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EMPIRICAL PERSPECTIVE ON CORPORATE DEFAULT RISK AT INDUSTRY LEVEL. CASE-STUDY ON COMPANIES LISTED ON ROMANIAN STOCK EXCHANGE

Abstract. *This paper focuses on applying Black and Scholes structural approach on credit risk in the case of the companies listed on Romanian Stock Exchange. We conduct a case-study on 35 companies belonging to 5 industries (energetic, materials, chemistry, pharmaceutical sand equipments during a period of 10 years in order to highlight out default point/threshold and its essential factors evolution across industries. Research approach is concentrated also on the specific characteristics of the Romanian capital market (especially in terms of illiquidity and lack of transparency additional costs), macroeconomic environment and corporate finance decision process.*
We compute default point from the perspective of the arbitrage between assets and leverage; in accordance with the most recent theories on specific features corporate default within emerging countries (Galytskyy, 2006), a key element will be represented by the assets volatility which will be correlated with the country risk premium in order to highlight out a potential macroeconomic impact on corporate failure.
Key words: *distance to default, default point, industry impact.*

JEL Classification: G32

INTRODUCTION

Credit risk literature has highly expanded under the impact of the financial globalization and Basel 2 regulatory framework. Corporate default has become a challenge for analysts in terms of prediction and assessment. Classical perspective developed by Altman credit scoring model has been followed up by the structural (Merton, 1974, Black and Scholes, 1973) and reduced form approach (Duffie,

Singleton, 1999). From the perspective of the structural approach, credit is conceived as a contingent claim on the value of company' assets and is assessed according to the option pricing theory (Elizalde, 2005). Default will intervene whenever the value of the firm will reach a pre-set threshold (Davydenko, 2005). Hsu, Saa and Santa-Clara (2004) have pointed out that this ''threshold corporate default'' is represented by the leverage multiplier ratio . The Reduced Form or Intensity models conceive time of default as being determined exogenously, modelling the market value of the firm in accordance with its capital structure having no importance ; default time will be represented by the time of the first jump of a Poisson process with random intensity (Cohen, 2007). Recently, there have been developed Non-Paraemtric Models (Chen 2006) where default is valued based on the historical information on the ratios reflecting the market value of the firm. Alternative approaches using non-parametric methods include also classification trees, neural networks and fuzzy algorithms (Kraft, Muller, 2004).

Nevertheless, the aforementioned theories can not be generally applied to the corporations based in emerging countries. Underdeveloped financial systems, lack of liquidity and of financial history, unstable macroeconomic environment, differences in financial reporting are usually the difficulties encountered when it comes about implementing and calibrating a corporate default model especially created for corporations located into emerging countries. Zulkarnain Sori (2006) made a research on Malaysian listed firms during the Asian financial crisis and pointed out that distress signs have been shown out long before the Asian Financial Crisis in 1997 and concluded that if those symptoms have been detected earlier, the impact of the crisis might have not been so tough.

Since emerging markets imply a high degree of peculiarity, there will be needed an individual approach developed also at the level of the industry. Fernandes (2005) elaborated a study on the listed Portuguese firms across industries and implemented scoring models in accordance with the business profile of the company. Significant differences have been identified between the general approach (which has not made any differenciation according to the industry) and the industry level adapted one.

Lateley, there have been pointed out that emerging countries tend to become more and more correlated with the developed ones in terms of macroecomic volatility. The recent subprime mortgage crisis has affected all the financial systems, inclusvely the emerging ones. A sudden drop of the corporate yields has been remarked inclusively at the level of the emerging countries. Therefore, a particular attention must be paid to the corporate default valuation as for the emerging countries. This study has been conducted in order to have a more thorought overview on the corporate default across industries in the case of the companies listed on the Bucharest Stock Exchange. The structural approach has been valorized. The research is performed both at the level of the corporate default indicators, but also at the level of the capital structure specifications across industries. Distance to Default and Default Point are the main indicators that have been valorized. The focus has been directed towards potential higher correlations between certain industries and macroeconomic environment from the perspective

of the theories that concentrate on the impact of the macroeconomic stability on the corporate default within the emerging countries (Hochrainer, S., 2006).
There has been approached also a differenciation in terms of corporate default determinants according to the business profile.
Conclusions subscribe to the idea that corporate default valuation varies across industries and it is necessary to perform an industry level approach in order to increase corporate default models accuracy.
This study is structured as follows: section 2 is dedicated to the case-study which includes a research on the Distance to Default and Default Point descriptive statistics in accordance with the industry, section 3 contains a research on the corporate default determinants and section 4 concludes.

