ANALYSIS OF THE CORRELATION BETWEEN FINANCIAL BALANCE AND PROFITABILITY INDICATORS IN COMPANIES IN THE METALLURGICAL INDUSTRY

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Abstract: Financial balance is a notion that involves knowing the financial situation of the economic agent and how the market works. Companies see a link between ensuring financial balance and their objectives such as: survival, ensuring a satisfactory return for those who brought the necessary resources for economic activity, development and diversification according to market opportunities, etc. The financial balance is that which involves the management of cash and profit flows, so that outstanding debts are covered by current receipts. The aim of the paper is to perform an analysis of the correlation between financial balance and profitability indicators for a sample of 10 companies in the metallurgical industry. The data necessary for the study were collected, both on the BVB website and on the websites of the analyzed companies, data included in the annual reports and in the administrators' reports, the period subject to analysis being between 2016-2019. The essential condition for the survival of the company is the maintenance of financial balance, and its assessment must take into account the concrete conditions of the occurrence of insolvency. The study shows that both changes in the return on assets and changes in the return on equity are influenced in very small proportions by the simulated changes in financial equilibrium indicators in the metallurgical industry.

JEL classification: G32, L11, L25, L21, L22

Key words: profitability, financial balance, liquidity, solvency, metallurgical industry.

1. INTRODUCTION

In this article, a study was conducted on the correlation between financial balance and profitability in companies in the metallurgical industry. Joan Robinson argues that "an economy can be in equilibrium for a short period of time and yet it can include incompatibilities that will soon take it out of that state of equilibrium." Just as economic theory states, equilibrium is temporary, difficult to maintain, fragile. But through the many effective tools and methods of economic-financial analysis, made available to economic entities, financial balance and financial performance can be achieved in the short and long term. The company's activity is only profitable when the return on its investments in assets exceeds the cost of the resources used to finance their assets. The current economic situation forces entrepreneurs to align with the requirements of competitiveness and profitability in order to survive in an increasingly selective market, in a word performance.

The aim of this study is to perform a detailed analysis on the correlation between equilibrium and profitability factors at the level of metallurgical insertion. In this paper, a correlation analysis is presented, but also a regression analysis between financial balance and profitability indicators.

2. CONCEPTS AND METHODOLOGIES

Anghelache and Anghel (2019) researched the main statistical indicators applied in economic studies. Regarding the financial balance, the Romanian scientific researchers MVAchim and SNBorlea claim that "in a general approach, the financial balance at the level of the financial position can be expressed by the equality or coincidence between the financial resources necessary to fulfill the assets and actions. establishment of these resources from own sources or attracted sources". Over time, the basic elements of the conceptual-methodological framework of economic-financial analysis have had an impressive evolution, starting with the industrial revolution and until now. Brand authors such as: Charles Babbage, Frideric Taylor, Henry Fayol, Frank and Lillien Gilbert, H.B.Maynard, Pierre Conso, Gerard Charreaux, Elie Cohen s.a. without excluding the representatives of the Romanian economic school, they contributed to the gradual "enrichment" of the patrimony of the economic financial analysis. French analyst D. M. Chorafas argues that economic analysis studies the overall economic policy of enterprises. The German analyst K. Fischer considers that the economic analysis deals with the research of the production and circulation phases within the reproduction. Analysts Y. Lecaillon, J.R. Hicks, J.M. Henderser, R. Gaffin argue that the object of economic and financial analysis includes: consumer demand analysis, producer supply analysis, demand-supply balance analysis, credit, overall balance, monopoly, welfare.

In economic theory, the idea that financial equilibrium is increasingly credited respected if the profitability of an economic agent compensates:

1. Long-term equilibrium, when permanent resources are compared with permanent uses and also when the "working capital" indicator is used to measure equilibrium;
2. Short-term equilibrium, when temporary resources are compared with temporary uses and also when the "working capital required" initiator is used to measure equilibrium;
3. The current balance, when cash is compared with the level of temporary bank loans thus, following the level of treasury.

Working capital is an indicator frequently used in performing the financial analysis of an enterprise to characterize the state of imbalance / equilibrium. This indicator expresses that surplus of permanent resources that exceed the value of fixed assets, serving to finance current assets.

