

## ASSESSMENTS CONCERNING THE USE OF ACCOUNTING AND FISCAL INFORMATION FOR THE SUBSTANTIATION OF INVESTMENT DECISIONS

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**Abstract:** Any business entity is based on labour, nature, capital and entrepreneurial ability in order to achieve the proposed objectives. The vast majority of the company assets are usually consumed over a longer or shorter period of time, passing on their value to manufactured/traded goods, services provided or works performed. The dynamic environment in which companies carry out their activity and the continuous desire to develop/expand with the purpose of increasing their economic performance/minimize risks, determine them to identify and select new investment opportunities. The article focuses on emphasizing the role and use of the accounting information in substantiating direct investment decisions.

**Keywords:** Direct investment, Financing, Rate of return, Accounting information, Budgeting capital expenditure, Depreciation.

**JEL Classification Codes:** M41, G31.

### 1. INTRODUCTION

“The object of accounting is constituted by everything that, in the opinion of the merchant, belongs to him on sums, as well as all large and small businesses, in the order in which they took place”- this was how the primary objective of accounting was stated in 1494, by Luca Paciolo, in his work of reference named “Suma de aritmetica, geometria proportioni et proportionalita” (English translation: *The Collected Knowledge of Arithmetic, Geometry, Proportions and Proportionality*), a work that reserves a special chapter to the “Double entry”. Similarly to all sciences and arts, accounting has evolved, and consequently, from the simple objective mentioned above, it is now required to provide qualitative information about the financial position, financial performance and cash flows of an entity, which are useful to a wide range of users in substantiating their decisions. In addition to financial accounting, (managerial) management accounting leads to the accomplishment of certain additional objectives for the internal users of the entity such as, for example, the calculation of costs on products/works/services, the provision of information underlying the budgeting and control of the operating activity, information necessary in order to perform the financial analyzes used for the substantiation of the managerial decisions related to the management of the internal activity and other information required due to the achievement of an efficient management.

Consequently, we could make the observation that the accounting information is essential for the operation and performance of companies but also for the minimization of the risks they might face. In practice, the budgeting of capital expenditures is usually done within a separate department, “Investments”, in which economists specializing in finance collaborate with those in the Accounting Department, analysing the opportunity and selecting investment projects meant



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to increase the value of the entity. Within smaller companies, decisions on direct investment are the responsibility of managers, however, even in such case, the provision of information underlying the budgeting and control of the operating activity is largely the responsibility of accounting. Regardless of the department that achieves this goal, the application of different methods of budgeting capital expenditures requires a series of accounting information whose relevance will be emphasized hereinbelow.

## 2. MATERIALS AND METHODS

As shown in the specialized materials concerning the research methodology (Andone I., Georgescu I., Toma C., 2011) accounting, as a major field of scientific and practical concerns, deals with the preparation, interpretation and use of financial information and of other information essential in the management and assessment of the activity of organizations. It includes the study of methods of data processing and information reporting, but also many other conceptual aspects, measuring assets and reporting the effects of inflation on the income and the financial status of organizations. Following the analysis of the substantiation of the results of the scientific research (new constructions - sets of new concepts, methods, models, better instantiations or theories) we consider that our contribution consists in identifying and assessing the relevance of the accounting information in the case of capital expenditure budgeting methods (direct investments) and the creation of models representing relationships between financial-accounting concepts and those related to the budgeting of capital expenditures (the activity of selecting investment projects). Consequently, in our opinion, it is possible to create a model of interconnectedness and interconnection of the activity of selecting direct investment projects and the financial-accounting one that would contribute to the optimization of the information flows, streamlining the investment activity and thus increasing the value of the company.

We consider that our work falls into both the category of fundamental research and in that of the research of the existing practice in the field. This article is based on qualitative and quantitative research methods (field practice research, case study research, methods of examination and measurement of phenomena), and among the data sources, mention is being made of: the observation of phenomena, documents and texts, impressions and reactions of the researchers (authors).

