

THE ANALYSIS OF CAPITAL STRUCTURE IN LARGE ROMANIAN COMPANIES IN TERMS OF MATURITY OF RESOURCES

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1. A Short Theoretical Insight

A company's capital structure rates allow for the assessment of the company's **financial policies**, by highlighting aspects related to its financial stability and autonomy.

In adopting funding decision, a company must possess rigorous criteria, which should enable it to select and combine all the sources which are thereafter used for the procurement of assets. The importance of duration, autonomy and flexibility should be outlined among the variables likely to determine such decisions. However, the choice of a funding method is especially determined by its **cost**, on the one hand and the existing **capital structure**, on the other hand. There is, hence, an indissoluble connection between **the cost of capital** and **capital structure**. An optimal capital structure corresponds to a minimum cost of capital.¹

The company's total capital, divided by sources, is reflected by the liabilities in the balance sheet. For a better understanding and interpretation of the various capital structure rates of a company, we consider that the knowledge of the relations between the

various components is required, as shown in table 1.²

According to the criterion of *maturity*, of due dates, the total capital is presented starting with the less enforceable element, with the farthest due date, i.e. registered capital and legal reserves, followed by medium and long-term debt with a relatively far due date and continuing with short-term debt, whose due date is quite close.

Hence, **the analysis according to the maturity criterion** allows for an evaluation of how a company decides to procure its financial resources for the performance of activity, depending on the time horizon they are contracted for: short or long term. Thus, a company may resort to various capital sources, likely to support its activity for a certain amount of time: long term (permanent capital and long-term debt), medium term (medium term loans) and short term (short-term loans and trade debt to providers).

In the hereby study we shall use three financial structure rates reflecting the share of financial resources in the total capital, depending on maturity: the rate of financial stability, the rate of short-term debt and the rate of financing structure.

¹ D. Berceanu, *Deciziile financiare ale firmei – 2nd ed.*, Universitaria Publishing House, Craiova, 2006, p. 122

² D. Berceanu, T. Ciurezu, R. Bălună, *Evaluarea firmei*, Universitaria Publishing House, Craiova, 2010, p. 90

Registered capital	Equity	Permanent capital	Total capital
Capital premiums, reserves, carried over earnings, current earnings			
Medium and long-term debt			
Short-term debt			

Table 1. A Company's Capital Structure by Sources

The rate of financial stability (R_{FS}) reflects the share of the company's permanent capital (C_{perm}) in the total capital thereof (C_t):

$$R_{FS} = \frac{C_{perm}}{C_t}$$

A high level of this rate proves the permanence of the funding sources³, providing the company with a high degree of security and stability, as it may involve in various long-term activities, may perform investment, modernisation works or take over a new economic field. Long-term loans, by their very nature, are usually taken for much higher amounts than medium or short-term loans and, thus, provide the funding required for obtaining satisfactory performance. A low level of the rate of financial stability endangers the company's financial stability, as it means that funding is too much based on short-term debt, with a close due date. The rate of financial stability may be increased either by increasing permanent capital sources (increasing registered capital by shareholders' contribution, capitalisation of earnings, taking medium and long-term loans) or by reducing the share of short-term debt (by paying them and, hence, removing them as liabilities).

Normally, the rate of financial stability must exceed the rate of long-term assets, as the latter, as permanent uses, should be fully funded by permanent resources. Romanian academic literature properly recommends a level of 66% of financial stability and accepts a minimum level of 50% (at least half of the total capital of the company

should be permanent capital, to be used in the long run)⁴. Companies should not programme their activity in the short run, but with a comprehensive time perspective and, if the permanent capital is less than half of the total capital, serious stability issues might arise.

