AD2).

Accelerated depreciation is a distinct recovery method of the value of the depreciated tangible fixed assets by means of which the influence of obsolescence is avoided. Its actual putting into practice in the business life of an entity consists of the inclusion in the operation expenditures of the first year of operation of a depreciation rate of up to 50% of the input value. In the following financial year, straight-line depreciation applies by dividing the residual value by the number of remaining years. This depreciation calculation method must be approved by the General Public Finance County Directorate upon the request of the Managing Board of the business entity.

In addition to the decrease of the influence of obsolescence and to the recovery, in a shorter period of time, of a higher amount of the input value of the tangible fixed assets, this depreciation method also has a taxation advantage, namely the postponing of the payment of the income tax (although depreciation expenditure initially increases, it decreases subsequently).

### **References:**

- Accountancy Regulations consistent with the European Directives in effect as of January 1st, 2006 (Decree of the Ministry of Public Finances no. 1752/2005, on the approval of the Accountancy Regulations compliant with the 4<sup>th</sup> and 7<sup>th</sup> Directives of the European Economic Communities). - Iaşi: Sedcom Libris, 2006, p.39.
- 2. Munteanu V.A., Sabo-Bucur M., Irimia M., Butnariu A. Economics. Iași: Sedcom Libris, 2005.
- 3. Pântea Ia. Romanian Financial Accountancy consistent with the European Directives. Deva: Intelcredo, 2006.
- 4. Staicu C. (coord.). Romanian Financial Accountancy consistent with the European Directives. Vol.I. Craiova: Universitaria, 2006.

Prezentat la 27.09.2007