

# Topic 10: Financing of long-term assets

1. General characteristic of long-term assets.
2. Characteristics and classification of fixed assets.
3. Types of depreciation and amortization of fixed assets.  
Evaluation of fixed assets
4. Amortisation methods of long-term assets.
5. Financing sources of long-term assets.
7. Indicators of technical conditions, movement and efficiency of fixed assets use.

# Didactic purposes:

- *Definition of long-term assets.*
- *Classification of long-term assets.*
- *Classification of fixed assets.*
- *Definition of "amortisation" (depreciation).*
- *Comparison of amortisation (depreciation) methods.*
- *Comparison of financing sources of long-term assets.*
- *Calculation of indicators of technical conditions, movement and efficiency of fixed assets use.*



# Keywords:

- *long-term assets, fixed assets, intangible assets, long-term financial assets, physical wear, an obsolescence, initial cost, balance cost, straight-line method, production method, declining balance method, sum-of-the-years'-digits method, operative leasing, financial leasing, capital intensity.*



# 1. General characteristics of long-term assets.

- *CFA BOOK 3 P. 34.C*

## **Classification of long-term assets:**

### *1) According to functional types:*

- Fixed assets,
- Intangible assets,
- Incomplete material assets (incomplete construction and the equipment for installation),
- Long-term financial assets (these are all acquired financial instruments, whose term use is more than a year: long-term investments (shares, bonds, loans for other enterprises), long-term receivables: for rent, for the added percentage).

### *2) According to service of certain activities:*

- long-term assets maintaining operating activities,
- long-term assets maintaining investment and financial enterprise activity.





- 3) *According to type of possession:*

- • own,
- • rented.



- 4) *According to use:*


- • used long-term assets which take direct part in the enterprise operating, investment and financial activities
- • not used in financial and economic activity.



## 2. Characteristics and classification of fixed assets.

- Fixed assets are the most significant part of long-term assets which represents a set of the material values used in permanently natural form during the long period of time (more than one year), transferring the cost in parts for cost of finished goods in process of the amortisation whose cost exceeds the limit established by the legislation (6000 lei).



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- According to actual classification, the structure of fixed assets includes objects of productive and non-productive target.
  - Productive fixed assets are different according to their structure and include the active and passive means of labour which carry out various functions in production.



- **According to property fixed assets are subdivided into:**

- • own,
- • rented.

- **According to natural characteristics fixed assets are subdivided into:**

- - buildings,
- - constructions,
- - transfer devices (electricity network, pipeline),
- - cars and equipment,
- - vehicles,
- - tools of all types (more than a year and 6000 lei limit),
- - production equipment.



### 3. Types of depreciation and amortization of fixed assets. Evaluation of fixed assets

- Physical wear - loss of initial qualities under the influence of operational factors and environment factors.
- The amortization - is connected with consecutive backlog of earlier created fixed assets from a modern technological level.




- **There are 2 types of amortization:**

- • recoverable amortization – FA can be repaired,
- • unrecoverable - repair is impossible.

- **There are the following types of fixed assets evaluation:**

- 1) *Initial cost* - acquisition or creation of fixed assets.
- 2) *The overestimated cost.*
- 3) *The corrected cost* - after the capital investment in assets.
- 4) *The **worn-out** cost:*
- 5) *Residual cost* – the net sum which the enterprise plans to receive after leaving of material asset.
- 6) *Balance cost (current):*
- 7) *Fair market value is the sum for which the object can be exchanged within commercial operation between the independent representatives.*



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- Amortisation is a part transfer of fixed assets cost for a product made with their help.
  - Amortisation is carried out for accumulation of money for the purpose of the subsequent restoration and reproduction of fixed assets.



# Amortisation can be characterised from three points:

- As process of cost transfer of fixed assets and creation of amortisation fund.
- As the fund representing target accumulation which develops of periodically made depreciation charges and is intended for updating the fixed assets.
- As the prime cost element, that is depreciation charges join the product cost and are carried out at its sale.



- Amortisation of fixed assets is defined and considered by all enterprises, despite the form of ownership, by all types of the fixed assets put in operation.
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- **From a view of wear charge fixed assets are classified into 5 categories:**
  - 1. 5 % - buildings, constructions, transfer devices,
  - 2. 8 % - vineyards,
  - 3. 10 % - vehicles,
  - 4. 20 % - cars and trucks,
  - 5. 30 % - the equipment of electronic industry.



# Wear for the following fixed assets is not charged:

- 1) for library stocks,
- 2) for art and museum values.
- 3) for land lots.
- 4) for productive and working cattle.
- 5) for the fixed assets being on preservation.