Based on the financial balance sheet, the net working capital is calculated in two ways:

Working capital = permanent capital - fixed assets

or

Working capital = current assets - short-term debt

Based on the functional balance, it is calculated as follows:

Working capital = Stable resources - Stable needs

or

Working capital = (Cyclical needs + Treasury needs) - (Cyclical resources + Treasury resources)

The working capital requirement represents that surplus of needs remaining after covering the current assets from the current resources that must be covered from permanent resources. The indicator takes into account the short-term balance, thus presenting a situation of short-term financial needs compared to the short-term resources attracted.

It can be determined based on:

a) financial balance sheet

Working capital requirements = (Stocks + Receivables) - Short-term operating liabilities;

b) functional balance

Working capital requirements = Cyclical assets - Cyclical resources

The treasury is the general indicator of balance, being the image of short-term cash from the evolution of current receipts and payments. It is closely linked to the short-term financial operations carried out at company level.

Its level can be determined based on:

a) Financial balance sheet

Treasury = Cash - Current financial liabilities

b) Functional balance

Treasury = Asset Treasury - Liability Treasury

c) The fundamental equation of treasury

Treasury = Working capital - The necessary working capital

The main forms of financial balance:

- Stable financial balance

FR> 0; NFR> 0; T> 0 (FR> NFR).

- The classic financial balance

FR> 0; NFR> 0; T <0 (FR <NFR).

- Financial imbalance

FR <0; NFR> 0; T <0.

- Excess misplaced resources

FR> 0; NFR <0; T> 0.

- Risky financial balance

FR <0; NFR <0; T> 0.

- Critical financial situation

FR <0; NFR <0; T <0.

Profitability is that ability of the enterprise to realize the necessary profit both for dissolution and for reproduction as well as for the remuneration of capital. The main indicators of profitability / efficiency of companies are:

a) Return on assets (ROA)

b) Return on equity (ROE)

c) Return on investment (ROI)

However, the performance rates calculated on the basis of cash flows can also be taken into account, thus showing the importance of generating cash in the activity of the entity.

ROA is one of the main indicators of profitability of an entity that shows us the efficiency with which it uses its assets, in terms of profit. More specifically, it shows us how many lei in the form of profit a leu invested in assets brings us.

ROA = Net profit / Total assets

ROE is the most important indicator for measuring an entity's performance. It is calculated as the ratio between the company's net profit on the one hand and its own capital on the other. Equity representing the shareholders' contribution to the financing of the business. The most important thing for a business is to maximize the results felt by shareholders as a result of the investment made by them, and this is reflected in a high return on equity, ie a small investment of shareholders has been turned into a large profit.

ROE = Net Income / Equity

Return on investment (ROI) is a measure of the performance that is used to assess the efficiency of the investment or to compare the efficiency of different investments.

ROI = Net profit / Total investment cost

The analysis of the financial balance can be performed through the two concepts of the balance sheet, namely equity and financial, and profitability is reflected in the net result of the year giving rise to profit or loss.

3. CASE STUDY

In general, the main indicators of financial balance included in the analysis are: liquidity, solvency and the ratio between permanent capital and fixed assets, and in terms of profitability we used as indicators return on assets (ROA) and return on capital (ROE).

The questions from which this study starts are the following:

How is the profitability of companies influenced in accordance with the financial balance?

Is there a strong correlation between financial balance and profitability indicators?

The research hypotheses are:

H1 The profitability of companies is positively influenced by ensuring the state of financial equilibrium

H2 The profitability of companies is not influenced by ensuring the state of financial equilibrium

This paper begins by analyzing the indicators of financial balance and profitability at the level of the 10 companies in the metallurgical industry. Thus, we can observe the evolution of these indicators during 4 years of analysis (2016-2019) and their average valuation.