## 3. TYPOLOGY OF INVESTMENT PROJECTS

In the economic theory as well as in the economic practice, the classification of investment projects can be done from several perspectives (Țilică E.V., Ciobanu R., 2019). For example, *depending on the category of assets in which the intention is to invest*, we can distinguish **direct investments**, which include the production capacity or the commercial capacity of an economic entity (purchase of equipment, land, research and development, etc.) **and financial investments**, consisting in the acquisition of financial assets (shares in another company, bonds, etc.), investments of available resources meant to create, over time, surplus value from the collection of dividends or interests.

*The purpose of the investment project* is another criterion according to which the investment projects can be differentiated:

- Investments for the replacement of existing equipment with the purpose of maintaining the production capacity;
- Investments for the replacement of existing equipment with the purpose of improving the manufacturing process;
- Investments meant to increase the production capacity;

- Investments with the purpose of penetrating new market segments;
- Investments required by the law, mandatory investments;
- Investments necessary for the activities related to the core one.

As appreciated by Stancu I. (Stancu I., 2007) the concept of investment is complex and defined from various points of view: technical, financial, accounting, managerial, and we can say that investment is a sustainable allocation of capital in the acquisition of physical (real) assets, and/or financial assets, in order to allow for the completion of profitable activities, higher than the normal rate of return, corresponding to the risks assumed. *The risk taken* by the person making the investment can classify them into investments that involve a **very low risk** such as investments made in order to replace completely worn equipment, investments that involve a **low risk**, such as investments made in order to modernize existing equipment in use, investments that involve a **higher risk**, such as investments meant for the development (expansion) of some sections, factories, new factories, etc., and investments that involve a **very high risk**, those strategic investments that are related to the creation of a subsidiary abroad, the assimilation of a new product or a new technology, the merger with another company, etc.

*The method of financing* investment projects can be classified into projects **financed from own funds** or **financed from attracted sources (from shareholders or borrowed** from various creditors, for example banking institutions, or following the issuance of bonds).

*Depending on the way of carrying out the investment projects* involving various restrictions in their completion, **competing projects** can be distinguished (the completion of a project implies the impossibility of completing another competing project - it supposes the selection of a project from several similar variants, leading to the same objective). **complementary projects** (the completion of a project necessarily involves the realization of the second one) and **independent projects** (the completion of one project allows for the completion of another project, but is not conditioned by it).

#### **4. ELEMENTS SPECIFIC TO A DIRECT INVESTMENT PROJECT - THE INFLUENCES OF ACCOUNTING AND FISCAL INFORMATION**

**The defining elements of an investment project** are essential for the evaluation/selection of projects and can be synthesized as follows:

- **The initial cost of the investment** ( $I_0$ ) –represents the amount of money necessary for the commissioning of the project (initial cash flow). This initial cost includes, in addition to the purchase price of the item constituting the object of the direct investment project, other amounts necessary for transportation, excavation, commissioning of equipment, the cost of training the employed staff, and any other expenses necessary at the beginning of the investment period, for the commissioning of the project;

In relation to the cash flow from this initial phase, this cash flow is also influenced by:

- The need for additional working capital, determined by the new investment (changes in the value of inventories, receivables and operating debts incurred by the new investment);

The initial investment, for example in a piece of equipment, is generally accompanied by an increase in the investments in the working capital. The incremental investment in the working capital on the occasion of the investment made for the replacement of the old equipment with a new one can be 15,000 c.m., represented by the difference between the working capital required for the operation of the new equipment (for example 40,000 c.m.) and the working capital required for the operation of the old equipment (25,000

c.m.). The additional investment in working capital of 15,000 c.u. is a cash outflow at the time of the investment ( $t_0$ ).

- The opportunity cost of the company's assets made available to the investment project - these are the additional assets required for the initiation of the project, which are owned by the company, and if the company had not owned them, it would have had to purchase them. The initial expense will increase with the replacement value of these assets (taking into account their degree of depreciation) even though, at the time of the investment, it does not involve a cash outflow, their residual value currently being an opportunity cost.
- Selling/decommissioning old assets that will no longer be necessary following the implementation of the new investment project - can generate incomes that will decrease the invested amount. If the incomes obtained from the sale of the assets exceed the related expenses, for example the unamortized value of the transferred equipment, which will be replaced, then the profit tax related to the transaction must be taken into account, which will decrease the initial positive cash flow generated by the transaction.