2. CASE STUDY

2.1 DATABASE AND METHODOLOGY DESCRIPTION

The most recent theories regarding the corporate default assume a certain differentiation across industries. It has been pointed out that there are several industries which are more exposed to corporate default and therefore, corporate default assessment and prediction must be adapted to. This study focuses on revealing if this impact can be validated at the level of a sample of 34 companies listed on the Romanian Stock Exchange. The innovative element consists of highlighting out a potential industry impact/ differentiation in terms of corporate default prediction/assessment in the case of the corporations located into an emerging East European country such as Romania which implies an assemble of characteristics in terms of corporate finance decision making process: high degree of macroeconomic volatility and illiquid underdeveloped capital market. The sample includes companies activating in 5 fields (energy, pharmaceutics, chemicals, equipments, materials).
The study follows up the research pathway initiated by Fernandes E., J (2005), Ericsson, J., Reneby, J (2005), Elizalde A. (2005b) and Chen(2006).
Companies activating in the financial services field have been eliminated from the database because of the specific features implied by their activity in terms of capital structure.
The deep analysis will be performed in terms of descriptive statistics corresponding to the default point and distance to default (DD) indicators determined both globally and at the level of every business profile in order to highlight out a potential industry impact on the corporate default valuation.
Variables will be integrated into default point and distance to default valuation in accordance with Merton's structural perspective on corporate default:
DD = (Market Value of Assets – DP) / (Market Value of Assets* Assets Volatility)
Where:
DD= distance to default
DP = default point

The default point will conceived under the term of the arbitrage between liabilities and assets. Literature agreed on the fact that default point quantification can be made by the liabilities perspective:
DP = STD +0,5*LTD
where:
DP = Default Point
STD = Short term debt
LTD = Long term debt

A firm is more and more exposed to default as long as assets will tend to equalize the value of the total liabilities. In other words, negative net worth triggers default.
Other variables which have been integrated into the Distance to Default valuation (DD) are represented by the market value of assets (reflected into the market capitalization of the company) and assets volatility (measured by the variance of the return on assets (ROA) .
The analysis performed at the level of the Descriptive Statistics corresponding to the Distance to Default (DD) and Default Point indicators will be exerted also at the level of the industry impact on financial ratios. There have been selected three financial ratios (leverage, return on assets and earnings per share(EPS)) reflecting both book and market company value whose dynamic has been followed up at the level of the 5 business segments.
The last part of the case study will concentrate on the Distance to Default determinant factors. There will be valorized a differentiated Distance to Default factorial perspective in accordance with the 5 different business profiles.
The sources the information was obtained from were the following:

- www.ktd.ro site in order to get information on the financial indicators characteristic to the 34 companies;
- www.bvb.ro site in order to get an insight on the companies listed on the Romanian Stock exchange.

As for the methodology, analysis of the descriptive statistics and regression are the most frequently used tools in order to highlight out the industry impact on corporate default.
Financial ratios will be analyzed during a period of 10 years (1997-2007).

2.2 DESCRIPTIVE STATISTICS ANALYSIS OF THE BUSINESS PROFILE DEFAULT POINT

In order to highlight out the industry impact on the corporate default valuation, default point has been computed at the level of every business profile; consolidation of the financial input corresponding to the companies listed on the Bucharest Stock Exchange has been the method by which default point has been assessed.

Corresponding descriptive statistics underline a certain differentiation of the default point in accordance with the business profile. Default point valuation reflects also financing policy of the company; a high default point underlines an aggressive leverage policy while a low default point is the mark of the self-financing (pecking behaviour).

Table no 1. **Descriptive Statistics corresponding to energy sector default point**

MEAN	**CONFID. -95%**	**CONFID. +95%**	**MEDIAN**
2.012.074,90	1.764.345,18	2.259.804,63	1.960.000,00
Variance	**Std.Dev.**	**Maximum**	**Minimum**
103.867.240.754,55	322.284,41	1.645.808,47	2.491.687,83
Lower Quartile	**Upper Quartile**	**Range**	**Quartile range**
1.710.089,32	2.232.414,85	845,879.36	522,325.54
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
-1,44	1.40	0.29	0.72

Source: own processing

An analysis at the level of the descriptive statistics corresponding to the default point reveals the fact that the highest default point is recorded by the companies activating in the energy field while the lowest one is recorded by the companies activating in the pharmaceutical sector.