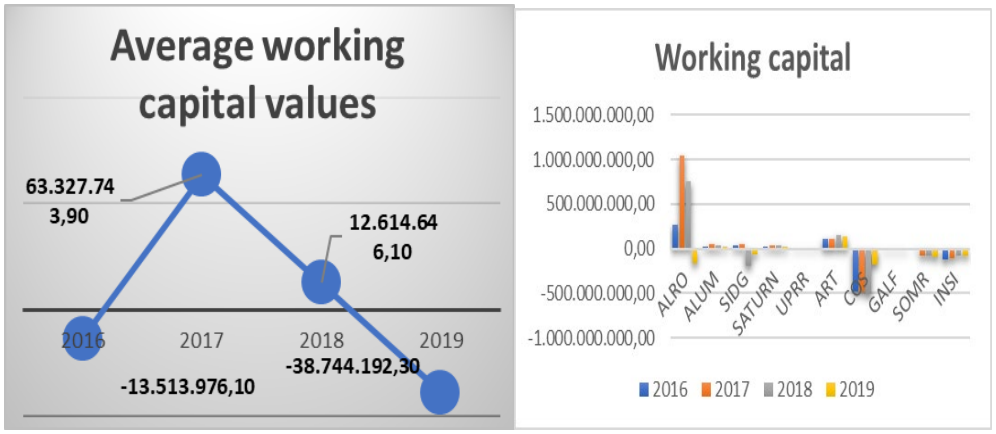

Figure 1: Working capital

Source: ,,Data processed by the author"

The working capital registers positive values in 2017 and 2018, and in 2016 and 2019 negative values. In 2017 ALRO registers the most significant working capital in the entire industry, this being felt among the average value, while in 2019 it has a negative working capital. The positive level is due to the increase in the level of permanent capital at a higher rate than the growth of fixed assets. The considerable increase in 2017 of the working capital within the company ALRO is due to the increase of medium and long term debts (330%). The negative level of FR is due to the company COS, which records an increase in fixed assets and a continuous decrease in permanent capital, due to losses.

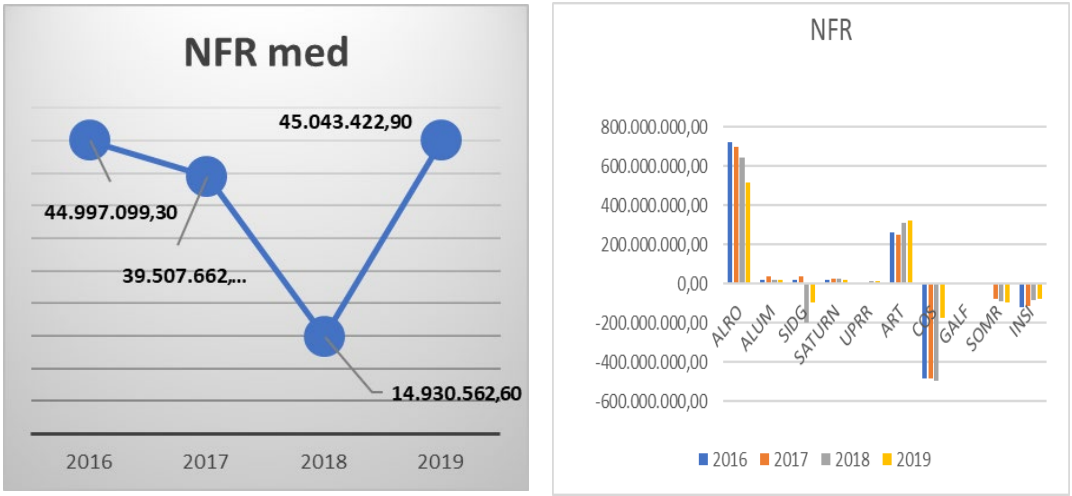

Figure 2 NFR

Source: ,,Data processed by the author"

The average need of the working capital registers positive values for the entire analyzed period, an aspect that is considered unfavorable. Every year, the level of working capital requirements has shown decreasing trends due to the increase in short-term operating debts. In the period 2016-2019, ALRO registers the most significant values of

the working capital need in the entire industry, this being also felt among the average value. At the opposite pole is COS, which records negative values for the entire period.

