# VALUE CHARACTERISTICS AND STRUCTURE OF THE SOURCES FOR FINANCING THE ACTIVITIES OF THE FIRM

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**Abstract**

*Each business activity is subject to three main factors of production - natural resources, labor resources and capital. Their use is related to the costs that the company carries out to attract them. Their significance can be assessed differently, depending on the assessment positions - by the state, the company, the owners, etc. From the position of the company, the role of financial resources is dominant, which determines the responsibilities of the financial manager for their formation, the possibilities and the capabilities for their mobilization. The use of one or another source of financing is related to the periodic costs of the company - payment of dividends, interest, etc. In the majority of the cases, funds resources are not free, so "source value" is essential. The aim of the current paper is to review the value characteristics and the structure of the main sources for financing the activities of the firm.*

**Key words:** *balance sheet, WACC, valuation*

## INTRODUCTION

Each business activity is subject to three main factors of production - natural resources, labor resources and capital. Their use is related to the costs that the company carries out to attract them. Their significance can be assessed differently, depending on the assessment positions - by the state, the company, the owners, etc. From the position of the company, the role of the financial resources is dominant, which determines the responsibilities of the financial manager for their formation, the opportunities and the capabilities for their mobilization. The use of one or another source of financing is related to the periodic costs of the company - payment of dividends, interest, etc.

Also, it must not be forgotten, that the past few decades brought tremendous changes in the way business operates, and this is especially important with regards to the environmental challenges which are practically reshaping the environment in which business operates [1, p. 617]. Zhelyazkova highlights that assessing the environmental impact of a company's activities requires a number of changes in the way information is provided in the annual financial statements [2, p. 117, 118]. We are here simply mentioning these problem, and are not going to deal with these latest specificities with regards to the compilation of financial reports but will rather focus on a number of conventional, established understandings as to the importance of the variety of sources of funding for the firm as well as of its valuation.

## IMPORTANCE OF FUNDING SOURCES FOR THE FIRM

In the majority of cases, resources are not free, so "source value" is essential. The value of the funding source is determined by the amount that should be regularly paid for the attracted resources, expressed as a percentage. As the costs of interest are treated differently from tax regulators, it appears that attracting the same amount of funds but from different sources may cost the company differently. For example, the cost of capital, measured as share capital and bank credit, is shown, respectively, through the dividend and the level of the interest rate. As most countries are allowed to include interest on borrowed funds in current expenditure, in order to reduce taxable profits, and dividends are paid out of net profit after tax, it is clear that the equity capital source is more expensive than the bank credit source. Ideally, turnover assets are funded at the expense of short-term sources, and the underlying assets from long-term sources. Payments on attracted long-term funding sources should be made over

a prolonged period of time. Thus, from the company's point of view, the essence of the concept of "value of capital" as a level of regular costs for the company is particularly important.

The concepts of "value" and "capital", viewed separately, have another, idiosyncratic interpretation. The value (cost) of capital is a rate (interest) reflecting its cost of ownership. As far as the choice between the terms "price" and "value" is concerned, they can be used interchangeably. For example, the term "value of capital" could be used when it comes to the future of planning, when capital is not attracted. Where capital is attracted and costs are known, the use of the concept of "cost of capital" as a characteristic of the capital is fully permissible.

The concept of capital value is one of the basics in the theory of capital. It is not limited to calculating the relative magnitude of payments to be transferred to its owners providing financial resources but also characterizing the level of profitability of the invested capital that the firm must provide in order not to reduce its market value . Determining the value of capital is not an end in itself, because:

First, this indicator characterizes the company's activity in the long run, and secondly, the weighted average value of the company's capital is one of the key indicators in the formation of the capital investment budget. Each company is usually funded by several sources. Since the value of each source is different, the company's capital value is calculated by the arithmetic weighted average. The indicator is calculated in percentages and, as a rule, annual data are used. The main complexity is in calculating the value of the capital received from a particular source. For some sources, this is easy (for example, for bank credit), and for others it is difficult, where accurate calculation is generally not possible. However, even an approximation of the value of the capital of the company is useful both for the comparative analysis of the effectiveness of the advances in its activity and for the implementation of its own investment policy. Dimitrov rightly underlines that (though in the context of pension administrating companies, however the principle is applicable to all), when evaluating a company, it is vital to take into account not only financial quantitative indicators but also quality performance of its operations [3, pp. 136, 137]. Elsewhere the same author Dimitrov stresses that both quality and quantity factors are influencing the financial performance and the evaluation of a company [4, pp. 232-260, 270-296]. Further in another publication Dimitrov rightly points out to the need for review financial efficiency in all its applications not only as a numeric value but to analyze it in broader terms [5, p. 98].

