

# ANALYSIS OF THE PROFITABILITY RATIOS OF ROMANIAN COMPANIES LISTED ON BUCHAREST STOCK EXCHANGE: TRENDS AND PERSPECTIVES

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## ABSTRACT

*The actuality of the issue of the evaluation of corporate profitability acquires an increased relevance in the light of the economic context that describes this beginning of the 21st century, strongly marked by the globalization of the economic systems, by the intensification of the level of competition and by the increasing occurrence of the*  
*This study analyses the evolution of profitability of Romanian companies listed on Bucharest Stock Exchange in a period that was both characterised by economic growth, but also marked by the global pandemic, i.e. 2016-2020. Thus, the analysis comprises 35 companies listed on BSE, representing eight sectors of the Romanian economy, of the total 10 existing in the national capital market, i.e. Mining and quarrying, Manufacturing, Electricity, gas, steam and air conditioning supply, Constructions, Wholesale and retail trade, Transportation, Storage, Professional, scientific and technical activities. Therefore, half of the sectors to which the analysed companies belong to have not seen a dramatic profitability decrease in the timeframe under analysis. On the other hand, a visible drop took place in 2018 in the sectors of Electricity, gas, steam and air conditioning supply, Professional, scientific and technical activities and Constructions. By contrast to the first two sectors, in the constructions sector, profitability ratios are evolving increasingly negative over the next two years of study. Besides, the transportation represents the sector that has consistently registered relevant levels for all profitability ratios, providing the most favourable evolution.*

## INTRODUCTION

Economic activity, no matter the area of activity it takes place in, can be characterized depending on outputs, its effects and the fulfilment of targeted objectives. Profitability analysis of a company calls for information from the published financial statements, which, despite the differences between financial and accounting principles and practices, often provides clues to the past performance of the company, which may be relevant to the future. Even if profit maximization is no longer necessarily the essential aim of a company because of failure to take into account issues such as risk and cost of capital employed, though, as Gitman [9] also notes, owners, creditors and management pay close attention to boosting profits because of the great importance the market places on earnings.

The purpose of this paper is to empirically investigate the profitability evolution of Romanian companies listed on BSE by analysing the profitability ratios of 35 companies belonging to 8 sectors of activity that are representative for the national economy, during the timeframe 2016-2020. The study contributes to the literature by the large number of selected companies and of the activity sectors they represent as well as by the period taken into consideration, comprising the global pandemic year 2020.

## MATERIALS AND METHODS

The profitability of a company reflects the efficiency with which the company's capacity (its investments) is used, in order to achieve the results expected by capital providers and has as prerequisite the activity to be carried on in terms of profit. The importance of profitability analysis at enterprise level is recognized in the specialized literature. Thus, as noted by Friedlob and Schleifer [7] a company has to be profitable in the long run to be successful. According to Brigham, Gapenski and Ehrhardt [4], profitability is the net result of various policies and managerial decisions and profitability ratios represent the net operational result of the combined effects of liquidity, asset management and debt management. In one approach to IFRS interpretations made by Greuning, Scott and Terblanche [10] profitability indicators are an indication of how a company's profit margins are associated to sales, average capital and average equity capital. As we can see, the profitability of a company is best characterized by profitability ratios. Although profitability ratios used in assessing the economic and financial performance of companies are treated in a relatively uniform manner by specialized literature, the method of constructing them is significantly different. Thus, after following the economic and financial literature both Romanian and international, in the present paper are determined and analysed the profitability ratios as follows:

$$\text{Return on Assets (ROA)} = \frac{\text{EBIT}}{\text{Average Total Assets}}$$

$$\text{Return on Invested Capital (ROIC)} = \frac{\text{EBIT}(1 - \text{Tax Rate})}{\text{Average Invested Capital}}$$

$$\text{Return on Equity (ROE)} = \frac{\text{Net Income}}{\text{Average Equity}}$$

Using as denominator the average values (at the beginning and end of the year) of invested capital and assets owned by the company is a recommended practice [3] because they represent elements from the balance sheet, which is a "snapshot" at a point in time whereas the numerator is an element of the income statement, which covers a period of time.

$$\text{EBIT Margin} = \frac{\text{EBIT}}{\text{Sales}}$$

$$\text{Gross Profit Margin} = \frac{\text{Gross Profit}}{\text{Sales}}$$

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Sales}}$$

$$\text{Expense Coverage Ratio} = \frac{\text{Net Income}}{\text{Total Expenses}}$$

The Expense Coverage Ratio is widely covered in the Romanian specialized literature [1], [11], [6], [8] as a form of expressing the efficiency of resource consumption at the level of an enterprise.