# Rules of amortisation charge:

- According to *Newly introduced* fixed assets charges begin from the first day of the next month if the object is introduced after the 15th.
- According to *the left* fixed assets amortisation is not charged from the first date of the month following after the month of leaving.
- According to *completely amortised* fixed assets amortisation stops from the first date of the month following after a month of their complete amortisation.
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- **For determination of cost of fixed assets for the end of the reporting period the following formula is used:**

$$S_f = S_s + S_i + S_{cor} - S_{dep}$$



## 4. Amortisation method of long-term assets.

- A linear method - depreciation charges are distributed regularly for the entire period of object operation.
- A production method (in proportion to volume of made production or the rendered services) - the sum of depreciation charges depends on volume of made production, and not on operation duration.
- Methods of the accelerated write-off:
- Cumulative (sums of numbers). This method summarizes the years of the period of object functioning. Next, for every year is calculated the factor, dividing the number of years till the end of object operation by the sum of numbers.
- The decreasing rest. When using this method the norm of amortisation can be increased no more than twice.
- **CFA**



# 6. Financing sources of long-term assets:

- 1. *Own financial resources* – authorised fund and capital means, the most part of which is aimed for acquisition of fixed assets; depreciation charges; retained income; assignments from insurance institutions.
- 2. *Debt funds* - bank credits, loans of creditors, bills, bonded loans.
- 3. *The obtained financial funds* - from shares sale;
- 4. *Allocations from the state budget* - only for the state enterprises.
- 5. *Foreign investments*.
- 6. *The money centralised by associations or enterprises* according to the established procedure.



## The choice of the corresponding option of financing depends on the following factors:


- If own resources for ensuring economic development of the enterprise in the forthcoming period is enough.
- • The cost of the long-term financial credit in comparison with the profit level, received from the operation of long-term assets.
- • The ratio of own and extra capital which does not exceed the critical level of financial risk.
- • Availability of the long-term financial credit for the enterprise.



**In the process of financing of long-term assets one of the most difficult task is the choice of the alternative option :**

- 1) Acquisition of these assets for property or their rent.
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- In modern conditions rent or leasing operations can be carried out in the form of operative and financial leasing.
- Operative leasing is the economic operation providing transfer to the tenant the right to use the fixed assets that belong to the lessor, for the term which does not exceed their complete amortisation and with their obligatory return to the owner after the end of validity period of the leasing agreement. The fixed assets transferred in operative leasing remain on the balance of the lessor.



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- Financial leasing is the economic operation representing, by request of the tenant, the acquisition of the main means by the lessor with their further transfer to use by the tenant for the term of its complete amortisation and obligatory subsequent transfer of the property right for this main means to the tenant.



## 7. Indicators of the technical condition, movement and efficiency of the fixed assets use.

- *1. The indicators that define the technical condition of fixed assets:*
- The amortization factor - shows the degree of deterioration of fixed assets at the beginning and the end of the year and it is determined by a formula:
- $Af = A/Si$
- The lower the amortization factor, the better condition is for the fixed assets. The reduction of this factor means that there was an updating of fixed assets.
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# Factor of the validity:

$$F_v = 1 - \underline{\underline{A_f}}$$



## 2. *The indicators that define the movement of fixed assets:*

- The factor of leaving - shows which part of fixed assets has left within the reporting period, and it is defined by the relation of cost of the left fixed assets to their cost for the beginning of the reporting period.

$$Fl = Sd/Si$$



# The factor of updating

- - shows in what measure fixed assets have been updated within the reporting period, and it is defined by the relation of cost of the fixed assets placed in operation to their cost for the end of period.

$$F1 = S_i/S_f$$



### 3. *The indicators that define the efficiency of use of fixed assets:*

- capital productivity - characterises the correlation of the realisation of production volume or the production volume for 1 lei of the production fixed assets.

$$C_p = \text{Income} / S_{fa}$$

- The higher capital productivity, the higher is the technical equipment of the enterprise. The indicator of capital productivity can be determined either by the relation to all cost of fixed assets or to cost of their active part, which allows to analyze the efficiency of use of the most mobile part of the fixed assets.



- The capital intensity - characterises the average cost of fixed assets which is the share of 1 lei production realisation (return of capital productivity ).

$$C_i = S_{fa} / \text{Income}$$



- The capital-labor ratio - reflects the degree of guarantee of fixed assets for workers.

$$CLR = Sfa/Nw$$



- Profitability of fixed assets - reflects the profit size of fixed assets for 1 lei.

$$R = \text{EBIT} / \text{Smf} * 100\%$$

- The high indicator of profitability of fixed assets is caused by high profitability of production and the high capital productivity .