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*National and international financial system offers companies a wide range of funding sources. The choice of one or more of the available sources and their combination are major aspects of the company's financing policy. Managers must keep in mind that the call to one or other of potential funding sources is not a minor and independent decision, but has profound implications on the company's value. Weighted average cost of capital can be used as the discount rate or the selection of investment projects.*

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## **1. Introduction**

Financing policy at microeconomic level is significantly influenced by how the economic mechanisms function at regional, national and even global. Romania is characterized by a relatively unstable socio-economic situation and, which raises serious toll on the business results of Romanian companies, irrespective of quality management at the microeconomic level. Considering the specifics of economic and financial environment in the context of analysis of the influence these areas have on the the finance decision at microeconomic level, one cannot ignore elements such as inflation, changes in interest rates or exchange rate in economy<sup>341</sup>.

Although these macroeconomic factors are especially useful for the substantiation of policy finance companies, there are other factors that influence financing policy, factors related to the company's internal environment. Taking into account these observations, and various other related to financing policies, we may wonder why some sectors of the activity tend to have companies with a high rate of borrowing compared to other sectors. But analyzing the role of the financial lever, the cost sources of funding or fees paid by the company, we can explain these changes in borrowing rates, and how the company's value is affected by the financing policy.<sup>342</sup> Among these factors, we consider the cost of financing sources as the primary factor in foundation financing policy, having the greatest impact on company results and hence on its value.

Financing policy, which underpins the company's capital formation, is mostly assumed by the company's management and less by the "providers" of capital (shareholders, creditors). This can be achieved in two ways: internal financing and external financing. But each of these sources implies a specific cost to achieve them, cost which the manager should know, considering also the indirect implications of choosing one or other of these financing arrangements.

<sup>341</sup> Oprean Camelia, *An analyses of Romanian companies financing decision under macroeconomic influences*, MPRA Paper No 14716, 2008.

<sup>342</sup> Fabozzi F., Drake Pamela, *Finance. Capital Markets, Financial Management and Investment Management*, John Wiley & Sons, Inc, New Jersey, 2009.

## 2. The cost of financing sources – essential factor of company policy

Due to its crucial role in all production factors, capital has a privileged position in all theoretical approaches aimed by business activity<sup>343</sup>. So, we can appreciate the capital as all funding sources available to the company that can be used to purchase all the elements of the asset<sup>344</sup>. Considering the source of the company's capital is composed primarily of two components: equity and debt.

### 2.3.1 The cost of equity – determination methods

Equity cost represents the rate of return required by shareholders is the company to pay for their investment in the company. If the rate of return is lower than the opportunity cost, then the business value decreases, and if the rate of return is higher than the opportunity cost, then the business value increases. The rate of return expected by shareholders is an opportunity cost based on expected return of investors to invest the same risk. In the absence of resale transactions of existing shares, shareholders will earn dividends only. If the future flow of dividends is known, the discount rate that equales the present value of dividends by the current price action will be the required rate of return for investors. The difficulty of the model lies in determining the exact level of future dividends. Therefore, research in the field tried to find ways of estimating this rate of return expected by investors, which the most significant are presented in the following table:

Table 1

*Methods for determining the cost of equity*

Crt. Nr.	Method	Formula
1	Gordon-Shapiro Model	$k_e = \frac{D_1}{V_0} + g \quad (1)$ <p>: <math>\frac{D_1}{V_0}</math> = the dividend yield per share  g = the growth rate of dividend per share.</p>
2	Model of determining by PER (market capitalization ratio)	$PER = \frac{1}{Rrf} = \frac{1}{k_e} \quad (4) \quad k_e = \frac{d * (1 + g)}{V_t / EPS_t} + g \quad (5)$ <p>: d – dividend rate  EPS<sub>t</sub> – earnings per share at time t  V<sub>t</sub>/EPS<sub>t</sub> = PER<sub>t</sub></p>
3	Capital Asset Pricing Model (CAPM)	$k_e = Rf + \beta * [E(\bar{R}) - Rf] \quad (6)$ <p>: Rf – risk-free interest rate  β – Title volatility, systematic risk expression relative to market portfolio  E(<math>\bar{R}</math>) – expected return on market portfolio</p>
4	Arbitrage Pricing Theory Model (APT)	$k_e = Rf + \sum_{k=1}^K b_{ik} * \bar{\lambda}_{ik} \quad (7)$ <p>: b<sub>ik</sub> – sensitivity coefficient of the company at the risk factor k  <math>\bar{\lambda}_k = \sum_{t=1}^T \lambda_{kt}</math> - average risk premium in the period under review</p>

<sup>343</sup> Nistor I., *Teorie și practică în finanțarea întreprinderilor*, Ed. Casa Cărții de Știință, Cluj-Napoca, 2004.