**Example:** An business entity operating in the field of furniture manufacturing intends to make an investment in a technological line for cutting chipboards and wood fibre boards at the dimensions specific to the manufacturing of each furniture product. The purchase price of the new equipment is 860,000 c.u..The cost of the transport inside the country is 750 c.u, the assembly costs is 300 c.u, the costs of specializing staff (required in order to commission the equipment) is 4,500 c.u. The investment is made to replace an old technological line that at the time of the investment can be sold on the market at the price of 380,000 c.u. The initial book value of the old technological line is 540,000 c.u. and has been depreciated by 30%. In order to operate, it needs a complementary equipment that the company has in its patrimony, its replacement value, at the moment of making the investment, being 4,600 c.u.

The initial cost of the investment project will be as follows:

$I_0 =$  The purchase price + the cost of transport + the assembly costs + costs for specializing staff + the opportunity cost of the company assets made available to the investment project – The cash flow generated by the sale of the old equipment which will be sold

$$I_0 = 860.000 \text{ c.u.} + 750 \text{ c.u.} + 300 \text{ c.u.} + 4.500 \text{ c.u.} + 4.600 \text{ c.u.} - 1.680^* \text{ c.u.} \\ = 868.470 \text{ c.u.}$$

\* The cash flow = Income from the sale of the asset – Expenses related to the generated by the sale of the old equipment which will be sold transferred assets (non-depreciated part) – Profit tax corresponding to the income from transferring the asset (we assume a share of 16%)

*Note:* The tax depending on the fiscal category, the entity can be included in the category of micro-enterprises and in this case the income generated from the transaction is taxed (for example the income from the sale of the asset  $\times$  1%)

$$= 380,000 \text{ c.u.} - 378,000 \text{ c.u.**} - (380,000 - 378,000) \times 16\% \\ = 2,000 \text{ c.u.} - 1,320 \text{ c.u.} = 1,680 \text{ c.u.}$$

** Expenses related to	=	Initial book value – Entered depreciation
the transferred assets	=	540,000 c.u. – 162,000 c.u.
(non-depreciated part)	=	378,000 c.u.

➤ *The lifespan of the project*, respectively the period in which the exploitation of the investment is desired and also the cash flows generated by it will be estimated, within the feasibility analysis of the project.

Usually, the legal depreciation period guides specialists in determining the lifespan of the project, especially if the direct investment is related to a piece of equipment. If the intention is to sell the asset that is the subject of the investment project after a certain period of use, the lifespan of the project will be limited to the actual period of use within the company (until the time of its sale). If the asset is not depreciable (such as land) the lifespan of the project can be considered equal to the number of years in which the cash flows generated from the operation fluctuates, in other words, from the moment of its commissioning until the income will stabilize (will be constant or will change at a perpetual annual growth rate).

In what depreciation is concerned, the following aspects are important:

**The accounting depreciation is the allocation of the depreciable value** of a fixed asset over its entire expected useful life, calculated based on a depreciation plan that takes into account the useful live and conditions of use of **tangible assets**. The useful life is either the period in which an asset is expected to be available for use by the entity, or the number of units manufactured or similar units that are expected to be obtained by the entity through the use of that asset.

**Tax depreciation** consists in **deducting from the fiscal point of view the expenses generated by the purchase/manufacturing of fixed assets** on the basis of a mechanism similar to accounting depreciation, but with certain **differences**, calculated according to the **normal operating periods** starting with the month following the one in which the tangible asset is put into operation. A distinction must be made between the duration of the business use (useful business life) and the normal duration of operation (legal duration). In Romania, **the normal operating durations are established on the basis of the Catalog concerning the classification and normal operating times of fixed assets**, within a range of values between a minimum and a maximum value. Consequently, in order to determine the fiscal depreciation, the fiscal regulations from each state are taken into account, in Romania being legislated by Law 227/2015 on the Fiscal Code.

*For example*, in the case of the technological line used for cutting chipboards and wood fibre boards at the specific dimensions of the manufacturing of each furniture product, for which the calculation of the initial cost of the investment was exemplified above, the initial book value is 861,050 c.u..