The rate of short-term debt (R_{STD}) reflects the share of short-term debt in total capital:

$$R_{STD} = \frac{STD}{C_t}$$

Obviously, the value of this rate adds up to the rate of financial stability, to the limit of 100%, so that the normal recommended value is 33% (short-term debt should not exceed half of the permanent capital) and the maximum admitted threshold for industrial companies is 50%. A higher level of the short-term debt rate is accepted in trade and services companies, as their activity is more based on transactions. In terms of dynamics, an increase in the rate of short-term debt is favourable if determined by the increase of operating debt by obtaining more tolerant payment deadlines, but unfavourable if the level of short-term loans increases as well, as the company's indebtedness and financial expenses would also rise. Analytical rates depending on the structure of short-term debt (financial debt, trade debt, other non-financial debt) are also used in economic practice.

The rate of financing structure (R_{FS}) reflects the share between short-term debt and permanent capital:

³ M. Siminică, *Diagnosticul financiar al firmei*, Sitech, Craiova, 2010, p. 52

⁴ L. Bușe, *Analiză economico-financiară*, Editura Economică, Bucharest, 2005, p. 72 and the following.

$$R_{str} = \frac{STD}{Cperm}$$

As it can also be deduced from the analysis of the previous rates, the maximum admitted level of this indicator is 100% and the recommended one is about 50%.

2. Case Study

The legal regulations in force have been complied with for the constitution of the sample of large Romanian companies. Thus, starting July 1, 2006, according to the provisions of the Order of the Minister of Public Finance no.

753/2006 on the organisation of large taxpayers, selection criteria were established for the category of large taxpayers. Based on such new criteria, large taxpayers are those companies whose turnover, stated in the financial documents of December 31 of the previous year, is at least 70 million RON. 26 large companies listed on the Bucharest Stock Exchange were selected for the accomplishment of this study, which implied the processing of the balance sheets for the years 2006-2009. Table 2 below presents the sample of companies.

No.	Name of the company	Symbol	Turnover (RON)				Average turnover
			2006	2007	2008	2009	
1.	Lafarge Agregate și Betoane	AGEM	106,894,331	131,972,720	174,775,579	118,214,582	132,964,303
2.	Albalact	ALBZ	102,107,766	154,647,477	190,546,810	225,975,200	168,319,313
3.	ALRO S.A.	ALR	2,197,658,651	2,045,525,398	1,968,015,548	1,410,481,647	1,905,420,311
4.	Alumil Rom Industry S.A.	ALU	96,360,489	110,386,175	113,620,804	94,289,943	103,664,353
5.	TMK Artrom	ART	336,178,983	522,572,481	678,876,133	441,696,576	494,831,043
6.	Antibiotice S.A. Iași	ATB	195,677,945	229,415,602	215,805,947	219,754,104	215,163,400
7.	ALUM S.A. Tulcea	BBGA	558,316,079	55,434,737	3,478,905	31,338,663	162,142,096
8.	Comcereal S.A. Constanța	CCRL	79,356,035	108,303,195	130,361,221	137,212,602	113,808,263
9.	Mechel Târgoviște S.A.	COS	646,851,428	809,910,584	1,107,164,182	529,627,523	773,388,429
10.	Dafora S.A.	DAFR	153,773,857	405,522,213	269,018,676	185,652,076	253,491,706
11.	Ductil S.A. Buzău	DUCL	135,466,728	139,464,579	160,756,536	130,821,442	141,627,321
12.	Emailul S.A. Mediaș	EMAI	76,064,531	78,036,909	84,963,892	78,745,250	79,452,646
13.	Foraj Sonde S.A. Ernei	FOSP	82,266,516	102,475,892	117,829,632	125,462,717	107,008,689
14.	INTFOR S.A. Galați	INOR	116,851,992	120,762,241	118,479,803	116,223,685	118,079,430
15.	Laminorul S.A.	LMRU	29,816,364	58,973,331	166,561,092	39,895,003	73,811,448
16.	Dan Steel Beclean	PRMT	59,837,085	172,243,878	243,242,637	202,844,352	169,541,988
17.	Romp petrol Well Services	PTR	62,287,305	87,354,241	104,860,057	68,773,160	80,818,691
18.	ArcelorMittal Roman	PTRO	921,878,861	826,496,459	823,038,432	352,654,298	731,017,013
19.	Farmaceutica Remedia	RMAH	84,476,274	110,010,348	139,235,082	159,814,483	123,384,047
20.	Zentiva S.A.	SCD	242,096,618	193,996,640	218,505,848	175,765,574	207,591,170
21.	ArcelorMittal Hunedoara	SIDG	746,541,085	666,784,470	592,099,439	132,991,473	534,604,117
22.	OMV Petrom S.A.	SNP	13,078,308,815	12,284,378,408	16,750,726,457	12,842,384,017	13,738,949,424
23.	ArcelorMittal Iași	TPRO	220,551,819	191,641,776	252,514,379	107,861,034	193,142,252
24.	TREFO S.A.	TREF	67,145,793	85,051,069	192,308,111	93,541,253	109,511,557