Energy field implies a high degree of technical endowment and an aggressive investing policy frequently supported by leverage which triggers a high default point.

The high energy business profile Default Point can be explained also from the perspective of the tough pricing policy implied by the continuous oil price increase.

Pharmaceuticals imply a high working capital level and the short-term financing policy which triggers a low default point.

Chemicals and equipments are quite similar in terms of default point level while materials are closer to chemicals.

The Default Point Skewness indicator is identical in the case of the chemical, equipment and material business profile (0,66) and it is quite close to the energy Default Point Skewness indicator (0,72);

***Table no 2*. Descriptive Statistics corresponding to pharmaceutics sector default point**

MEAN	**CONFID. -95%**	**CONFID. +95%**	**MEDIAN**
39.362,59	26.445,17	52.280,01	46.910,09
Variance	**Std.Dev.**	**Maximum**	**Minimum**
369.708.709,15	19.227,81	64.639,73	13.599,30
Lower Quartile	**Upper Quartile**	**Range**	**Quartile range**
18.703,47	53.301,27	51,040.43	34,597.80
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
-1,78	1,28	-0,19	0,66

Source: own processing

Chemicals, equipments and materials practice a financing policy based on a mixture between long term and short term debt. Default point volatility may represent an adequate indicator of the business risk. The highest volatility associated to the default point is recorded by the energy sector which reflects the fact that business risk is one of the most significant in the case of the oil processing companies determined by the oil price dynamic and by the limited worldwide oil resources.

***Table no 3*. Descriptive Statistics corresponding to the chemicals sector default point**

MEAN	**CONFID. -95%**	**CONFID. +95%**	**MEDIAN**
173,431.19	126,133.65	220,728.73	165,932.31
Variance	**Std.Dev.**	**Maximum**	**Minimum**
4,956,615,985.85	70,403.24	343,707.85	93,671.32
Lower Quartile	**Upper Quartile**	**Range**	**Quartile range**
123,747.25	196,951.35	250,036.52	73,204.10
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
2.86	1.28	1.42	0.66

Source: own processing

The lowest Default Point volatility is recorded by the pharmaceutical field which reflects the fact that business profiles deeply rooted into vital products such as medicines imply a low business risk because of a steady demand.

***Table no 4*. Descriptive Statistics corresponding to the materials sector default point**

MEAN	**CONFID. -95%**	**CONFID. +95%**	**MEDIAN**
115,419.43	72,566.73	158,272.13	93,592.25
Variance	**Std.Dev.**	**Maximum**	**Minimum**
4,068,784,111.47	63,787.02	266,935.80	52,773.57
Lower Quartile	**Upper Quartile**	**Range**	**Quartile range**
77,007.37	148,668.29	214,162.23	71,660.92
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
2.33	1.28	1.58	0.66

Source: own processing

Chemicals and materials have similar default point volatility which reflects the fact that both industries imply raw materials processing.

***Table no 5*. Descriptive Statistics corresponding to the equipment sector default point**

MEAN	**CONFID. -95%**	**CONFID. +95%**	**MEDIAN**
91,963.10	61,654.11	122,272.08	85,275.83
Variance	**Std.Dev.**	**Maximum**	**Minimum**
2,035,405,874.40	45,115.47	176,324.45	10,767.86
Lower Quartile	**Upper Quartile**	**Range**	**Quartile range**
66,774.99	121,516.35	165,556.59	54,741.36
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
0.57	1.28	0.25	0.66

Source: own processing

2.3 DESCRIPTIVE STATISTICS ANALYSIS OF THE BUSINESS PROFILE DISTANCE TO DEFAULT (DD)

Distance to Default descriptive statistics analysis reveals some interesting aspects regarding the business risk profile. The lowest Distance to Default value is recorded by the chemical sector while the highest one is recorded by pharmaceuticals which had the lowest default point volatility.

This is in line with the assumption that Default Point and Distance to Default volatility can be correlated. A low Default Point volatility keeps a business sector out of the corporate default danger area.