- **The accounting depreciation** is calculated using one of the depreciation methods mentioned in the applicable accounting regulations (for example, in the case of unlisted companies, according to the straight-line method, degressive, accelerated or calculated per unit of product or service). The depreciation method that is used should reflect how the future economic benefits of an asset are expected to be consumed by the entity. That period of business use, the period in which an asset is expected to be available in order to be used by the entity, will be taken into account.

We consider that the method chosen by the entity is the linear one, and the duration of business use will be 5 years.

The monthly depreciation will be as follows:  $861,050 \text{ c.u.}/5 \times 12 = 14,351 \text{ c.u.}$

In the case of the companies **that apply IFRS** (such as, for example, in the case of listed companies in Romania), the depreciable amount is represented by the cost of the asset, or another value that replaces the cost in the financial statements, **minus the residual value of the asset**. The residual value of an asset is the estimated value that could be currently obtained by a business entity from the disposal of an asset, after deducting the estimated costs associated with the disposal, if the asset already had the provided age and condition at the end of its useful life. Various depreciation methods can be used for the systematic allocation of the depreciable amount of an asset over its useful life. These methods include the **straight-line method, the degressive depreciation method, and the unit of production method of depreciation** (according to the International Accounting Standard - IAS16 Property, plant and equipment). Consequently, if the company is listed and applies IFRS, and the residual value is 150,000 c.u., if the intent is to apply the straight-line method over an estimated useful life of 5 years, the monthly depreciation will be as follows:

The monthly depreciation will be as follows:  $(861,050 \text{ c.u.} - 150,000 \text{ c.u.})/5 \times 12 = 11,851 \text{ c.u.}$

- **The fiscal depreciation is determined according to** the fiscal regulations in each country; in Romania, the Fiscal Code mentions that, in the case of technological equipment, respectively of machines, tools and work installations, as well as for computers and their peripheral equipment, the taxpayer can choose to use the straight-line, degressive or accelerated method of depreciation. The normal duration of operation according to the Catalog in relation to the classification and the normal durations of operation of fixed assets, for this type of fixed assets is between 8-12 years, and we assume that the duration chosen by the entity is 8 years. Consequently, the monthly tax depreciation will be:

The fiscal depreciation will be as follows:  $861,050 \text{ c.u.}/8 \times 12 = 8,969 \text{ c.u.}$

In the case of the application of IFRS in accounting, the differences resulting from the application of different methods/rules from the fiscal point of view compared to the accounting ones are treated by means of the standard IAS 12 *Income taxes*. In the case of unlisted companies (which in Romanian apply Order of the Minister of Public Finance no. 1.802/2014 for the approval of the Accounting Regulations related to the individual annual financial statements and the consolidated annual financial statements), it is necessary to disconnect the tax accounting. (Cernușca L., 2017). Entities falling within the scope of this order treat only accounting depreciation, while tax depreciation is calculated only off-balance sheet [in the case of corporate profit taxpayers, for the calculation of the fiscal (taxable) result, the accounting result (total income - total expenses) is added to the accounting depreciation, and the fiscal depreciation is deducted from it - in this relation, the influence of the other elements that are included in the calculation of the fiscal result is not presented].

- **The cash flows generated by the project:** are the cash flows estimated to be collected or paid each year as a result of operating the project.

It is considered that one of the biggest challenges in budgeting capital expenditures and especially in analyzing discounted cash flows is that of determining the relevant cash flows when an investment is selected. (Horngren C., Datar S., Foster G., 2006). The relevant cash flows represent differences in the expected future cash flows as a result of the investment (Horngren C., Datar S., Foster G., 2006). In the example above, the relevant cash flows are the differences expected to result in the future between continuing to use the old machine and the case where a new one is purchased.