	Galați						
25.	Argus S.A.	UARG	108,776,688	126,214,105	213,791,518	139,163,942	146,986,563
26.	Uzinexport S.A. București	UZIN	8,999,079	19,068,194	148,748,260	136,086,618	78,225,538

Table2. The Analysed Companies

Most of these large companies present, at least in one of the four years subject to the analysis, a value of **financial stability** lower than the level recommended by academic literature, of 66%. A favourable aspect is, however, that this level is far below the accepted limit for a proper development of economic activity (50%) in quite a few cases. Concretely, such a situation may be seen in ArcelorMittal Roman and Farmaceutica Remedia in all the four years, in S.C. Lafarge Agregate și Betoane S.A. and Comcereal S.A. Constanța in 2008 and 2009, in Alumil Rom Industry S.A. in 2006, in INTFOR S.A. Galați, S.C. Laminorul S.A. and TREFO S.A. Galați in 2007-2009 and in ArcelorMittal Iași in 2006 and 2007. In the case of Alumil Rom Industry S.A. and ArcelorMittal Iași, the negative situation may be considered temporary, as the financial stability presents tendencies of recovery. Thus, if in 2006 Alumil Rom

Industry S.A. has a financial stability of 32.59%, this value increases progressively in the other analysed years, reaching, in 2009, a value of 69.33%, which means that using an excessive amount of short-term resources represented a momentary situation, required at a certain moment in time, but which did not perpetuate in the company's funding. We consider that the behaviour of ArcelorMittal Iași is a similar one, as this company has negative financial stability in the first year, due to a negative equity, given the carried over losses. Subsequently, even if carried over losses persist and increase every year, the company possesses enough resources for compensating it and ensuring an ascending financial stability, reaching a favourable financial stability in 2008 and 2009 and denoting its funding security, as it can be seen in the table below.

%

Symbol	2006	2007	2008	2009	I 2007/06	I 2008/07	I 2009/08
AGEM	59.12	41.31	32.72	24.95	69.88	79.20	76.25
ALBZ	72.81	78.77	72.52	68.21	108.18	92.07	94.06
ALR	83.43	78.73	73.52	67.23	94.37	93.39	91.44
ALU	32.59	49.46	43.17	69.33	151.73	87.30	160.59
ART	59.71	42.84	47.80	75.23	71.74	111.59	157.37
ATB	72.29	74.87	69.45	65.92	103.56	92.77	94.91
BBGA	14.07	94.27	93.01	89.05	670.00	98.67	95.74
CCRL	45.51	38.89	26.07	22.35	85.47	67.03	85.74
COS	54.72	64.31	70.60	46.71	117.52	109.79	66.16
DAFR	74.65	62.83	78.81	72.89	84.17	125.43	92.49
DUCL	85.69	84.86	84.24	84.99	99.03	99.28	100.88
EMAI	53.22	48.04	44.95	50.91	90.27	93.57	113.25
FOSP	77.71	79.38	69.88	70.23	102.16	88.03	100.50
INOR	42.47	37.12	34.90	36.47	87.40	94.02	104.50
LMRU	62.91	39.63	44.04	-4.09	62.99	111.12	-9.30
PRMT	94.41	70.02	67.81	70.29	74.17	96.84	103.67
PTR	85.36	85.02	92.06	91.79	99.61	108.28	99.71
PTRO	17.23	39.56	33.72	0.30	229.62	85.22	0.90
RMAH	33.38	29.13	33.35	24.25	87.24	114.49	72.71
SCD	74.65	81.41	82.72	85.48	109.05	101.61	103.34
SIDG	52.78	44.24	43.18	62.73	83.82	97.60	145.28