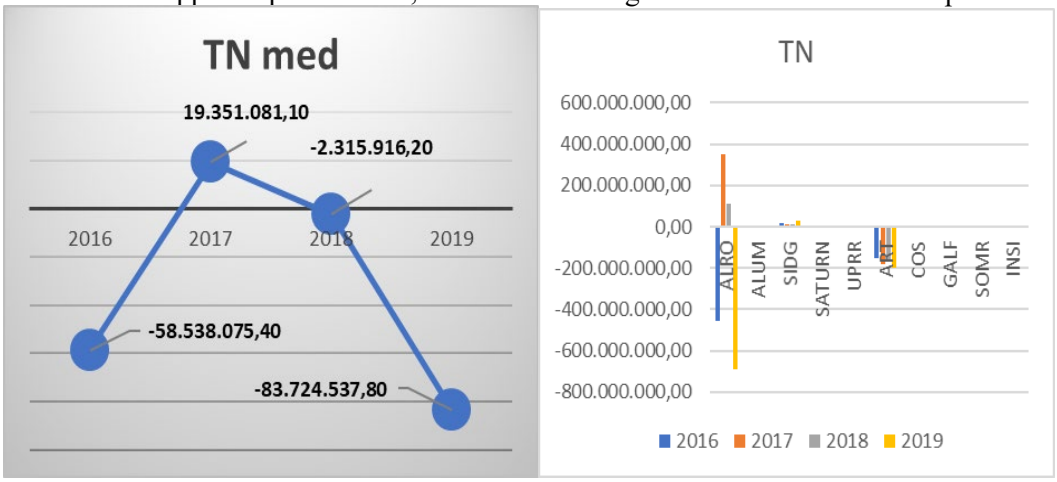

Figure 3: TN

Source: ,,Data processed by the author"

The average net treasury in the metallurgical industry registers positive values in 2017, and in 2016, 2018 and 2019 negative values. In 2017 ALRO records the most significant value of net cash in the entire industry, this being felt among the average value, while in 2016 and 2019 it has a negative net cash. One step after ALRO is ART, which records negative values for the entire analyzed period.

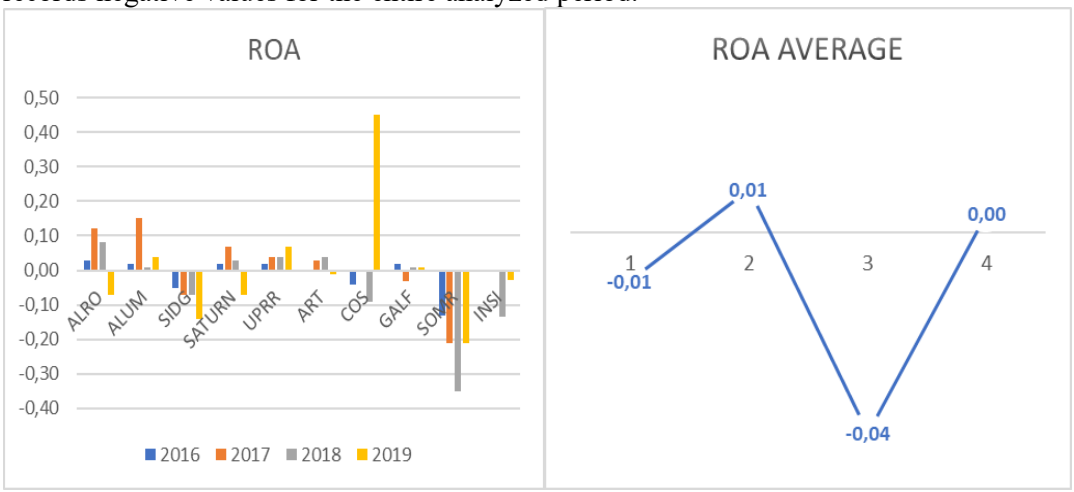

Figure 4: ROA

Source: ,,Data processed by the author"

The average value recorded by this indicator is well below the 5% threshold. As can be seen in the first year of analysis and in year 4 it records negative values, and in the second year it registers a value of 1%, so it can be stated that the activity carried out within the companies in the metallurgical industry was not efficient from the point of view. of the capitalization of own capitals. In the metallurgical industry in the first year of analysis (2016) of the 10 companies none exceeds the minimum threshold of 5%, in year 2 Alro,

Alum and Saturn exceed this threshold, Alum registering the highest value of 15%, in 3 only Alro still exceeds this threshold with the value of 8%, and in year 4 UPRR and COS exceed this threshold, even COS has a spectacular value of 45%.

Regarding the average ROE in the metallurgical industry, we can see that it has a downward trend over the analyzed period (2016-2019). It can also be seen that in the first year of analysis (2016) the highest ROE value has a COS of 3%, but this value is positive against the background of both the negative net result and equity. In year 2 we find the highest value in this case at SOMR of 171% but this time too the positive value is also due to the indicators that have negative values. In the 3rd year of analysis, SOMR also registers the most significant value of 69%, while INSI has a value of -100%, and in the last year UPR has a value of 13%, while SIDG has a value of -86 %.

In conclusion, while the ROE decreases during the analysis period the profit due to the owners for the investments made, also decreases. Also against the background of these decreases, the possibilities of receiving dividends from the end of each financial year will decrease.

