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Influences of the Capital Structure and the Cost of Capital on Financial Performance. Case Study on ENGIE Group

Elena Valentina IVASCU[1], Nicoleta BARBUTA-MISU[2]*

Abstract

The main objectives of the company's financial management are to ensure financial performances and to choose the capital structure that corresponds to the lowest total cost of capital. The purpose of this paper is to analyse the relationship between the capital structure and cost, and the financial performance of Engie Transnational Group, one of the most important global electricity producers. The data used were extracted from the Amadeus and Bloomberg databases for the period 2010-2015. Financial performance was analysed both by creating and proposing an aggregate index, as well as based on the Z Conan & Holder score. The company's financial structure was analysed on the basis of the total leverage ratio and for the total cost of capital, the weighted average capital cost formula was used. The results obtained at the Engie Group level show that the capital structure is predominantly indebted, and the maximum financial performance is obtained when the financial structure is minimal and the weighted average capital cost is maximum. The reversed relationship between the financial structure and the financial performance is in accordance with the financial structure theories of information asymmetry, pecking order and dynamic trade-off. The reversed relationship is confirmed in all Engie Group companies, except one company from United Kingdom.

Keywords: *Financial performance, aggregate index, financial structure, solvency, weighted average cost of capital (WACC).*

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1. Introduction

The evolution of contemporary society is influenced by the direct involvement of the business environment, which is dynamic and whose development constantly implies setting goals and achieving performance. The enterprise is the cornerstone of the economy and its importance justifies the interest that various economic and social partners provide for their financial functioning and health. The survival of the enterprise in this dynamic and competitive environment by maintaining it on a line of efficiency and increasing performance, requires constant adaptation to the requirements of the external environment.

Current economic instability imposes permanent changes in the company that must be anticipated, known, analysed and managed. Therefore, any economic activity requires a profound analysis of financial performance to enable the real situation to be known, so that the enterprise can operate under conditions of superior profitability and, at the same time, ensure the maintenance of solvency and financial equilibrium. Consequently, financial performance analysis is a necessity for all businesses, as obtaining and maintaining performance are the conditions to subscribe to the ideology of progress.

The main objectives of the financial management to be pursued at the level of an enterprise to ensure performance are the choice of the capital structure in accordance with the size of the cost of capital. Thereby, the two objectives decisively influence the financial performance in view of the following considerations: the financing modalities imply certain costs for the enterprise, the efficiency of the activity requires the use of cheap capital, the choice of an optimal capital structure generates the maximization of the value of the enterprise, in particular by minimizing the costs of all inputs of capital. Financial management objectives become more difficult to manage within a group of companies operating in different countries, where the objectives of capital structure and cost are often not converging.

The paper is structured in the following sections: Section 2 presents the theoretical and empirical approaches to the relationship between capital structure and cost and financial performance; Section 3 describes the data and methodology used; Section 4 highlights the results obtained, and section 5 presents the final conclusions.

2. Theoretical and empirical approaches to the relationship between capital structure, capital cost and financial performance

In a competitive economic system, the major objective of the enterprise is to maximize its value, i.e. increase the wealth of its owners. This implies that the company operates in a profitable way and, at the same time, maintains its solvency and financial balance. Other objectives such as financial flexibility, maximum growth, maintaining financial strength and autonomy are possible alternatives, some substitutable, others opposing the goal of maximizing company value [15]. Thus, the performance of an enterprise is reflected by the good results obtained as a result of the activity carried out. Undoubtedly profit-making, maintaining the competitive market and the upward trend of enterprise wealth in both real and stock quotes is a good performance.