Energy sector ranks secondly in terms of descending Distance to Default, but reported to the pharmaceutical sector, the gap is a high one.

While energy has the highest Default Point and the most aggressive leverage policy, when it comes about Distance to Default ranking, it is very closely positioned to materials and equipments.

Table no 6. **Descriptive Statistics corresponding to the energy sector DD**

MEAN	**CONFID. - 95%**	**CONFID. +95%**	**MEDIAN**
227.5826	178.419	276.7461	254.8547
Variance	**Std.Dev.**	**Maximum**	**Minimum**
10,404.47	102.00	353.00	0.00
Lower Quartile	**Upper Quartile**	**Range**	**Quartile range**
175.07	298.79	353.00	123.72
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
0.80	1.01	-1.07	0.52

Source: own processing

This can be explained by the logistic and production process similarities. Since all the three business profiles imply raw materials acquisition and processing, they are obeyed to their pricing policy fluctuations.

Table no 7. **Descriptive Statistics corresponding to the chemicals sector DD**

MEAN	**CONFID. - 95%**	**CONFID. +95%**	**MEDIAN**
56.53	-211.08	324.13	216.57
Variance	**Std.Dev.**	**Maximum**	**Minimum**
158,671.37	398.34	286.08	-1,098.80
Lower Quartile	**Upper Quartile**	**Range**	**Quartile range**

65.04	249.78	1,384.88	184.74
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
8.88	1.28	-2.90	0.66

Source: own processing

The highest Distance to Default volatility is recorded by the pharmaceutical sector. Although this sector is placed at the highest Distance to Default, it seems that the implied volatility is the highest one too.

Materials and energy sectors have similar Distance to Default volatility.

***Table no 8*. Descriptive Statistics corresponding to the pharmaceuticals sector DD**

MEAN	**CONFID. -95%**	**CONFID. +95%**	**MEDIAN**
3,365.67	-1,493.04	8,224.39	109.46
Variance	**Std.Dev.**	**Maximum**	**Minimum**
52,305,959.38	7,232.29	286.08	-1,098.80
Lower Quartile	**Upper Quartile**	**Range**	**Quartile range**
65.04	249.78	1,384.88	184.74
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
-8.88	1.28	-2.90	0.66

Source: own processing

The lowest Distance to Default is recorded by the equipment sector. As for the Skewness indicator, all the business profiles have recorded the same value (0,66).

***Table no 9*. Descriptive Statistics corresponding to the materials sector DD**

MEAN	**CONFID. -95%**	**CONFID. +95%**	**MEDIAN**
197.26	126.21	268.32	203.55
Variance	**Std.Dev.**	**Maximum**	**Minimum**
11,186.42	105.77	314.14	-4.23
Lower	**Upper**	**Range**	**Quartile**

Quartile	Quartile		range
104.98	301.67	318.37	196.69
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
-0.48	1.28	-0.70	0.66

Source: own processing

Materials and energy sectors have similar Distance to Default volatility .

Table no 10. **Descriptive Statistics corresponding to the equipment sector DD**

MEAN	CONFID. -95%	CONFID. +95%	MEDIAN
205.46	194.63	216.3	205.88
Variance	**Std.Dev.**	**Maximum**	**Minimum**
260.21	16.13	239.39	181.29
Lower Quartile	**Upper Quartile**	**Range**	**Quartile range**
197.07	214.71	58.1	17.64
Kurtosis	**Std.Err. Kurtosis**	**Skewness**	**Std.Err. Skewness**
1.03	1.28	0.56	0.66

Source: own processing

In order to get a deeper insight on the industry impact on the corporate default valuation, there have been selected three ratios reflecting both book and market company value (leverage, return on assets and EPS).
Equipments sector has the highest leverage while pharmaceutics has the lowest one.

Table no 11. **Financial Ratios in accordance with the business profile**

	Leverage	ROA	EPS
energy	0.507078	0.016556	0.016737778
pharmaceutics	0.469732	0.105764	0.051951667
chemicals	1,67	5,55	0,40
materials	5, 78	-2,01	-0,23
equipments	31, 47	0,84	207,76

Source: own processing

It is very interesting that although energy has the highest Default Point, when it comes about leverage level, it is outperformed by the equipment section which highlights out the fact that energy sector is strongly capitalized than equipment. In fact, default point is obtained by the global perspective on the mixture between long term debt and short term debt while leverage derives from the weight of the total debts into the assets.
The lowest value is recorded by the pharmaceutics which is in line with the initial assumption of the lowest default point.