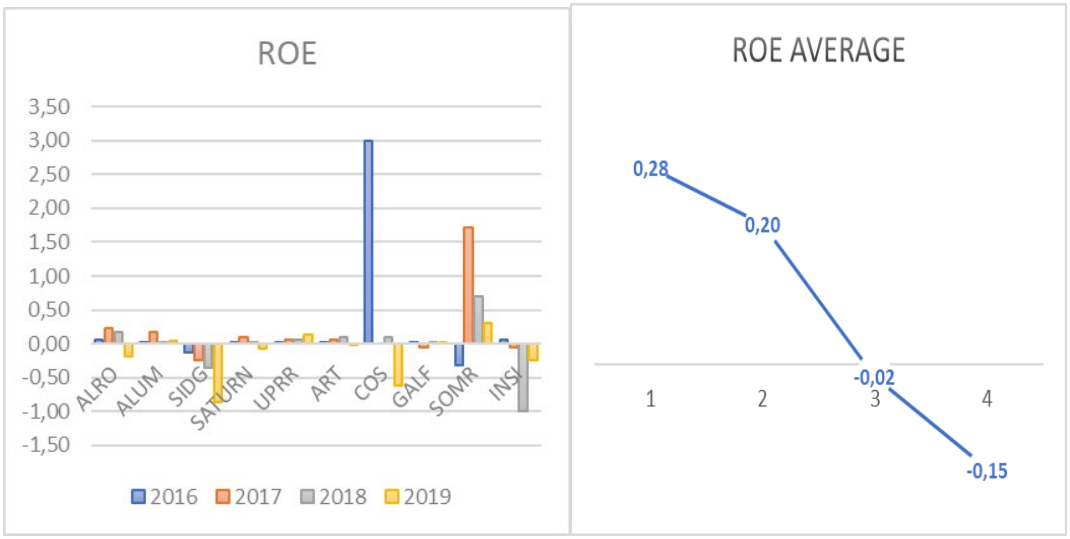

Figure 5: ROE

Source: ,,Data processed by the author"

The present study comprises two multiple regressions. The first multiple regression performed is between the ROA as a resultant variable and the financial equilibrium indicators (liquidity, solvency and the ratio between permanent capital and fixed assets) as independent variables. The second multiple regression analyzed is between ROE as the resultant variable and the financial equilibrium indicators (liquidity, solvency and the ratio between permanent capital and fixed assets) as independent variables.

Following the first regression we obtained a coefficient of determination (R ^ 2) with a value of 0.15, which means that the variations of ROA are influenced in proportion of 15% by the simultaneous variations of the equilibrium indicators, the remaining 85% are due to the residual variable and a correlation coefficient (r) of 0.39, ie the correlation coefficient has the value 0.39, it results that it tends to 0 which means that there is no linear link between the ROA and the analyzed equilibrium indicators.

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	cap perm/ (x3), Solv (x2), Lichid (x1)[b]	.	Enter
2	.	cap perm/ (x3)	Backward (criterion: Probability of F-to-remove >= .100).
3	.	Solv (x2)	Backward (criterion: Probability of F-to-remove >= .100).

Figure 6: „ Variables entered/ removed"

Source: ,,Data processed by the author"

We performed multiple regression in SPSS (see figure 6), and it generates a summary of the models it tried. The first model includes all independent variables, and they are eliminated according to their relevance. We notice that the first eliminated is the ratio between permanent capital and fixed assets (x3) and solvency is followed (x2), the only variable that is not eliminated is liquidity (x1).

The ANOVA table shows us if the model is relevant, ie if the parameters of the regression equation differ significantly from 0. As can be seen in the table in the first two models the sig takes values such as 0.11 and 0.061 both exceeding the limit of 0.05, which means that they are not statistically relevant while model 3 has a sig of 0.04 less than 0.05, so the last model is statistically relevant.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.085	3	.028	2.153	.111[b]
	Residual	.476	36	.013		
	Total	.562	39			
2	Regression	.079	2	.039	3.010	.061[c]
	Residual	.483	37	.013		
	Total	.562	39			
3	Regression	.059	1	.059	4.499	.040[d]
	Residual	.502	38	.013		
	Total	.562	39			

Figure 7: „ ANOVA SPSS"

Source: ,,Data processed by the author"

In the Coefficients table we see that the estimated value for the constant in the first model is -0.035 and a sig of 0.235, in the second model it has a value of -0.38 and a sig of 0.192, and in the third model it has a value of -0.051 and a sig of 0.063. As we can see this constant has a sig greater than 0.05 in all three models, which means that it is not relevant for this model. Moreover, the confidence interval in which it falls in the first model is -0.093 and 0.024, in the second it is -

0.095 and 0.020, and in the third model it is -0.104 and 0.003 where it comes out that it contains 0 so statistically this constant is not significant.