Continuous performance must be the goal of any business because only through performance they have the potential to create value for shareholders and for interested groups. The first necessary condition for improving and achieving excellence in business is to develop and implement a system for assessing enterprise performance [22]. Measurement of performance can be achieved with countless instruments due to the complexity of the phenomena, economic processes and variety of the particular situations in which the company's activity takes place. Therefore, in order for an indicator to become useful, both its significance and its limitations must be well understood, the indicator being useful only in relation to the hypothesis assumed and the objectives pursued. If such a correlation exists, the measurement may become a standard of comparison [14, 22]. Moreover, the indicators are not absolute criteria, having the role of expressing the financial conditions and the performance for certain periods of time, as well as the risk, i.e. the opportunity of the analysed enterprise.

Good knowledge of financial management requires the knowledge of the state of the enterprise to the highest degree and the timely identification of various problems, effects, causes leading to expected or unwanted changes in economic and financial activity [1]. Using rates in market economy is a means of analysing and establishing a financial diagnosis; this method complements the analysis of absolute indicators and allows comparisons to be made in space to better position the enterprise in the competitive environment or over time to appreciate its evolution [19]. Furthermore, over time, the efficiency of using a judiciously chosen rate combination to assess the firm's performance has been demonstrated by

providing each selected rate of significant coefficients and determining an aggregate index or by using bankruptcy risk assessing models based on Z score.

The capital structure, reflected by the total leverage ratio, shows the dependence of the enterprise on various creditors and the chances of repaying debts [19], as well as the extent to which short and long term commitments are guaranteed by the company's total assets. This indicator can also be considered a rate of financial autonomy of society [3].

Although, in a traditional manner, capital structure measures the book leverage, that means the ratio of total book debt-to-total assets [24]. In the literature, there is a positive relation between profitability and leverage arguing that more profitable firms should have more reasons to take advantages of the interest tax shield and increase leverage [9]; also more profitable firms are also likely to have greater debt capacity. This relation is in line with the agency theory that states since agency costs increase with free cash flow [16], profitable firms should be more levered to alleviate these costs. Consistent with the agency costs hypothesis, Berger and diPatti showed that higher leverage is significantly associated with higher profit efficiency [5].

But this relation is no longer valid when we are considering the large information asymmetries between firms and banks, materialised in the increase in interest rates, especially when the banks have no many information about the firm performance. Also, profitable firms with internal sources of finance will prefer to use these and demand less credit, since the external finance cost is relatively high [11]. Thus, less profitable firms will use more bank debt, since they lack internal funding. This leads to a negative relationship between profitability and leverage.

Both the pecking-order theory [17] and the dynamic trade-off theory [23] suggest a negative relation between firms' profitability and leverage. Many other studies reflect the same negative relationship [6]. It may be explained when investments are fixed, and higher profitability allows management to avoid external financing due to higher information costs [2]. It is generally accepted that firms that have more profits tend to have lower leverage given that high retained earnings reduce the need of external financing with debt. It could also be the case that firms limit the issuance of debt to protect their competitive advantage while producing these high operating profits [21].

A profitable firm with a slow growth rate will end up with a low leverage ratio compared to the industry average in which it operates. On the other hand, an unprofitable firm in the same industry will end up with a relatively high debt-equity ratio. In this sense, profitability allows the firm to

use retained earnings rather than external finance and a negative association between profitability and debt ratios would be expected [18]. Also, a firm with higher earnings per asset could prefer to operate with either lower or higher leverage. Higher leverage might reflect the firm's ability to meet debt payments out of its relatively high cash flow [13].

The minimization of the cost of capital ensures the survival of the enterprise and provides support for its development. The source of capital cost payment is represented by the monetary surplus generated in the process of their use [8]. The cost of capital can be defined as an opportunity cost, being a minimum rate of return that an investment project must generate for the purpose of paying financing costs. In order for the capital investment to be based, the return on investment money must be at least equal to the profitability of alternative investment opportunities with the same risk. Choosing a financing mode is determined by its cost, on the one hand, and by the existing financial structure, on the other [12]. Thus, it is important to maximize the value and implicitly the performance of the enterprise to choose an optimal financial structure that corresponds to a minimal cost of capital. So, capital cost theory implicitly leads to the same problem brought about by the capital structure, i.e. the issue of dividing the liability between equity and borrowed capital [7], each having a cost. The cost of capital represents the return required by the shareholders of the company to pay for their investment in that firm [12], that is, the rate of return that a firm has to make in order to maintain the value of the business [20].