## RESULTS AND DISCUSSIONS

In order to perform the study, a total of 35 Romanian companies listed on Bucharest Stock Exchange were selected, which emphasize profitability of 8 of the 10 sectors currently represented on the capital market in Romania.

The selected companies represent 43.2% of the total number of domestic companies listed on BSE and their capitalization constitutes 38.5% of the total market capitalization recorded in late February 2021. The companies belonging to each sector of activity, as well as their exchange symbols are presented in Table 1.

Table 1. Selected companies

No.	Sector	Company	Exchange symbol
1	Mining and quarrying	OMV Petrom	SNP
2		S.N.G.N Romgaz	SNG
3		Rompetrol Well Services	PTR
4		Dafora	DAFR
5	Manufacturing	Vrancart	VNC
6		Rompetrol Rafinare	RRC
7		Antibiotice	ATB
8		Biofarm	BIO
9		Zentiva	SCD
10		Artego	ARTE
11		Romcarbon	ROCE
12		Teraplast	TRP
13		Stirom	STIB
14		Alro	ALR
15		TMK Artrom	ART
16		Electromagnetica	ELMA
17		Electroarges	ELGS
18		Retrasib	RTRA
19		Mecanica Ceahlau	MECF
20		Altur	ALT
21		Compa	CMP
22		Aerostar	ARS
23	Turbomecanica	TBM	
24	Electricity, gas, steam and air conditioning supply	Amonil	AMO
25		C.N.T.E.E Transelectrica	TEL
26		S.N.Nuclearelectrica	SNN
27	Constructions	Impact	IMP
28		Condmag	COMI
29	Wholesale and retail trade	Alumil	ALU
30		Ropharma	RPH
31	Transportation	Conpet	COTE
32		S.N.T.G.N.Transgaz	TGN
33	Storage	Oil Terminal	OIL
34		Socep	SOCP
35	Professional, scientific and technical activities	Electrica	EL

Source: own elaboration based on Bucharest Stock Exchange dat

The evolution of average profitability ratios for each sector of activity are presented as follows.

Analysing the ROA trend, we see that the sectors recorded a discrepant evolution. Thus, in mining and quarrying ROA had an upward evolution in the first four years of analysis, from 8.6% in 2016 to 10.9% in 2019, its level falling to just 2.8% in 2020 due to the negative value of -35% registered in this year by company Dafora. In fact, Dafora is the only company in this industry who shows extremely low values of ROA over the entire analysed period of time, culminating with negative values in 2019 and 2020. At the same time, it should be mentioned that this company began recording losses from 2019, losses that have deepened the following year, so the other indicators of profitability as well will record negative values in this period, as we will see further on.

In the manufacturing industry, ROA shows a considerable increase in the second year of analysis, from 4.2% in 2016 to 7.2% in 2017, after which gradually reduces to 4.7% in 2020. The year 2017 is also the year in which a number of companies in this industry recorded the maximum ROA values of the timeframe, such as Electroarges<sup>1</sup>, Zentiva, Retrasib or Aerostar.

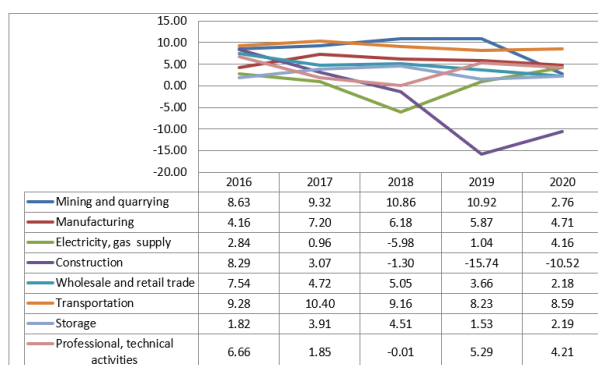


Fig. 1. The evolution of average ROA (%)

Source: own elaboration

In the manufacturing industry, ROA shows a considerable increase in the second year of analysis, from 4.2% in 2016 to 7.2% in 2017, after which gradually reduces to 4.7% in 2020. The year 2017 is also the year in which a number of companies in this industry recorded the maximum ROA values of the timeframe, such as Electroarges, Zentiva, Retrasib or Aerostar. On the other hand, we mention as negative ROA evolutions the companies Rompetrol Rafinare and Turbomecanica, which failed to record a positive EBIT in any of the analysed years, and therefore, the value of ROA is consistently negative.