<sup>344</sup> Berceanu D., *Deciziile financiare ale firmei, Ediția a II-a*, Ed. Universitaria, Craiova, 2006.

		<p>T – number of periods analyzed</p> <p><math>Rf = \lambda_{0t}</math> - risk-free rate at time t</p> <p>K – number of risk factors</p>
5	Updated cash flow model, for preferred shares	$V_0 = \sum_{t=1}^n \frac{Div_t}{(1+k_p)^t} = \frac{Div}{k_p} \quad (8)$ <p>: <math>Div_t</math> – forecasted dividend to be distributed for year t  <math>Div_1 = \dots = Div_n = Div = \text{constant}</math>  <math>k_p</math> – cost of capital for preferred shares</p>
6	Rata rentabilității financiare	$Rrf = \frac{\pi_{net}}{Cpr} \quad (10)$ <p>: <math>\pi_{net}</math> – net profit  <math>Cpr</math> – equity value</p>

Source: Processing after Pirtea M., Cristea H., Nicolescu Cristina, Boțoc C., *Managementul financiar al companiei*, Mirton Publishing House, Timișoara, 2010.

### 2.3.2 The cost of lent capital - determination methods

To estimate the cost of borrowed capital can be used two types of methods:

A. A company's exogenous methods such as:

- Negotiations with potential manufacturers;
- Based on market interest rates on loans with similar risk issued instruments;
- Based on actual interest rate subsidy payed by firms in the same sector.

B. A company's endogenous methods:

In addition to exogenous methods, the company can estimate the cost of debt taking into consideration the interest rates on loans issued by the company, called yield to maturity method, YTM. Yield to maturity is the interest rate that would be won by one investor on similar instruments, which bought the title at the current price and that keeps it until maturity.<sup>345</sup> The cost of borrowed capital will increase over the yield to maturity under the impact of administrative costs, the various fees involved with a new issue. In these circumstances, the cost of debt (kd), under the impact of taxation, is given by the following formula:

$$k_d = YTM * (1 - I_\pi) \quad (11)$$

$I_\pi$  – profit tax rate

One of the significant risks that are facing the creditors of companies is the risk of default by the company issuing debt (bankruptcy risk). Effect of bankruptcy risk should be considered in determining the discount rate, but also the expected value of cash-flow analysis of investment project sites. In these circumstances, estimating the expected profitability by the creditors imposes the determination of the payments' sensitivity, depending on the macroeconomic indicators. Therefore, a second method for determining the cost of debt is the CAPM model, which involves calculating the  $\beta$  coefficient for debts:

$$k_{dat,t} = Rf_t + \beta_{dat} * [E(\bar{R}) - Rf_t] \quad (12)$$

unde:  $Rf_t$  – rate of return on a risk-free bond at time t

$E(\bar{R}) - Rf_t$  - risk premium for the market portfolio at time t

<sup>345</sup> Stancu I., *Finanțe*, ediția a IV-a, Ed. Economică, București, 2007.

Using this formula, however, leads to determining the expected value of return to creditors, that is usually different from the actual value. The report of the two values is determined by the risk of non-payment of obligations to creditors and the likelihood of bankruptcy. In case of the two events, then the actual amount will be less than expected value, otherwise being above the expected value.

### 2.3.3 The weighted average cost of capital -influence on the company's financing policy

Choosing a means of funding is determined on the one hand by its cost and secondly by the company's current financial structure.<sup>346</sup> Optimal financial structure corresponds to the minimum cost of used capital, weighted average cost (WAC) being determined using the following relation:

$$WAC = \sum_{i=1}^t w_i * k_i \quad (13)$$

unde:  $w_i$  –shared capital, by the sources of origin  
 $k_i$  -the cost of the  $i$  source of financing  
 $t$  – the number of financing sources

The principle underlying the determination of weighted average cost of capital calculation takes into account the WAC in accordance with how the cash-flows that have to be updated are denominated. For this, the following elements should be considered:

1. The taxation of cash-flows. If these are taxed, then the CPM will be determined after taxation its parts:

$$WAC = k_{debt} * (1 - I_{\pi}) * \frac{Debts}{Total\ capital} + k_e * \frac{Equity}{Total\ capital} \quad (14)$$