The cost of equity can be determined using the Gordon-Shapiro model and Capital Assets Pricing Model. But, since the company's own funding sources may be either insufficient to provide a global financing need or less cost-effective, the company can attract other external sources, such as: bank loans, bond issues or contracts leasing. Loan capital represents the liabilities of an enterprise over a certain period of time and at a certain cost (interest rate) determined by contract, with preferential payment entitlement to the cost of equity [20].

The enterprise that has both debt and equity in its capital structure will have a total cost of financing equal to the weighted average cost of capital (WACC). The total cost of capital is based on the cost of each specific source of funds used net by the level of enterprise-wide tax rate for that component [4]. Regarding the profitability of the debt component, interest is a tax deductible expense for a taxable enterprise. But it should not be forgotten that taxes are paid and they are current cash outflow of the enterprise, and earnings for shareholders are available after the payment of company's taxes.

This study differs from other studies by the analysis of financial structure, capital cost and financial performance in the case of a group of firms. Also, the paper objective is to check if pecking order and dynamic trade-off theories are validated in the case of Engie group.

3. Aims of the research

The purpose of this paper is to analyse the influence of the capital structure and cost of capital on the financial performance of the Engie Transnational Group. The reason for electing the Engie Group is related to the relevance of the energy sector in which it operates, which has become a vital component and a cost factor for current economic development. Also, the Engie Group is one of the world's leading global electricity producers. The novelty and originality of the paper consists of proposing an aggregate financial performance analysis index validated by the Conan & Holder score Z [10] and applying the methodology described on a set of companies within a transnational group. We mention that the proposed aggregate index and methodology can be applied to firms or groups of firms in different sectors and to a larger sample of firms in different sectors of activity.

4. Financial Data and Research Methods

For the study of the relationship between the structure and the cost of capital and the financial performance of the company, the data from the unconsolidated financial statements of 10 firms belonging to the Engie group were used: 2 companies from France, Poland and the UK and 1 firm from Germany, Italy, Romania, Spain, for the period 2010-2015. The financial data of the companies analysed were extracted from: the Amadeus database (containing data from the balance sheet and the profit and loss account) and the Bloomberg database for the consolidated data of the Engie Group on the total dividend distributed, the dividend per share, the nominal value of a share, the price of an equity, the amount of equity, the total number of shares, the net profit and the stock exchange value.

To analyse the financial performance of companies, we propose to determine an aggregate index (AI) using six carefully selected indicators with the following weights:

$$\mathrm{AI} = 0{,}1\mathrm{Q_R} + 0{,}15\mathrm{R_{LTS}} + 0{,}2\mathrm{R_{FI}} + 0{,}25\mathrm{ROA} + 0{,}1\mathrm{ROE} + 0{,}2\mathrm{T}_{TA}$$

Q_R = Quick ratio (min. 0.05) = Cash & cash equivalent / Current liabilities;

R_{LTS} = Long-term solvency ratio (min 1.2) = Total assets / Total liabilities =

(Equity + Total Debt) / Total Debt;

R_{FI} = Financial independence rate (min. 0.25) = Equity / (Equity + Long-term liabilities);

ROA = Return on assets (min. 5%) = EBIT / Total assets;

ROE = Return on equity (min. 5%) = Net income / Equity;

T_{TA} = Total asset turnover (min 0.5) = Sales / Total Asset.

The rates included in the aggregate index reflect the company's liquidity, solvency, profitability and activity, and are characterized by maximum favourable values. Thus, the AI interpretation shows a high performance when the AI is highest, and a low performance when the AI is minimal or even negative. Weighting coefficients have been set so that profitability and solvency have the greatest importance in the aggregate index. We are considering the minimum performance limit when AI = 0.3525, resulting from the minimum acceptable rate of composition.