In the sector of electricity, gas, steam and air conditioning supply it is noticed that ROA registers much lower values, oscillating from -6%<sup>2</sup> in 2018 to 4.2% in 2020, meanwhile in the constructions sector is observed a constantly descendant tendency of the ratio, from 8.3% in 2016 to -10.5% in 2020. Also, the wholesale and retail trade sector registers increasingly lower values of ROA, the ratio reaching in 2020 only 2.2%, a very low level considering that the sector profile does not require significant investments in assets.

<sup>1</sup> The ROA value of 29.78% registered by Electroarges in 2017 also represents the cross sector maximum of all companies in the manufacturing industry for the analyzed timeframe

<sup>2</sup> Due to the negative ROA of -22.9% registered by the company Amonil

In the transportation sector ROA values are at a relatively constant level of about 9% in the analyzed period, the favorable value being due to the subsector the two component companies belong to, namely, gas transportation.

The evolution of the ratio is not as satisfying in the storage sector where average ROA reaches its maximum value at 4.5% in 2018, in the last two years of analysis oscillating around the modest value of 2%. The professional, scientific and technical activities sector represented only by the company Electrica, shows an nonlinear trend of ROA over the five years analyzed, fluctuating from the 2016 peak of 6.7% to an almost null value in 2018, so that in 2020 to reach 4.2%.

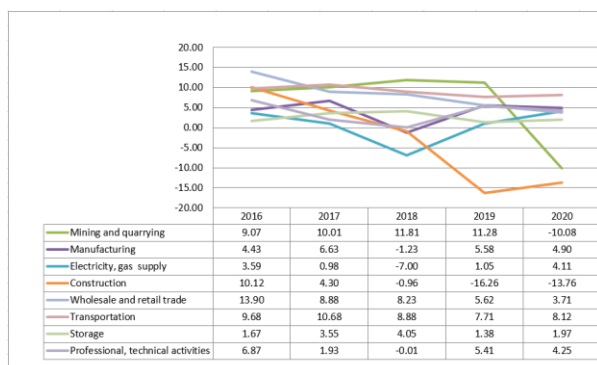


Fig. 2. The evolution of average ROIC (%)  
Source: own elaboration

Regarding the Return on Invested Capital, it registers (except for the cases when the average ratio has negative values) values higher than those of ROA, the followed trend being similar to it. Thus, in most sectors of the national economy, the spread between ROIC and ROA is relatively low, a sign that Romanian enterprises do not record very high non-financial liabilities. The exception is represented by the wholesale and retail trade sector, where the ROIC value is almost twice the value of ROA over the entire analyzed period of time.

Thus, we can state that this sector shows a favorable evolution in terms of this ratio because in this case the capital providers, i.e. shareholders and financial creditors are paid at a rate noticeably more advantageous compared to the performance of their investment. Favorable values of the average ROIC are also found in mining and quarrying and wholesale and retail trade sectors, but only in the first 3, namely 4 years under consideration, in the last year of analysis the ratio reducing its value considerably. A constant favorable trend is found in the transportation sector, where ROIC values of about 10% for the entire analyzed timeframe ensure sufficient remuneration to shareholders and creditors of companies in this sector, even though in the last 3 years of the study they do not exceed the return on the investment they made in the companies' assets. Another sector in which the remuneration ratio of capital providers is lower than the overall profitability of the company expressed through ROA is the storage one, this taking place steadily over the studied period. Also, it is noticeable the negative ROIC value recorded by the manufacturing sector in 2018, which was mainly due to extremely low value (-164.4%) registered by the company Rompetrol Rafinare.

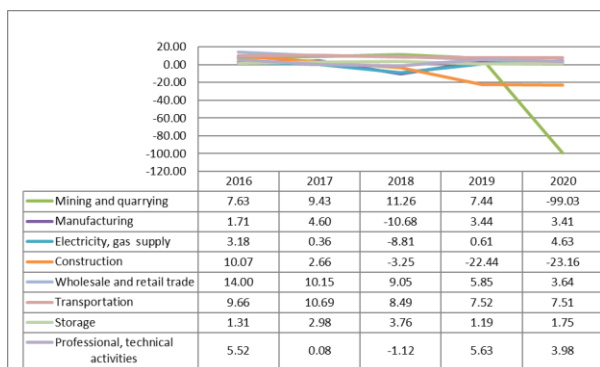


Fig. 3. The evolution of average ROE (%)  
Source: own elaboration

Analyzing the Return on Equity, we see that it recorded, in almost all sectors of activity, lower values than the Return on Invested Capital, a signal that businesses included in the study recorded a negative financial leverage, the profitability of invested capital failing to overcome the market interest rate, and thus, the value of shareholders' wealth is negatively influenced. The exception is represented also in this case by the wholesale and retail trade sector, where the average ROE, although very close to the ROIC one, it is still at a higher point, a sign that in this sector, the use of borrowed capital will contribute to the increase of Return on Equity as financial leverage will be positive and will return to shareholders.