2. Using nominal rates, if cash-flows are expressed in nominal sizes.

WAC can be used as discount rate in assessing cash-flows of a company's investment projects . Using WAC as the discount rate is an appropriate valuation method based on updating the sites of future cash flow, because the whole value of the company has invested capital (own or borrowed). Thus, the economic asset value will be given by:

$$V_0 = \sum_{t=1}^n \frac{CF_t}{(1 + WAC)^t} + \frac{VR_n}{(1 + WAC)^n} + V_{ar} \quad (15)$$

unde:  $CF$  – cash-flows of the company, on the three types of activities  
 $V_{ar}$  – value of redundant assets

WAC calculation proves its usefulness also in selecting investment projects, being the minimum threshold below which investors will not accept to fall, representing an investment return required for the company that has an identical risk of the same company as a whole. If the new project has the same risk as a whole company, then WAC can be used in determining the net present value (NPV), as a criterion for selection of investment projects:

$$NPV = \sum_{t=1}^n \frac{CF_t}{(1 + WAC)^t} - I_0 \quad (16)$$

unde:  $I_0$  – value of initial investment

<sup>346</sup> Pirtea M., Cristea H., Nicolescu Cristina, Boțoc C., *Managementul financiar al companiei*, Ed. Mirton, Timișoara, 2010.

$CF_t$  – annual forecast cash-flows forecast, after tax.

If the investment project has a different risk than the company's, then the discount rate of cash flow may differ from the value of the company's WAC. In this case, the CAPM model is recommended for determining the discount rate, in which the right SML (Security Market Line) is the geometrical point of all updated rates of investments, proportionally to the risk adjusted to the rates of investment.

### **3. Creating value – effect of the company's decisions**

Intelligent investment decisions make the shareholders richer. For example, if a company can borrow 8%, when the interest rate is 9%, then it can be said that the company manager did a good deed for shareholders.

Unfortunately, this is easier to be said than done. The problem is that financial markets competition is more intense than in most product markets. On product markets, generally, businesses can find competitive advantages that allow positive NPV investments. For example, a company may have only a few competitors who specialize in the same line of business and in the same geographical area. Or can be able to seize the patent, technology or on the recognition and customer loyalty. All these offer the opportunity to obtain higher profits and to find positive NPV projects<sup>347</sup>.

But there are few protected niche in the financial markets and you can not patent issuance of new securities. In addition, you are facing on these markets always a fast-moving competition, including all other companies seeking capital, not even considering the state, the local administrations, the financial institutions, the foreign and individuals companies ranging from New York, Tokyo or London funding. Investors who have a surplus capital are many and intelligent. Most likely, these investors assess the value of securities at least as well as issuers.

Of course, when a company calls to loans, it wants that the borrowed resources to cost less than market interest rate. But if the loan is a good deal for shareholders, it must be a bad deal for creditors. So there is a dilemma linked to how a company is likely to deceive investors constantly forcing them to pay a surcharge for the securities issued. The answer is very obvious, very small, generally companies should assume that they issue securities which are sold at true value.

But the real value is a slippery potential expression, the actual final value does not mean future value, because differences may occur between predictions and the actual recorded level (we do not expect investors to be observers by chance). Fair value reflects a price which includes all current information available to investors on an efficient capital market, all securities being valued at a fair price. In such circumstances, the sale of securities at market price can never be a positive NPV transaction

### **4. Conclusions**

Funding sources must be selected in accordance with the objectives to finance and economic environment in which it operates. Also, the company's financial strategy must always follow the indicators "net income per share", "gross dividend per share" or realistic "net dividend per share" because any investor bases his investment decisions according to actual earnings.

For a capital investment to be justified, the profitability of invested resources must at least equal the same risk return investment alternatives, and we formulate the idea that the cost of capital is an opportunity cost.

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<sup>347</sup> Brealey R., Myers S., Marcus A., *Fundamentals of corporate finance*, 5<sup>th</sup> Edition, McGraw Hill/Irwin Publishing House, New York, USA, 2007.

If WAC analysis is performed in terms of business, then we are talking in terms of cost that you must pay for dispende sources of funding. But analysis can be performed from the perspective of investors who wish to obtain a certain gain from their investment in the company, and then talk in terms of profitability.

All these hypotheses argues that it is hard to win or lose based on funding strategies, either smart or stupid. It is difficult to win, which means finding cheap sources for funding, because investors demand fair market conditions. At the same time, it's hard to lose, because competition among investors prevent any of them, in terms of requirements, rather than reasonable conditions.

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