In order to validate the results provided by the aggregate index for assessing financial performance, a comparison will be made with the Z-score of the Conan & Holder model (1979), which was developed in 1973 on a sample of 190 small and medium-sized enterprises, between 1970-1975, half of which were failed three years earlier. The score function comprises five variables and is as follows:

$$Z = 0{,}24R_1 + 0{,}22R_2 + 0{,}16R_3 - 0{,}87R_4 - 0{,}1R_5$$

Z = Overall Index Conan & Holder

R1 = Gross Operating Surplus / Total Liabilities, and expresses the profitability of creditors;

R2 = (Equity + Long-term liabilities) / Total Liabilities, and expresses the solvency,

R3 = (Current assets – Stocks) / Total Liabilities, and expresses the liquidity;

R4 = Financial Expenditures / Net Sales, and expresses the rate of financial expenses;

R5 = Personnel Expenditures / Added Value, and expresses the rate of personnel costs.

Based on this model, the vulnerability of the enterprise according to the value of the function-score is appreciated in Table 1.

Table 1. Conan & Holder model – the company's vulnerability to bankruptcy risk

The value of the Z score	The situation of the enterprise	The risk of bankruptcy (%)
Z > 0,16	Very good	< 10
0,1 < Z < 0,16	Good	10 → 30
0,04 < Z < 0,1	Alert	30 → 65
-0,05 < Z <0,04	Danger	65 → 90
Z < -0,05	Fail	> 90

Source: Petrescu S. Analiză si diagnostic financiar-contabil, Ghid teoretico-aplicativ, 3rd Edition, 2010. Bucharest: CECCAR; page. 264.

After assessing the financial performance, the capital structure will be analysed based on the following calculation formula:

$$C_s = \frac{\text{Total liabilities}}{\text{Total assets}}$$

Subsequently, the total cost of capital and its components will be determined.

The cost of equity in common shares (Kc) will be determined using the Gordon-Shapiro model, which assumes that distributed dividends (D_v) grow at a constant rate d, starting from the present value of a stock (stock price), as follows [4]:

$$V_S = \sum_{i=1}^{n} \frac{Dv_1(1+d)^{i-1}}{(1+k_c)^i}$$

The equation is convergent if and only if the dividend capitalization rate (Kc) is higher than the dividend growth rate (d). Consequently, the present value of a stock can be calculated as follows [4]:

$$V_S = \frac{Dv_1}{K_C - d}$$

Where it follows:

$$K_C = \frac{Dv_1}{V_S} + d$$

In this case, the equity capitalization rate (Kc) is the sum of the yield rate on the title ($\frac{Dv_1}{V_s}$) and the expected growth rate of the dividends (d). The steady rate of dividend growth will be determined on the basis of the Gordon model and on the historical evolution of distributed dividends (Table 4).

The cost of debt capital (K_D) is the expense of interest paid, commission, and other financial charges that the firm pays for financing operations and can be determined using the formula:

$$K_D = \frac{Int}{Fin_D}(1 - t)$$

Int = value of interest paid;

Fin_D = current and non-current financial liabilities;

t = corporate tax rate.

The weighted average cost of capital (WACC) is a minimum, mandatory return on investment from the use of capital and can be determined as follows:

$$WACC = K_C \times \frac{E}{TA} + K_D \times \frac{D}{TA} \times (1 - t)$$

E = Equity;

D = Total Debt;

TA = Total assets.

In the following section, this methodology will be applied to the Engie Group data to reflect the relationships that exist between the structure and the cost of capital on the one hand and between them and the financial performance on the other.