Table no 12. **Descriptive Statistics of the Financial Ratios according to the business profile**

	Mean	**Minimum**	**Maximum**	**Std.Dev.**
Leverage	7.981652	0.469732	31.47463	13.31185
ROA	0.199658	-0.0201	0.840618	0.361339
EPS	41.60136	-0.23793	207.7677	92.89007

Source: own processing

Chemicals are the most profitable sector both from the perspective of the EPS and ROA while material is the lowest one; this situation is quite contradictory since both segments imply raw material processing and acquisition.
The highest volatility is recorded by the EPS; this can be explained by the fact that market value profitability is impacted to a high extent by the macroeconomic environment volatility (inflation, national currency depreciation).

3. WHAT TRIGGERS DISTANCE TO DEFAULT?

This section is dedicated to the Distance to Default structural approach from the perspective of the industry impact.
There have been performed regressions at the level of the 5 business segments in

Table no 13. **Energy regression**

Regression Summary for Dependent Variable: VAR1						
R= .41814724 R²= .17484712 Adjusted R²= -----						
F(3,6)=.42379 p<.74306 Std.Error of estimate: 18.573						
		St. Err.		St. Err.		
	BETA	of BETA	B	of B	t(6)	p-level
Intercpt			202.3085269	19.76738602	10.23446	5.07E-05
VAR2	0.032445	0.44528	0.655369543	8.994419071	0.072864	0.944283
VAR3	0.323045	0.390637	147.1500223	177.9389799	0.826969	0.439896
VAR4	-0.25558	0.425944	-14.05843836	23.42972267	-0.60003	0.57044

Source: own processing

order to determine which are the most significant variables impacting Distance to Default.

Regressions conceived Distance to Default as independent variable and the set of 3 financial ratios as dependent variables. The choice for the 3 ratios has been impacted mostly by previous research activity based on the identification of the most important financial ratios. Applying Multiliniar Discriminant Analysis on a panel of 30 financial ratios for 150 companies, statistic output allowed us in the previous research papers to conceive the three indicators as being the most significant ones within financial analysis process [1]

Synthetically, Distance to Default can be modelled by linear regression according to the business profile as follows:

Table no 14. **Distance to default model according to the business profile**

BUSINESS PROFILE	**DISTANCE TO DEFAULT MODEL**
EQUIPMENT	DD = -0.68871* LEV -0.77414* ROA + 0.261542* EPS
MATERIALS	DD = -0.12356 * LEV -0.36919*ROA + 0.522267*EPS
CHEMICALS	DD= 0.032445* LEV+ 0.323045*ROA -0.25558*EPS
PHARMACEUTICALS	DD= -0.55875* LEV + 0.719256*ROA -0.57248*EPS
ENERGY	DD= 0.032445* LEV +0.323045 ROA -0.25558 EPS

Source: own processing

Table no 15. **Pharmaceuticals regression**

Regression Summary for Dependent Variable: VAR1						
R= .95395600 R²= .91003206 Adjusted R²= .85605129						
F(3,5)=16.858 p<.00478 Std.Error of estimate: 2994.2						
		St. Err.		St. Err.		
	BETA	of BETA	B	of B	t(5)	p-level
Intercpt			7849.292337	5648.151969	1.38971	0.223318
VAR2	-0.55875	0.134969	-28186.72455	6808.626299	-4.13985	0.008998
VAR3	0.719256	0.142326	209469.6653	41449.86494	5.053567	0.003921
VAR4	-0.57248	0.142191	-199560.4927	49565.92762	-4.02616	0.010059

Source: own processing

[1] *Credit-scoring scoring models and their multidimensional practical approach: case study on the Romanian listed companies on the Bucharest Stock Exchange* – research published within the volume „Business Excellence"/ Review of Management and Economical Engineering, Special issue, 2007. ISSN-1583-624X Authors: Petre Brezeanu, Cristina-Maria Triandafil.