If the constant, according to the coefficient table, shows that it is not relevant for any model, the liquidity is relevant in the third model because it has a sig of 0.040, instead it is not significant because the confidence interval includes 0.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.035	.029		-1.208	.235	-.093	.024
	Lichid (x1)	.000	.000	.635	1.547	.131	.000	.001
	Solv (x2)	.000	.000	-.485	-1.268	.213	-.001	.000
	cap perm/ (x3)	.015	.021	.175	.720	.476	-.028	.059
2	(Constant)	-.038	.028		-1.329	.192	-.095	.020
	Lichid (x1)	.001	.000	.745	1.968	.057	.000	.001
	Solv (x2)	.000	.000	-.458	-1.211	.234	-.001	.000
3	(Constant)	-.051	.026		-1.919	.063	-.104	.003
	Lichid (x1)	.000	.000	.325	2.121	.040	.000	.000

Figure 8: Coefficients

Source: ,,Data processed by the author"

In the table of excluded variables we find the excluded variables. Excluding one variable from the regression model means that it is not actually independent of the others and has a strong correlation.

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics Tolerance
2	cap perm/ (x3)	.175[b]	.720	.476	.119	.401
3	cap perm/ (x3)	.144[c]	.593	.556	.097	.405
	Solv (x2)	-.458[c]	-1.211	.234	-.195	.162

Figure 9:,, Excluded Variables"

Source: ,,Data processed by the author"

In order to observe the correlation between the variables, we continued the analysis by performing a correlation table in which we observe that in terms of pearson's correlation we have a very high correlation between liquidity and solvency, followed by liquidity and the ratio between permanent capital and fixed assets. means that if liquidity remains in the model the other variables will be excluded. Also, the strong correlation between liquidity and the ratio between permanent capital and fixed assets results in the fact that the remaining solvency variable in the model leads to the exclusion of the other two. If the ratio between permanent capital and fixed assets remains in the model, the other variables, namely solvency and liquidity, will be excluded, which leads us to the conclusion that there is a strong correlation between them.

Correlations

		Lichid (x1)	Solv (x2)	cap perm/ (x3)
Lichid (x1)	Pearson Correlation	1	.915**	.771**
	Sig. (2-tailed)		<.001	<.001
	N	40	40	40
Solv (x2)	Pearson Correlation	.915**	1	.731**
	Sig. (2-tailed)	<.001		<.001
	N	40	40	40
cap perm/ (x3)	Pearson Correlation	.771**	.731**	1
	Sig. (2-tailed)	<.001	<.001	
	N	40	40	40

Figure 10 „Correlations"

Source: ,,Data processed by the author"

In order to verify the correctness of the model, we performed the following tests:

1. Multicollinearity, which checks if there is a connection between independent variables. In this case r square is higher compared to r square from the initial result which means that multicollinearity is present. The presence of multicollinearity is also a problem in this case.

2. Heteroscedasticity of errors, which checks whether the errors depend on independent variables. It is also desirable to meet the case of homoskedasticity, ie the case where the errors do not depend on the independent variables. We obtain an r square of 0.02 which means that heteroskedasticity is not present and we are in the optimal situation.

3. Autocorrelation of errors, which implies the existence of a non-zero covariate between the errors in the regression equation. In this case I used the Durbin Watson test and it turned out that the errors are not autocorrelated, because the result tends to 2 which is good.

4. Wrong specification of the regression model, where we obtained for r square much lower values compared to the initial r square. Which means that the multicollinearity test is incorrect, and the tests heteroskedasticity of errors and autocorrelation of errors are correct.

Performing the second regression we obtained a coefficient of determination (R ^ 2) with a value of 0.16, which means that the variations of ROE are influenced in proportion of 16% by the simultaneous variations of the equilibrium indicators, the remaining 84 % is due to the residual variable and a correlation coefficient (r) of 0.40, ie the correlation coefficient is 0.40, it results that it tends to 0 which means that there is no linear link between the ROE and the analyzed equilibrium indicators.