In order to illustrate the relevant cash flows, we shall consider that the entity operating in the furniture production industry and who intends to invest in the new equipment is a profit tax payer (the profit tax rate is 16%). The savings achieved after operating the machine are 140,000 c.u. in the years 1-4 and 110,000 c.u. in year 5. The entity uses the straight-line method. It is considered that the effects of taxation appear in the same period as with the inflows and outflows of value flows. The company is listed and applies IFRS in accounting

Explanations	Old equipment	New equipment
Purchase price	-	861,050 c.u.
Book value	378,000 c.u.	-
Current residual value	380,000 c.u.	N/A
Final residual value after 5 years	0	0
Annual depreciation	75,600 c.u. (378,000 c.u./5)	172,210 c.u. (861,050 c.u./5)
Working capital required	25,000 c.u.	40,000 c.u.

The effect of the investment made by the business entity operating in the wood processing industry in the new equipment on the operating cash flow in year 1, minus the profit tax shall be as follows (processed using personal data, based on Horngren C., Datar S., Foster G., 2006)

**Table no. 1 The effects of the investment on the operating cash flow**

<b>Two methods based on the result account</b>		
E	Cost savings	140,000
A	Additional depreciation expenses =172,210 c.u.- 75,600 c.u.	96,610
PE	Increase in the operating profit=E-A	43,390
I	Profit tax =(PE×t) where t =the profit tax rate, i.e. 16%)	6,942
PN	Increase in the net profit =PE - I	36,448
<i>Method 1: E-I = 140,000- 6,942 = 133,058</i>		
<i>Method 2 : PN+A = 36,448 + 96,610 = 133,058</i>		
<b>The element-by-element method</b>		
<b>The effect on the operating cash flow</b>		
E	Cost savings	140,000
t×E	Cash outflows related to profit tax, at a profit tax rate of 16%	22,400
E-t×E=(1-t)×E	Operating cash flow after tax (excluding the depreciation effects)	117,600
The effect of depreciation		
A	Additional depreciation expenses	96,610
t×A	Profit tax savings due to additional depreciation expenses = 96,610 × 16%	15,458

$(1-t) \times E + t \times A =$ $E - (t \times E) + (t \times A)$	<i>Operating flow, minus the profit tax</i>	<i>133,058</i>
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From an accounting point of view, based on the fundamental items of the “Profit and loss account” the net cash flow (CF<sub>n</sub>) is determined as follows:

$$CF_n = \text{Gross operating profit} (1 - \text{profit tax rate}) + \text{Depreciation}$$

In the example above, the calculation can be done as follows:

$$CF_n = (140,000 - 96,610) \times (1 - 0.16) + 96,610 = 133,058 \text{ c.u.}$$

But what happens when tax regulations provide **facilities for new investments**?

In many countries, such as Romania, tax regulations provide certain facilities for new investments. For example, in Romania, the Fiscal Code provides (Law no. 227/2015 on the Fiscal Code, art. 20, 22):

**- Deductions for research and development expenses**

If an business entity carries out research and development activities, from the categories of applied research and/or technological development activities, relevant for the activity carried out by taxpayers, it benefits from the following fiscal incentives:

- ✓ The additional deduction from the calculation of the fiscal result, in a proportion of 50%, of the eligible expenses for these activities;
- ✓ The application of the accelerated depreciation method in the case of devices and equipment dedicated to the research and development activities.

*For example*, in year N, the company operating in the wood industry, records, within an investment project, which includes a research-development activity relevant for its activity, research expenses of 80,000 c.u. It can benefit from the tax facility by deducting 50% of the value of these expenses when it calculates the taxable profit. When the fiscal result is calculated, it will deduct, in the form of fiscal deductions  $80,000 \text{ c.u.} \times 50\% = 40,000 \text{ c.u.}$  If we take into account a profit tax rate of 16%, the entity will have:

*Profit tax savings* due to the deduction for research and development expenses =  $40,000 \times 16\% = 6,400 \text{ c.u.}$ , savings that should *be taken into account in determining the net cash flow from the year in which the deduction is calculated and applied.*

**- Tax exemption of the reinvested profit**

Profit tax payers can benefit from a tax exemption for the profit invested in:

- technological equipment (machines, equipment and work installations),
- electronic computers and peripheral equipment, household, control and billing machines and appliances,
- in software, as well as for the right to use software

made and/or purchased, including on the basis of financial leasing contracts, and put into operation, used for the purpose of carrying out the business activity, is exempt from tax.