5. Findings and Discussions

The analysis of the financial performance of the Engie Group according to the aggregate index AI (Table 2) shows the following: in 2010 the highest value of the index is registered, and then it decreased by 9.55% in 2011 and by 1.13% in 2012 compared to 2011. The year 2013 is the least performing, achieving a value of 0.1511, representing a decrease of 58.84% over the previous year. Over the past two years, there has been an upward trend in financial performance, reaching a value of 0.3411 in 2015. According to the established minimum value of the aggregate index of 0.3525, we conclude that in the first 3 years of the analysis, the group achieved satisfactory performance, and in 2013 it decreased significantly, rising again towards the end of the analysed range, without exceeding the minimum performance limit aggregate index.

Table 2. Engie Group Financial Performance Assessment (2010-2015) - Aggregate Index AI

No.	Variable name	2010	2011	2012	2013	2014	2015
1.	Quick ratio	0,2044	0,2691	0,2347	0,2098	0,2181	0,2269
2.	Long-term solvency ratio	0,0275	-0,0032	0,0155	-0,1657	-0,0176	0,0424
3.	Financial independence ratio	0,0496	0,0131	0,0928	-0,0923	0,0927	0,0662
4.	Return on assets	-0,0911	-0,3409	-0,3066	-0,4297	-0,3404	-0,2667

5.	Return on equity	0,3582	0,3663	0,1701	0,2213	0,2226	0,1970
6.	Total asset turnover	0,3965	0,1609	0,4272	-0,5406	0,3410	0,3922
	Aggregate index AI	**0,4105**	**0,3713**	**0,3671**	**0,1511**	**0,2946**	**0,3411**

Source: Made by the authors based on data extracted from the Amadeus database

According to the results obtained with the Conan & Holder model (Table 3), the Engie Group in 2010 and 2011 has a probability of a bankruptcy risk of less than 10%, but in the next 3 years the situation is changing, having a probability of a bankruptcy risk of 65% -90%. In the last year of analysis, the bankruptcy risk declines considerably, with Engie's situation being a very good one.

Table 3. Engie Group Financial Performance Assessment (2010-2015) – Conan & Holder model

No.	Variable name	2010	2011	2012	2013	2014	2015
1.	R_1	0,0648	0,0172	0,1203	-0,1065	0,1118	0,0842
2.	R_2	0,7727	1,0198	0,9295	0,7657	0,7832	0,8371
3.	R_3	0,2597	0,3467	0,2957	0,2334	0,2542	0,2802
4.	R_4	0,0586	0,0710	0,3244	0,2422	0,5805	0,0927
5.	R_5	0,0816	0,1100	0,0473	0,0987	0,2274	0,0811
	Z Conan & Holder	**0,1679**	**0,2112**	**-0,0063**	**-0,0403**	**-0,2880**	**0,1604**

Source: Made by the authors based on data extracted from the Amadeus database

According to Conan & Holder model, we can see that, as with the aggregate index, in 3 years the Engie group had a lower bankruptcy risk, so better performance, and in three years it was noted by a poor performance (high probability of a bankruptcy risk) highlighting the fact that the contradictory results between the two models were obtained only for the years 2012 and 2015. Consequently, we consider that we can take into account this aggregate index when analysing the correlation between the structure and the cost of capital and the financial performance, considering that in the 4 years the two models show the same firm classification, and for the whole analysed interval we find that both models fit the Engie group in 3 years as being performing.

Table 4 shows the information used to calculate the weighted average cost of capital and its components and the calculation of the capital structure for the Engie Group over the period 2010-2015. Please note that similar tables and calculations were made for each Engie company (which can be provided as additional files), with the results of the 10 companies being shown in figures 1-3.