However, most sectors<sup>3</sup> show a low difference between ROE and ROIC, the obtained economic profitability, although in some cases reduced, not being significantly absorbed by financial debts. In other words, the indebtedness level of surveyed companies is, on average, one well sized one, which does not influence significantly shareholder remuneration. As can be seen in Figure 3, most sectors recorded in the period 2016-2020, a relatively constant ROE<sup>4</sup>, except for significant decreases in the construction sector in 2019 and in mining and quarrying the following year.

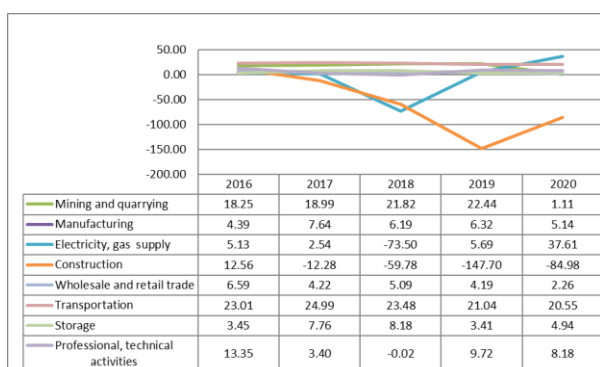


Fig. 4. The evolution of average EBIT Margin (%)  
Source: own elaboration

In terms of profit margins, their evolution is similar to that of operating returns. Thus, the only sectors that recorded satisfactory EBIT margins are transportation, with an average margin of 22% throughout the entire analyzed timeframe and mining and quarrying, for which the EBIT margin reaches an average of 20% in the first four years. In the other

<sup>3</sup> Except for Manufacturing and Constructions

<sup>4</sup> Characterized, in some cases, by extremely low ratios of shareholder remuneration; the case of Manufacturing, Electricity and gas supply and Storage

sectors of activity, the operating activity sales of companies have generated either an extremely low profit, shaped through less than 10% margins, or considerable losses, namely in the constructions sector the EBIT margin was negative in 4 of the 5 years of analysis. At the same time, requires mentioning the extremely high value, of 37.6%, recorded in 2020 in the electricity and gas supply sector, especially after which, in 2018, sales were conducted with a significant loss, of -73.5%. In fact, significant fluctuations of this sector, along with the negative trend registered in constructions are the only factors that alter the relatively satisfactory linear trend of Romanian companies on their operational activity efficiency expressed by this indicator.

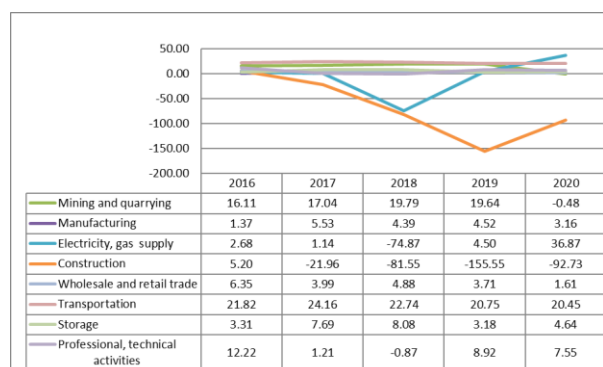


Fig.5. The evolution of average Gross Profit Margin (%)

Source: own elaboration

Analyzing the gross profit margin, we see that it does not differ significantly from the EBIT margin but in the sectors of manufacturing and constructions, where interest owed to creditors affects in a greater extent the gross profit remained, which will serve as remuneration for the state and shareholders. Thus, as an indicator of the degree of recovering operating expenses and the cost of borrowed capital, the gross profit margin records, similarly to the EBIT margin, favorable levels in the transportation sector and in mining and quarrying, except for the latter, the last year of analysis, when the margin of -95.8% recorded by company Dafora leads to a sector average of -0.5%. As shown in Figure 5, the efficiency with which the overall activity of Romanian companies listed on BSE is carried out, follows, in the five years of analysis, a similar trend to the efficiency of their operational activity.