SNP	63.80	63.08	61.00	63.47	98.87	96.69	104.06
TPRO	-28.80	16.13	77.52	64.00	-55.99	480.66	82.57
TREF	41.77	39.52	28.47	36.03	94.61	72.05	126.55
UARG	51.02	51.69	60.79	62.15	101.31	117.60	102.24
UZIN	50.16	60.43	70.82	47.80	120.48	117.20	67.50

Table 3. The Rate of Financial Stability in Large Companies

On the other hand, S.C. Lafarge Agregate și Betoane S.A. and Comcereal S.A. Constanța have a worrying level of short-term debt in 2008 and 2009 and, what is worse, display an ascending tendency thereof in all the four years. In the case of the first company, that stated a null value of medium and long-term debt for all the analysed years, one must assess the reason for which equity increases at a lower pace than total capital. Examining capital structure, we notice a strong increase of short-term operating debt (a percentage increase of current financial debt, respectively of the amounts payable to credit institutions is, also, impressive, but this type of debt

represents quite a small rate in the company's total capital). In different circumstances, the increase of short-term operating debt could have been favourable, due to negotiating more advantageous payment terms with providers, but such a position is not possible if the company's financial stability is seriously affected. As for Comcereal S.A. Constanța, the high values of the short-term debt rate are explained by the constant decrease of equity, simultaneously with the oscillations of the two types of debt (medium and long-term), which either increase or decrease from one year to another.

%

Symbol	2006	2007	2008	2009	I 2007/06	I 2008/07	I 2009/08
AGEM	40.88	58.69	67.28	75.05	143.55	114.64	111.55
ALBZ	27.19	21.23	27.48	31.79	78.09	129.41	115.68
ALR	16.57	21.27	26.48	32.77	128.36	124.46	123.76
ALU	67.41	50.54	56.83	30.67	74.99	112.43	53.96
ART	40.29	57.16	52.20	24.77	141.88	91.31	47.46
ATB	27.71	25.13	30.55	34.08	90.70	121.53	111.58
BBGA	85.93	5.73	6.99	10.95	6.67	121.87	156.73
CCRL	54.49	61.11	73.93	77.65	112.13	120.99	105.03
COS	45.28	35.69	29.40	53.29	78.83	82.36	181.27
DAFR	25.35	37.17	21.19	27.11	146.63	57.00	127.95
DUCL	14.31	15.14	15.76	15.01	105.82	104.04	95.29
EMAI	46.78	51.96	55.05	49.09	111.07	105.94	89.18
FOSP	22.29	20.62	30.12	29.77	92.49	146.09	98.84
INOR	57.53	62.88	65.10	63.53	109.30	103.53	97.59
LMRU	37.09	60.37	55.96	104.09	162.77	92.70	186.00
PRMT	5.59	29.98	32.19	29.71	535.97	107.38	92.27
PTR	14.64	14.98	7.94	8.21	102.28	52.99	103.37
PTRO	82.77	60.44	66.28	99.70	73.02	109.67	150.41
RMAH	66.62	70.87	66.65	75.75	106.39	94.05	113.65
SCD	25.35	18.59	17.28	14.52	73.35	92.95	84.03
SIDG	47.22	55.76	56.82	37.27	118.09	101.91	65.59
SNP	36.20	36.92	39.00	36.53	101.99	105.66	93.66
TPRO	128.80	83.87	22.48	36.00	65.12	26.81	160.10
TREF	58.23	60.48	71.53	63.97	103.87	118.26	89.43
UARG	48.98	48.31	39.21	37.85	98.63	81.17	96.53
UZIN	49.84	39.57	29.18	52.20	79.39	73.73	178.90