Following a multiple regression performed in SPSS, it generates a summary of the models it tested. The first model includes all independent variables, and they are eliminated according to their relevance. We notice that the first eliminated is solvency (x2) and is followed by liquidity (x1), the only variable that is not eliminated is the ratio between permanent capital and fixed assets (x3).

Variables Entered/Removed[a]

Model	Variables Entered	Variables Removed	Method
1	cap perm/ (x3), Solv (x2), Lichid (x1)[b]	.	Enter
2	.	Solv (x2)	Backward (criterion: Probability of F-to-remove >= .100).
3	.	Lichid (x1)	Backward (criterion: Probability of F-to-remove >= .100).

Figure 11 „ Variables entered/ Removed

Source: ,,Data processed by the author"

The ANOVA table shows us if the model is relevant, ie if the parameters of the regression equation differ significantly from 0. As can be seen in the table the first and last model have a sig with values of 0.095 and 0.054 both exceeding the limit of 0.05, which means that they are not statistically relevant while model two has a sig of 0.04 less than 0.05, so the last model is statistically relevant.

The table of coefficients shows how the value of the constant is 0.099, and the sig is 0.507, much higher compared to the limit of 0.05 which means that it is not relevant for this model. Moreover, the confidence interval in which it falls is -0,200 and 0.398, which shows that it contains 0 so statistically this constant is not significant.

The liquidity has a value of 0.002 and a sig of 0.259, so higher than the limit of 0.05, which means that it is not relevant for this model. Moreover, the confidence interval in which it falls is -0.001 and 0.005, which shows that it contains 0 so statistically this variable is not significant.

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.396	3	.799	2.290	.095[b]
	Residual	12.558	36	.349		
	Total	14.955	39			
2	Regression	2.381	2	1.191	3.504	.040[c]
	Residual	12.573	37	.340		
	Total	14.955	39			
3	Regression	1.415	1	1.415	3.971	.054[d]
	Residual	13.540	38	.356		
	Total	14.955	39			

Figure 12 „Anova Spss"

Source: ,,Data processed by the author"

In terms of solvency, it has a value of 0.000 and a sig of 0.835, much higher compared to the limit of 0.05 which means that it is not relevant for this model. Moreover,

the confidence interval in which it falls is -0,200 and 0.002, where it comes out that it contains 0 so statistically this variable is not significant.

The ratio between permanent capital and fixed assets has a value of -0,279 and a sig of 0.016, being the only variable that does not exceed the range of 0.05 which means that it is relevant for this model. Moreover, the confidence interval in which it falls is -0.503 and -0.056, which shows that the range does not contain 0 so statistically this variable is significant.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.099	.148		.670	.507	-.200	.398
	Lichid (x1)	.002	.001	.469	1.148	.259	-.001	.005
	Solv (x2)	.000	.001	-.080	-.209	.835	-.002	.002
	cap perm/ (x3)	-.279	.110	-.611	-2.532	.016	-.503	-.056
2	(Constant)	.087	.134		.647	.522	-.185	.359
	Lichid (x1)	.001	.001	.399	1.686	.100	.000	.003
	cap perm/ (x3)	-.282	.108	-.616	-2.599	.013	-.501	-.062
3	(Constant)	.210	.116		1.814	.078	-.024	.444
	cap perm/ (x3)	-.141	.071	-.308	-1.993	.054	-.284	.002

Figure 13 ,,Cofefficents"

Source: ,,Data processed by the author"

In the table of excluded variables we find the excluded variables. Excluding one variable from the regression model means that it is not actually independent of the others and has a strong correlation.

Excluded Variables[a]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics
						Tolerance
2	Solv (x2)	-.080[b]	-.209	.835	-.035	.161
3	Solv (x2)	.274[c]	1.218	.231	.196	.465
	Lichid (x1)	.399[c]	1.686	.100	.267	.405

Figure 14 ,,Excluded Variables"

Source: ,,Data processed by the author"

In order to observe the correlation between the variables, we continued the analysis by performing a correlation table in which we observe that in terms of pearson's correlation we have a very high correlation between liquidity and solvency, followed by liquidity and the ratio between permanent capital and fixed assets. means that if liquidity remains in the model the other variables will be excluded.