Table 4. Determining the financial structure and WACC of the Engie Group (2010-2015)

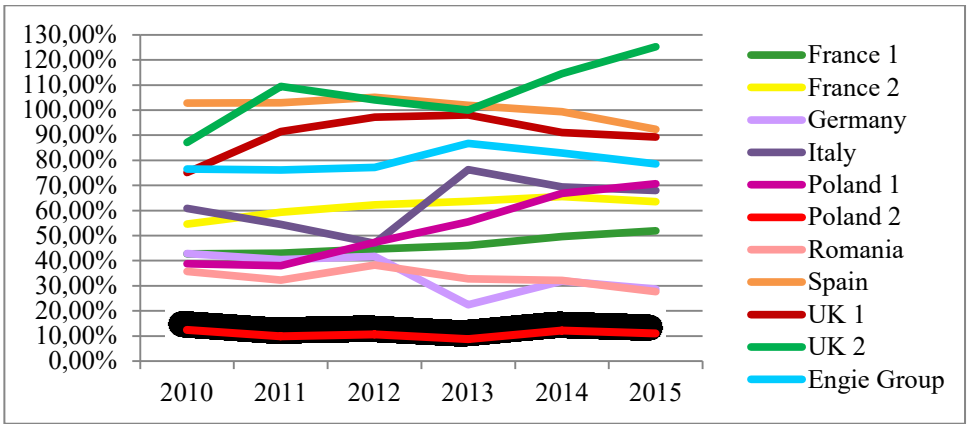
No.	Variable name	2010	2011	2012	2013	2014	2015
1.	Number of shares	380.363.920	328.384.738	272.940.717	118.881.541	148.450.907	180.755.742
2.	Nominal value of a share	1	1	1	1	1	1
3.	Dividends distributed	662.358	636.045	239.477	231.277	226.765	230.613
4.	Dividends distributed per share (Dv/share)	1,50	1,50	1,50	1,50	1,17	1,00
5.	Constant Dv growth rate (d_1)	0,0000%	0,0000%	0,0000%	0,0000%	-4,8478%	-6,5345%
6.	Return on capital employed (r=Net income/Capital employed)	2,79%	-0,28%	1,57%	-16,55%	-1,74%	4,27%
7.	Net income	45.308.138	-3.831.490	18.720.126	-148.420.691	-15.072.513	36.077.978
8.	Capital employed	1.623.592.706	1.380.245.232	1.193.025.011	896.958.286	867.947.222	845.870.350
9.	The reinvested earnings rate b=(Net income-Dv)/Net income)	98,5381%	116,6005%	98,7207%	100,1558%	101,5045%	99,3608%
10.	Constant Dv growth rate (d_2=r*b)	2,7498%	-0,3237%	1,5491%	-16,5729%	-1,7627%	4,2379%
11.	Constant Dv growth rate: d=(d_1+d_2)/2	1,37%	-0,16%	0,77%	-8,29%	-3,31%	-1,15%
12.	Current value of a stock (Vs)	26,7678	24,1857	21,2859	17,3629	17,6892	18,164
13.	Stock yield rate (Dv/Vs)	5,6037%	6,2020%	7,0469%	8,6391%	6,6142%	5,5054%
14.	**Cost of equity**	**7,06%**	**6,03%**	**7,88%**	**-0,36%**	**3,09%**	**4,29%**
15.	Value of the interest (Int)	33.909.918	34.330.956	33.966.571	29.046.058	23.267.835	15.051.929
16.	Non-current and current financial	1.243.228.786	1.051.860.494	920.084.295	778.076.745	719.496.315	665.114.608

No.	Variable name	2010	2011	2012	2013	2014	2015
	liabilities						
17.	Profit tax rate (t)	34,40%	36,10%	36,10%	38,00%	38,00%	38,00%
18.	**Cost of debt**	**1,79%**	**2,09%**	**2,36%**	**2,31%**	**2,01%**	**1,40%**
19.	**Capital structure**	**76,57%**	**76,21%**	**77,12%**	**86,75%**	**82,90%**	**78,63%**
20.	**WACC**	**2,55%**	**3,02%**	**3,62%**	**1,96%**	**2,19%**	**2,02%**
21.	**Aggregate Index (AI)**	**0,4105**	**0,3713**	**0,3671**	**0,1511**	**0,2946**	**0,3411**
22.	**Z Conan & Holder**	**0,1679**	**0,2112**	**-0,0063**	**0,0403**	**-0,2880**	**0,1604**