Table 4 The Rate of Short-Term Debt in Large Companies

The **rate of financing structure** highlights and describes the same dimensions of corporate funding as financial stability and the rate of short-term debt. One must acknowledge the outstanding performance of Ductil S.A. Buzău and Rompetrol Well Services, who, in all the analysed years, have a financial stability index of more than 80%

(sometimes even 90%) and, hence, low rates of financing structure, due to a good management of financial resources. Rompetrol Well Services adopts a cautious borrowing behaviour, given the absence of current financial debt in all year and the constant reduction of medium and long-term debt.

%

Symbol	2006	2007	2008	2009	I 2007/06	I 2008/07	I 2009/08
AGEM	69.16	142.06	205.64	300.82	205.41	144.76	146.28
ALBZ	37.35	26.96	37.89	46.60	72.19	140.55	122.99
ALR	19.87	27.02	36.01	48.74	136.03	133.26	135.34
ALU	206.80	102.20	131.62	44.23	49.42	128.78	33.60
ART	67.47	133.43	109.18	32.93	197.75	81.83	30.16
ATB	38.33	33.57	43.98	51.71	87.58	131.00	117.56
BBGA	610.77	6.08	7.51	12.30	1.00	123.51	163.71
CCRL	119.75	157.10	283.57	347.37	131.19	180.50	122.50
COS	82.75	55.51	41.64	114.09	67.08	75.01	274.00
DAFR	33.95	59.15	26.88	37.19	174.21	45.45	138.34
DUCL	16.70	17.85	18.70	17.66	106.86	104.80	94.45
EMAI	87.91	108.16	122.46	96.44	123.04	113.22	78.75
FOSP	28.69	25.97	43.10	42.39	90.53	165.95	98.34
INOR	135.44	169.38	186.51	174.18	125.06	110.11	93.39
LMRU	58.96	152.35	127.09	-2542.32	258.40	83.42	-2000.45
PRMT	5.93	42.82	47.48	42.26	722.64	110.89	89.01
PTR	17.16	17.62	8.62	8.94	102.68	48.94	103.67
PTRO	480.39	152.76	196.59	32831.54	31.80	128.69	16700.51
RMAH	199.54	243.34	199.89	312.43	121.95	82.15	156.30
SCD	33.96	22.84	20.89	16.99	67.27	91.47	81.32
SIDG	89.45	126.04	131.61	59.42	140.90	104.42	45.15
SNP	56.73	58.52	63.95	57.56	103.15	109.28	90.01
TPRO	-447.19	520.07	29.00	56.24	-116.30	5.58	193.90
TREF	139.42	153.07	251.24	177.55	109.79	164.14	70.67
UARG	96.00	93.46	64.50	60.90	97.35	69.02	94.42
UZIN	99.37	65.48	41.20	109.19	65.90	62.91	265.06

Table 5. The Rate of Financing Structure in Large Companies

3. Conclusions

Performing an analysis of what happened on the stock exchange market in terms of transactions, with a close connection to the analysed rates, we notice that companies which perform properly in capital structure rates also perform properly with respect to transactions.

Thus, a first category including the companies Albalact S.A., Alro S.A., Antibiotice S.A., Dafora S.A., Ductil S.A., Rompetrol Well Services S.A. and

Zentiva S.A. may be set up. These companies are successful both in terms of transactions and the analysed capital structure rates.

A second category includes companies Petrom S.A. and Argus S.A. who do pretty well in terms of capital structure rates and have been true "stars" of the Bucharest Stock Exchange across the times, as the interest of investors in these companies has been remarkable in many cases.

A special category is that of the companies Foraj Sonde S.A. Ernei and

Dan Steel Group Beclean S.A. which, though doing well in terms of capital structure rates, have not had an outstanding behaviour on the stock exchange market.

The conclusion would be that, most of the times, the close connection between the interest of investors and a good economic activity (also reflected by the analysed capital structure rates) is confirmed.

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