The tangible assets for which the tax exemption applies are those provided in subgroup 2.1, respectively in class 2.2.9 of the Catalog on the classification and normal operating times of fixed assets, approved by Government decision.

For the depreciation of these assets, the taxpayer cannot choose to use the accelerated depreciation.



The invested profit represents the balance of the profit and loss account, respectively the gross accounting profit cumulated from the beginning of the year, obtained until the quarter or in the year of the commissioning of the assets. The cumulative gross accounting profit from the beginning of the year is the gross profit to which are added the income tax expenses, registered in the quarter of the commissioning of the respective technological equipment, without, however, taking into account the own or attracted sources of the assets concerned. The exemption shall be calculated quarterly or annually, as the case may be. The amount which represents the profit for which the profit tax exemption was made, minus the part related to the legal reserve, is distributed as a priority for the establishment of reserves, until the amount of accounting profit registered at the end of the financial year is reached (Popa AF, Păunescu M., Ciobanu R. , 2020).

**For example**, in year N, the company operating in the wood industry records an accounting profit of 4,200,000 c.u., the taxable profit being 5,150,000 c.u. In October, in year N, it acquires and puts into operation a technological equipment of 861,050 c.u. In order to determine the income tax exemption related to the reinvested profit, the following steps are followed:

**The calculation of profit tax corresponding to year N:**

Income tax N = 5,150,000 c.u.  $\times$  16% = 824,000 c.u.

**The calculation of the profit tax corresponding to the reinvested profit:**

The accounting (gross) profit covers the realized investments, and consequently, the exempted profit tax = 861,050 u.m  $\times$  16% = 137,768 c.u.

**The distribution to reserves of the profit for which the tax exemption was made, minus the part related to the legal reserve.**

We assume that the company distributes 20,000 c.u. from the accounting profit for the constitution of the legal reserve

Exempt profit which is distributed to reserves = 861,050 u.m - 20,000 c.u. = 841,050 p.m.

Following the analysis of the example detailed above, we can notice that, as a result of benefiting from this fiscal facility, *savings of 137,768 c.u. in profit tax were recorded, which savings should be taken into account in determining the net cash flow in the year in which the deduction is calculated and applied.*

- **The residual value (VR<sub>n</sub>)** - represents the cash flow determined by the operation of decommissioning the investment in year n. It is determined by the market value at which the investment can be sold (or the value at which its components can be sold on the market), and also by other residual items, for example the investment in net current assets, which can be recovered by being sold on the market (coordinator Dragotă V. 2006).

If it is considered that the project **will be sold at the end of its life**, after n years, its residual value will result from the cash flows generated by the sale of the project. At the same time, the net current assets that were necessary for the implementation of the project and that have no other use within the company together with the sale will be sold. If other expenses are required for the decommissioning of the project, for example for the restoration of the site they will also be taken into account.

In this case, the **accounting** can be a source indicating the different elements that are taken into account in the calculation of the residual value, after an analysis and forecast of the potential selling price of the redundant equipment/current assets, and the estimation of expenses, at the end of use:

$$VR_n = \text{Income from the sale of the asset} - (\text{Income from the sale of the asset} - \text{Expenditure on divested assets and non-depreciated share}) \times 16\% - \text{Other expenses that generate cash outflows} + \text{Receipts from current assets, which have become redundant}$$

If the investment was made in an asset with an indefinite period of use, for example in a land that will be exploited in the company in order to generate profits, its residual value will be determined by capitalization, dividing the income generated, stabilized (from the following year of the explicit forecast period) at a capitalization rate “c” that takes into account the rate of return in the respective business sector (“k”) and the perpetual annual growth rate of income “g” (if it is considered that the income will increase from one period to another with a perpetual annual rate).

$$VR_n = \text{Income generated, stabilized}/c = \text{Income generated, stabilized}/k-g$$

**For example**, if the investment was made in a land that is considered to generate, from year 6 of its use, a stabilized income of 60,000 c.u. and increases perpetually, annually, by 2%, at a profitability rate in the specific field of activity of the company that owns it, of 10% the value of the land will be:

$$VR_n = 60,000 \text{ c.u.} / (10\% - 2\%) = 60,000 \text{ c.u.} / 0,08 = 750,000 \text{ c.u.}$$