Correlations

		Lichid (x1)	Solv (x2)	cap perm/ (x3)
Lichid (x1)	Pearson Correlation	1	.915**	.771**
	Sig. (2-tailed)		<.001	<.001
	N	40	40	40
Solv (x2)	Pearson Correlation	.915**	1	.731**
	Sig. (2-tailed)	<.001		<.001
	N	40	40	40
cap perm/ (x3)	Pearson Correlation	.771**	.731**	1
	Sig. (2-tailed)	<.001	<.001	
	N	40	40	40

Figure 15 „Correlations"

Source: „Data processed by the author"

Also, the strong correlation between liquidity and the ratio between permanent capital and fixed assets results in the fact that the remaining solvency variable in the model leads to the exclusion of the other two. If the ratio between permanent capital and fixed assets remains in the model, the other variables, namely solvency and liquidity, will be excluded, which leads us to the conclusion that there is a strong correlation between them.

In order to highlight the existence of the correlation, we performed the following tests:

1. Multicollinearity, which checks if there is a connection between independent variables. In this case r square is smaller compared to r square from the initial result which means that multicollinearity is not present. The lack of multicollinearity in this case is a favorable aspect, so this is not the problem.
2. Heteroscedasticity of errors, which checks whether the errors depend on independent variables. It is also desirable to meet the case of homoskedasticity, ie the case where the errors do not depend on the independent variables. We obtain a larger r square which means that heteroskedasticity is present and we are in the situation where the errors depend on the dependent variables.
3. Autocorrelation of errors, which implies the existence of a non-zero covariate between the errors in the regression equation. In this case I used the Durbin Watson test and it turned out that the errors are not autocorrelated, because the result tends to 2 which is good.
4. Wrong specification of the regression model, where we obtained for r square values close to the initial r square. Which means that the above tests are correct except for the heteroskedasticity of errors.

4. CONCLUSIONS

The average value recorded by the ROA in the analyzed period is well below the minimum limit of 5%, which means that the way in which the assets of the companies in the metallurgical industry are managed is not efficient and implicitly these companies do not generate profits.

Regarding the average ROE in the metallurgical industry we can see that it has a downward trend over the analyzed period (2016-2019). While the ROE decreases during

the analysis period the profit that belongs to the owners for the investments made, also decreases. Also, against the background of these decreases, the possibilities of receiving dividends from the end of each financial year will decrease.

Following the first regression we obtained a coefficient of determination (R ^ 2) with a value of 0.15, which means that the variations of ROA are influenced in proportion of 15% by the simultaneous variations of the equilibrium indicators, the remaining 85% are due to the residual variable and a correlation coefficient (r) of 0.39, ie the correlation coefficient has the value 0.39, it results that it tends to 0 which means that there is no linear link between the ROA and the analyzed equilibrium indicators.

Performing the second regression we obtained a coefficient of determination (R ^ 2) with a value of 0.16, which means that the variations of ROE are influenced in proportion of 16% by the simultaneous variations of the equilibrium indicators, the remaining 84 % is due to the residual variable and a correlation coefficient (r) of 0.40, ie the correlation coefficient is 0.40, it results that it tends to 0 which means that there is no linear link between the ROE and the analyzed equilibrium indicators.

As can be seen in both ROA and ROE, the value of R ^ 2 is very small, which concludes that the variations of these indicators are influenced in proportions by 15% for ROA and 16% for ROE of simultaneous variations of the financial equilibrium indicators chosen in this analysis (liquidity, solvency, the ratio between permanent capital and fixed assets). But as a comparison between the two profitability indicators ROE is more strongly influenced by the equilibrium indicators by 1%.

Another aspect identified in the present analysis is that there is no strong linear link between both ROA and equilibrium indicators and between ROE and equilibrium indicators.

Regarding pearson's correlation we have a very high correlation between liquidity and solvency, followed by liquidity and the ratio between permanent capital and fixed assets, which means that if liquidity remains in the model the other variables will be excluded. Also, the strong correlation between liquidity and the ratio between permanent capital and fixed assets results in the fact that the remaining solvency variable in the model leads to the exclusion of the other two. If the ratio between permanent capital and fixed assets remains in the model, the other variables, namely solvency and liquidity, will be excluded, which leads us to the conclusion that there is a strong correlation between them.

In conclusion, following this study, the H2 hypothesis is validated. The profitability of companies is not influenced by ensuring the state of financial equilibrium.

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