Source: Made by the authors based on data extracted from the Amadeus and Bloomberg database

Analyzing the structure of Engie's capital, we can see that it is predominantly indebted, with debts of between 76.21% in 2011 and 86.75% in 2013 of total assets. In general, the financial theory is confirmed, meaning that the Engie group has the lowest WACC in 2013 of 1.96%, when the financial structure is the most indebted (86.75%). At the same time, this year the financial performance according to AI is the lowest (0.1511), which is in line with the theories of the financial structure regarding information asymmetry, the pecking order theory and the dynamic trade-off theory of the capital structure. These theories and the negative relationship between performance and indebtedness are also confirmed by the Z Conan & Holder score showing the highest performance in 2011 of 0.2112 when the leverage ratio is the lowest (76.21%) and the WACC almost the highest (3.02%).

As far as firms are concerned, we observe the same relationships as in the case of the group. For France 1 and 2, the highest performance for the two models (AI=0.5994, Z=0.3402 and AI=0.5234, Z=0.2059) is obtained when the capital structure is the least indebted (42.77% and 54.65% respectively) and the WACC is minimal (5% and 19.25% respectively), which confirms the negative relationship between the capital structure and the company's performance. We see a much higher WACC and lower performance in France 2 compared to France 1.

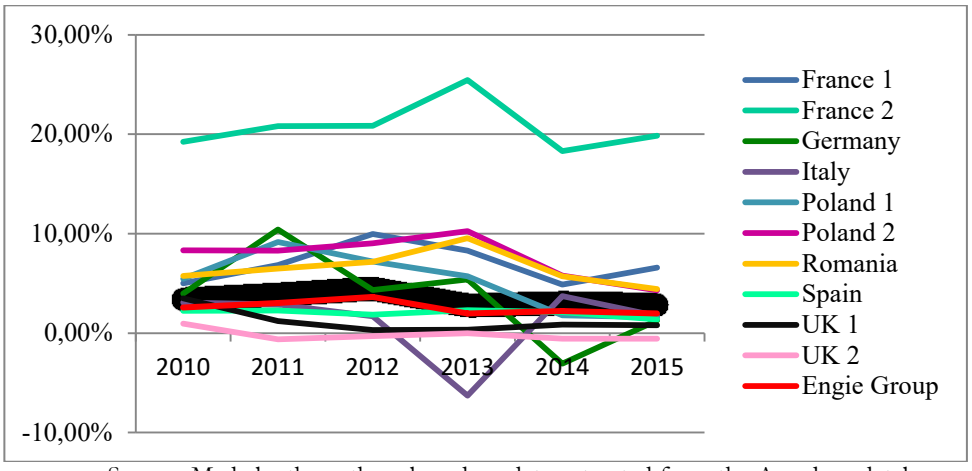


Source: Made by the authors based on data extracted from the Amadeus database

Figure 1. Capital structure

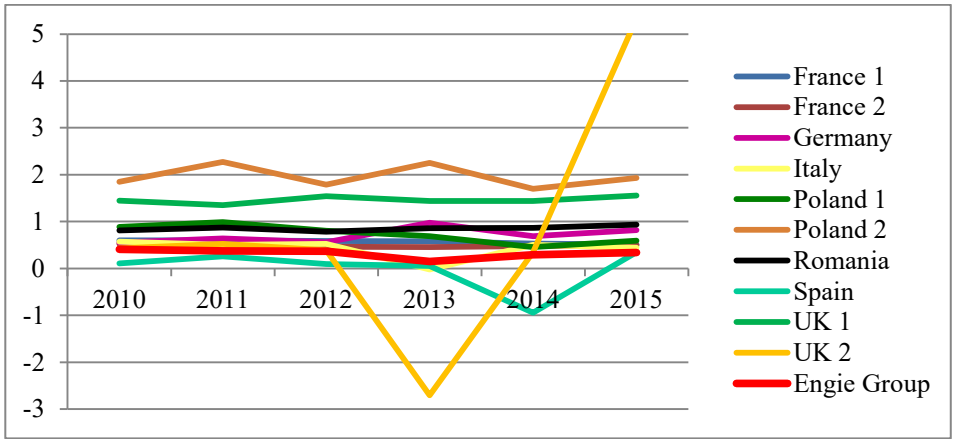
In the case of the German firm, the highest performance for the two models in 2013 (AI=0.9735, Z=0.8797) is obtained when the capital structure is the least indebted (22.41%) and WACC is 5.39%. In Italy, the company performs the weakest performance according to both models (AI=-0,0253, Z=-0,5060) when the capital structure is the most indebted (76,25%) and WACC is the lowest (-6,28%). The negative relationship between the capital structure and the firm's performance is also confirmed in this case. A special situation is encountered with the German firm in 2014 and Italy in 2013, when WACC is negative due to the negative dividend growth rate.

For Poland 1 and 2, the highest performance in both models (AI=0.9855, Z=0.6012 and AI=2.2534, Z=2.7303) is achieved in 2011 and 2013 respectively, when the capital structure is the least indebted (38.08% and 8.72% respectively) and the WACC is the maximum (9.17% and 10.24% respectively), which confirms the negative relationship between the capital structure and company performance. We observe a much more unlevered capital structure and a much higher performance in Poland 2 than in Poland 1.