- **The discount rate (RCR-required rate of return or the cost of the invested capital)** - is the minimum acceptable annual rate of return on an investment or the return that an entity can expect from elsewhere for an investment with a comparable degree of risk. Certain methods of budgeting capital expenditures, based on which managers decide which investment projects will be selected, involve updating the amounts that are expected to be earned, at a discount rate that quantifies the investor's risk attitude in relation to the project in question. The business practice proves that the higher the risks associated with the project, the higher the rate of return required by investors. There are different techniques used for determining the discount rate of investment projects, which take into account different factors, namely the opportunity cost (for example, the risk-free rate of return, the interest rate on deposits, rate of return in the business sector, etc.), **the rate formed by adding to the risk-free rate some partial risk premiums and the weighted average cost of capital** (coordinator Dragotă V., 2006).

## 5. METHODS OF BUDGETING CAPITAL EXPENDITURE

Due to the fact that the themes concerning the methods of budgeting capital expenditures is particularly broad, our intention is to mention their typology and to issue some opinions on the influences of accounting information in the application of various methods.

It is estimated that the investment option involves selecting investment projects based on their profitability, comparing their cost with the amount of net cash flows from their operation. In the adoption of the investment decision, discount free option criteria are used, also called simple option criteria and option criteria based on the discount (coordinator Sichigea N. 2006).

Four criteria generally guide the evaluation of investment projects:

- The net present value (NPV) is calculated taking into account the immediate payment and the future discounted flows associated with the project; the project is acceptable if the NPV greater than 0.

- The internal rate of return (IRR) is the discount rate that equals the value of the investment and future discounted flows. If the IRR is higher than the expected rate of return on capital, the project is accepted.
- The profitability index (PI) is determined as the ratio between the discounted flows and the value of the investment. The project is acceptable if the IP is supraunitary.
- The duration of return on investment - DRI involves the gradual accumulation of discounted flows and the lower the DRI the easier the investment project will be accepted. This criterion reflects the number of years and months required for the full recovery of the initially invested capital (initial investment) from future cash flows.

The accounting information influences the determination of the indicators specific to all the mentioned criteria, but we consider that in the case of option criteria without discounting, also called simple option criteria, the intervention of investment specialists is not necessary, the accounting information base being quite relevant. In addition to the DRI criterion mentioned above, other simple option criteria are also used, for example:

- **The cost criterion** – is applicable to investment decisions aimed at replacing worned tangible assets that may or may not lead to an increase in production capacity.

The influence of accounting information in the calculation of indicators specific to this criterion is very high because it is determined based on accounting data the economy/exceeding production costs due to replacement, and in case of a cost saving determines the return on investment and compares with the return already made. entity. If the operating costs of the new equipment are lower than the operating costs of the old equipment, the investment is acceptable.

- **The criterion of the average rate of return (R)** - involves determining the average rate of return on the investment project and comparing it with other variants of the project, or with a given level, respectively the rate of return on fixed assets that is obtained in the company.

$$\mathbf{R = \frac{\text{Average annual gross operating profit or average net investment cash flow}}{\text{Investment value}} \times 100}$$

In the case of this indicator, we consider that the influence of accounting information in calculating the indicator specific to this criterion is very high because it is determined based on accounting data. If the average rate of return on the project is higher than the comparison level, the investment is accepted.

As appreciated by financial specialists (Stancu I., 2007), in theory as well as in practice, the best substantiated and robust selection criterion for efficient investment projects is that of the net present value = NPV, respectively the added value that new projects investment companies “promise” to bring it to the existing value of the company. Consequently, the selection of the best performing investment projects will be made in relation to maximizing the net present value. In addition to the NPV, the most efficient investment projects also have internal returns (IRRs) higher than the average money market rate, selected as a reference.

Hofstrand D. (2013) conducted an extensive study concerning the methods of budgeting capital expenditures and he answered the question “What method of budgeting capital should be used?” by concluding, following his analysis, that each has unique advantages and disadvantages, and companies often use them all. Each offers a different perspective on the capital investment decision.