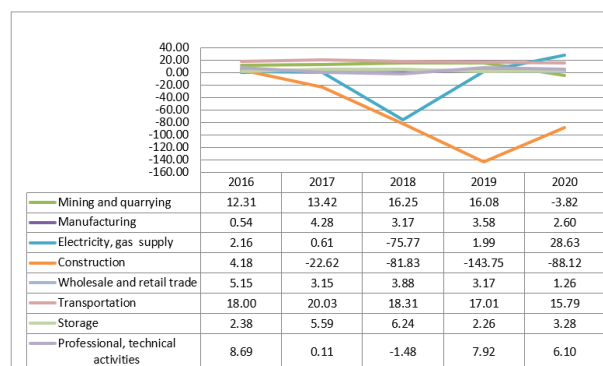


Fig.6. The evolution of average Net Profit Margin (%)

Source: own elaboration

Going forward with the net profit margin analysis, it is found that it is significantly lower than the gross profit margin in all analyzed sectors, thus, the remuneration paid to the

state through income tax is high. This fact is caused not only by the actual level of taxation, but especially by the fact that companies perform significant expenses which are not fiscally deductible, increasing thus the amount of due income tax and diminishing net profit for shareholders' remuneration. Similarly to the gross profit margin, significant values of over 10% are encountered in the transportation sector and partly in mining and quarrying, the last year of analysis being, also in terms of net profit margin, an inauspicious year for this sector.

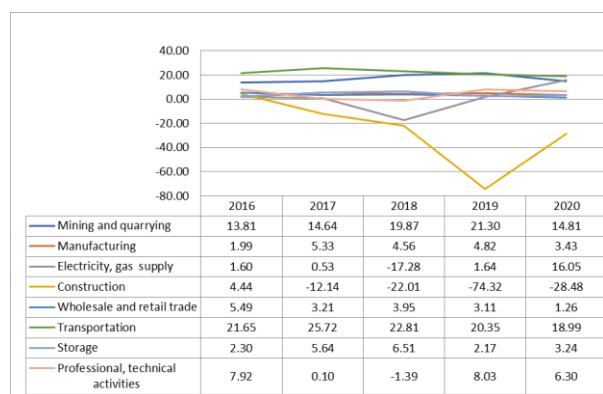


Fig.7. The evolution of average Expense Coverage Ratio (%)

Source: own elaboration

The Expense Coverage Ratio is different from the other profitability ratios by considering cost elements, allowing the expression of the efficiency degree resulting from these costs being drawn. Thus, we note that the only sector in which the Expense Coverage Ratio is consistently lower than the net profit margin is the electricity and gas supply, a sign that companies in this sector register expenses that exceed their revenues from sales.

In terms of resource consumption efficiency of the Romanian companies too, the companies in transportation and mining and quarrying sectors recorded the most satisfactory values, while the other areas of activity registered low levels of the ratio, of below 10% or quasi-constant negative, such as the construction sector.

## CONCLUSIONS

The present study performs a thorough analysis on the evolution of profitability of Romanian companies listed on Bucharest Stock Exchange during the period 2016-2020, timeframe partly marked by the effects of the global pandemic. To achieve this goal there have been selected 35 companies that are representative for their sectors of activity, namely, Mining and quarrying, Manufacturing, Electricity, gas, steam and air conditioning supply, Constructions, Wholesale and retail trade, Transportation, Storage and Professional, scientific and technical activities.

Therefore, after conducting the analysis it can be concluded that approximately half of the analyzed sectors have not seen a dramatic drop in profitability in the last period of time. However, significant decreases were observed from 2018 onwards in the sectors of electricity and gas supply sector, professional, scientific and technical activities and constructions, the first two recovering the lost profitability in the following year. Unlike these activity sectors, in the constructions area the diminishing profitability only gets deeper in 2019 and 2020. Actually, the evolution of this sector was the most



unfavorable one throughout the entire analyzed period of time regarding all profitability ratios.

Unlike this situation, the sector that constantly recorded high values of all profitability ratios, indicating the most favorable evolution is the transportation sector. In addition, another favorable evolution in all forms of profitability is observed in mining and quarrying between the years 2016-2019. In spite of this, in 2020 the domain average registered negative values, even close to -100% for ROE. This situation is due to the fact that even though 75% of enterprises belonging to this sector registered values of profitability indicators close to or even higher than the ones in the previous year, company Dafora has registered considerable losses this year, significantly influencing the sector average.

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