Source: Made by the authors based on data extracted from the Amadeus database

Figure 2. Weighted average cost of capital (WACC)



Source: Made by the authors based on data extracted from the Amadeus database

Figure 3. The aggregate AI index

For companies in Romania and Spain, the highest performance for the two models (AI=0.9365, Z=0.7993 and AI=0.3489, Z=0.1802) is obtained in 2015 when the capital structure is the least indebted (27.75% and 92.38%) and the WACC is the lowest (4.44% and 1.39%), which confirms the negative relationship between the capital structure and the company performance. We see a very indebted capital structure in the case of Spain, in the period 2010-2013, the equity being negative.

The case of UK companies is more atypical in that it does not verify the relationships encountered with previous firms, but only partially: for the United Kingdom 1, the maximum performance represented by Z=0,3287 is

obtained in 2010 when the financial structure is the lowest (75.14%) and WACC is the highest (3.49%), while for the United Kingdom 2, the maximum performance by AI score=0.3299 is obtained in 2015 when the financial structure is maximum (125, 24%) and WACC is minimal (-0.57%).

6. Conclusions

From the study we can conclude that the negative relation between the capital structure and the financial performance is confirmed both for the Engie group and for the companies within the group, with the exception of the UK 2 firm which shows a positive relationship, the maximum performance being recorded when equity was negative. The reversed relationship between the capital structure and the company's performance shows that the most performing firms are those that mainly use their own capital. Companies that use most of their equity are those in Poland 2, Romania and the UK 1, while Spain and the UK 2 are the most indebted ones with their own negative capital in most of the analysed years. Also, both in the companies and at the group level, it is noticed that the debts have a lower cost than their equity, but the debt ratio is high, as the leverage increases, the WACC increases.

Regarding the capital structure and WACC, a unified relationship could not be observed, in the sense that in some companies and at the level of the Engie group in general the maximum performance is recorded when the WACC is the maximum and the minimum financial structure (Poland 1 and 2, Great Britain 1) while for other firms the maximum financial performance is obtained when WACC is minimal and the minimum financial structure (France 1 and 2, Romania, Spain, Italy). But both at group level and at most companies in the group, the theories regarding information asymmetry, pecking order and dynamic trade-off of the financial structure are confirmed.

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