## 6. CONCLUSIONS

The issue of capital investments is particularly complex and is a major concern of the management of each entity, constantly pursuing the objective of maximizing the value of the company, increasing the competitiveness of the company and minimizing risks. As mentioned in our paper, in the business practice, the budgeting of capital expenditures is usually done within a separate department, "Investments", in which economists specializing in the financial field collaborate with those in the Accounting department, analyze the opportunity and select investment projects meant to increase the value of the entity. Within smaller companies, the decisions on direct investment are the responsibility of managers, but even in this case the provision of information underlying the budgeting and control of operating activities is largely the responsibility of accounting. Regardless of the department that achieves this goal, the application of different methods of budgeting capital expenditures requires certain accounting information, depending on the method used.

The budgeting of capital expenditures involves making long-term planning decisions for investments in projects, being a tool of decision and control applied over a period of several years. Out of the six stages of capital expenditure budgeting (The identification stage, the search stage, The information collection stage, The selection stage, the financing stage, the implementation and control stage - stages identified in Horngren C., Datar S., Foster G., 2006), we consider that in stages 3-6 the collaboration with the accounting specialists is very close, from the beginning asking for answers to questions such as: Are there funds available to finance fixed assets? Otherwise, do economic and financial indicators allow attracting loans? Are there tax facilities for investments in fixed assets? Furthermore, as we have shown in the paper, it is essential to have a good knowledge of the indicators that refer especially to the result, costs, cash flows, etc. and how tax regulations influence their calculation.

Entities choose projects whose expected benefits outweigh the anticipated costs. Along with the conclusions that emerge from the calculations regarding different project selection criteria, the managers re-evaluate the conclusions reached, using their reasoning to take into account the non-financial factors.

## REFERENCES

1. Andone I., Georgescu I., Toma C., *Metodologia cercetării în contabilitate (Accounting Research Methodology)*, Tehnopress Publishing House, Iași, pp. 6, 2011
2. Dragotă V. (coordinator), *Abordări practice în finanțele firmei (Practical Approaches in the Company Finance)*, Irecson Publishing House, Bucharest, pp.264-265, 2006
3. Horngren C., Datar S., Foster G., *Contabilitatea costurilor – o abordare managerială (Cost Accounting – A Managerial Approach)*, ARC Publishing House, Chișinău, p.796, 2006
4. Popa A.F., Păunescu M., Ciobanu R., *Fiscalitate, ediția a III- a revizuită (Fiscality, 3<sup>rd</sup> edition, reviewed)*, CECCAR Publishing House, Bucharest pp.54-57, 2020
5. Sighiea N. (coordonator), *Gestiunea financiară a întreprinderii (Financial Management of the Company)*, Universitaria Publishing House, Craiova , pp. 77-88, 2006
6. Stancu I., *Finanțe-ediția a IV-a (Finance, 4<sup>th</sup> edition)*, Editura Economică Publishing House, Bucharest pp. 540-541, 552, 2007
7. Țilică E.V., Ciobanu R., *Finanțe și management financiar (Finance and Financial Management)*, CECCAR Publishing House, Bucharest, pp. 89-134, 2019

8. Cernușca L., *Amortizare contabilă versus amortizare fiscal (Accounting Depreciation versus Fiscal Depreciation)*, Revista Expertiza și Auditul afacerilor (*Business Expertise and Audit Magazine*), no. 15-16, 2017
9. Hofstrand D., *Capital budgeting basics*, <https://www.extension.iastate.edu/agdm/wholefarm/pdf/c5-240.pdf>
10. Order of the Minister of Public Finance no. 1826/2003 for the approval of some measures regarding the implementation of the organization and conduct of management accounting
11. Government Decision no. 2139/2004 for the approval of the Catalogue for classification and normal working lives of fixed assets
12. Order of the Minister of Public Finance no. 1.802/2014 for the approval of the Accounting Regulations concerning the annual individual financial statements and the consolidated financial statements
13. Law no. 227/2015 on the Fiscal Code
14. Order of the Minister of Public Finance no. 2.844/2016 for the approval of the accounting regulations compliant with the International Financial Reporting Standards (IFRS)