The most significant regression output is delivered in the case of the pharmaceutics and equipment section.
EPS is delivered as the most significant DD determinant factor for both business segments.
The profitability can be considered the most important measure of a company's performance. In the long run, a company must remain profitable in order to keep good liquidity and solvency ratios. A high profitability will keep company away from corporate default area.

Table no 16. **Chemicals regression**

Regression Summary for Dependent Variable: VAR1						
R= .41814724 R²= .17484712 Adjusted R²= -----						
F(3,6)=.42379 p<.74306 Std.Error of estimate: 18.573						
		St. Err.		St. Err.		
	BETA	of BETA	B	of B	t(6)	p-level
Intercpt			202.3085	19.76738602	10.23446027	5.07E-05
VAR2	0.032445	0.44528	0.65537	8.994419071	0.072864021	0.944283
VAR3	0.323045	0.390637	147.15	177.9389799	0.826969011	0.439896
VAR4	-0.25558	0.425944	-14.0584	23.42972267	-0.600025812	0.57044

Source: own processing

EPS will act also as a good signal for investors which will strengthen company image on the market.
As for the other business segments, regression output is closer to the 0.5 significance level of the R-squared coefficient.
We could conclude that equipments and pharmaceuticals Distance to Default sectors are more impacted by the idiosyncratic risk while for the other sectors – energy, chemicals, materials- the strongest impact derives from the macroeconomic context.
Energy is directly impacted by the worldwide oil quotations and also by the competition exerted on the Romanian market between Petrom and Rompetrol.
Chemicals are also impacted by the contradictions regarding potential privatizations (e.g. Oltchim).

Table no 17. **Materials regression**

Regression Summary for Dependent Variable: VAR1						
R= .42602089 R²= .18149379 Adjusted R²= -----						
F(3,6)=.44348 p<.73062 Std.Error of estimate: 465.10						
		St. Err.		St. Err.		
	BETA	of BETA	B	of B	t(6)	p-level

Intercpt			61.26862	163.6258665	0.374443359	0.720951
VAR2	-0.12356	0.552518	-3.41056	15.25074881	-0.223632457	0.830463
VAR3	-0.36919	0.624927	-3457.45	5852.452561	-0.590768624	0.576236
VAR4	0.522267	0.478582	185.3109	169.8109221	1.091278123	0.317022

Source: own processing

The least significant statistic results were obtained in the case of the materials, equipments and energy field.
The associated p-values to the financial ratios as dependent variables reflect the fact that in the case of these business profiles Distance to Default is not impacted to a high extent by profitability and leverage ratios.

Table no 18. **Equipments regression**

Regression Summary for Dependent Variable: VAR1						
R= .81045909 R²= .65684394 Adjusted R²= .48526591						
F(3,6)=3.8283 p<.07610 Std.Error of estimate: 78.968						
		St. Err.		St. Err.		
	BETA	of BETA	B	of B	t(6)	p-level
Intercpt			439.7938	82.98812681	5.299478229	0.001831
VAR2	-0.68871	0.355997	-4.69873	2.428784865	-1.93459947	0.101197
VAR3	-0.77414	0.269366	-143.836	50.0486502	-2.873933605	0.028281
VAR4	0.261542	0.362079	1.039768	1.439455443	0.722333962	0.497265

Source: own processing

CONCLUSIONS

Research concentrated on the industry impact on the Distance to Default structural approach valuation. Analysis performed at the level of the Distance to Default and Default Point determinants highlight out the fact that indeed there is a business profile differentiation in terms of default assessment at the level of the companies listed on the Bucharest Stock Exchange and financial analysis must be adapted to the characteristics implied by every industry sector. It has been pointed out that energy and chemicals are more exposed to the macroeconomic impact while pharmaceuticals and equipments are more exposed to the idiosyncratic risk reflected into the classic financial ratios.
Although energy had the highest Default Point, equipment had the utmost leverage and the lowest Distance to Default. The actual research validated the hypothesis of a deep correlation between aggressive leverage and high default probability. Equipment has also the lowest profitability reflected by the ROA in comparison with the other sectors while profitability reflected by the EPS is the highest one.

This is in line with the assumption that aggressive leverage is supported by the good investors perception of the companies.
As for the default valuation, it is necessary to build up especially created models, perfectly adapted to the characteristics of the business profile. This will impact to a high extent the accurate prediction of the corporate default and will allow corporate default models granularity.

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