The financial manager should know the value of the company's capital for a number of reasons:

- First, the value of equity represents the result of the return on the resources invested by investors and can be used to determine the market valuation of equity and to predict the possible change in the company's share prices depending on the change in expected changes of profits and dividends. Here we need to stress, as Asenov points out, that the “distribution of false or misleading information can have significant impact on the prices of financial instruments” [6, 39] so the validity and clarity of company data is of key significance. In this respect it is important to clarify what fraud is. As Asenov explains in another place, it is “associated with all actions that suggest intentional misleading for mercenary motives and for the purpose to gain advantage or to obtain unlawfully certain benefits” [7, p. 14].;
- Second, the value of the borrowed funds is associated with the interest paid, so the best of several options for raising capital should be chosen;
- Third, maximizing the market value of a firm as a key management task is achieved under the influence of a number of factors, for example, at the expense of maximizing the value of all sources used;
- Fourth, the value of capital is one of the key factors in analyzing investment projects.

For the calculation of the weighted average capital of the company, it is necessary to analyze the five major sources of capital:

- bank credit;

- bond loans;
- share capital in preferred stock;
- share capital in the form of common stock;
- reinvested earnings (own funds).

Each of these sources has a different value, but the logic of its formation is the same and, in its most general form, it can be described with the well-known pattern of equilibrium between demand and supply of financial resources of a given type.

Under capital market equilibrium, the value of sources is determined by the interaction of market counterparties. The greater the supply of capital of a given type, the less its price. Demand is opposed to supply, i.e. the greater the demand for financial resources of a given type, the greater its price. The value of the capital is determined by the intersection of these two states at that time. If the economy, for example, is in an inflationary state or non-market mechanisms, instruments and constraints are playing significant role on it, the value of a given source may be distorted (out of market logic).

Each company finances its business, including investment, from various sources. For the financial resources used, it pays interest, dividends, fees, generally holds any reasonable costs to maintain its economic potential. As mentioned, each source has its value (price) as the relative magnitude (percentage) of the regular cost of providing the source. It is impossible to give a correct correlation between the meanings of the values of the sources, since in real conditions any deviations, depending on the external situation and on the efficiency of the company itself, are possible.

Nevertheless, the logic and consistency of the procedures for attracting funding sources should be understood and taken into account. In addition, some ratios, from theoretical point of view, are fully justified. For example, it is obvious that the value of own funds should be greater than the value of the borrowed funds, as the relative costs of maintaining the latter are most often fixed and paid out with priority over dividends, that is, they are less risky, and the lower risk should correspond to a lower yield, which coincides, in the case at hand, with the value of the source.

Even in a sustainable, balanced economy, the company's financing system is not permanent, especially at the start-up stage. However, in the process of stabilizing the activities, on the scale of production, the relationships with the counterparties, a certain structure of sources optimal for the given business and the particular firm is formed.

## THE WEIGHTED AVERAGE COST OF CAPITAL AS KEY FIRM VALUE INDICATOR

The indicator which characterizes the relative level of the total amount of the regular costs of maintaining the structure (optimal, targeted, etc.) of the capital, invested in the company's activity, relative to the total volume of attracted funds and expressed in terms of the annual interest rate, characterizes the value of the capital invested in the company's business and is determined as a weighted average cost of capital (WACC). The weighted average reflects the minimum return on the capital employed and its profitability and is calculated on a weighted average.

This indicator is approximate, with accuracy not only not achievable, but also unlikely, as WACC is primarily used to make strategic decisions. For example, this indicator compares the IRR (internal profit rule) value of the investment project that considers the feasibility of the realization.

Concerning the WACC, several clarifications should be made:

**First.** The meaning of calculating WACC, as well as the value of each source of capital, is not in the assessment of its meanings, but rather in determining the value of the newly attracted monetary resources, as the main purpose of the WACC is to use it as a discounting factor in composing the budget for investment (capital expenditure).

**Second.** The WACC meanings constitute relatively stable magnitude and reflect the optimal structure of capital. In this case, the term "optimal" should be understood with some conditionality, as it often has a forced character. The owners and management of the firm may wish to change the structure of the sources of capital, however, due to certain objective and subjective factors this might not be possible.

**Third.** There are two approaches to the choice of the share (s) - they are made on the basis of market assessments of capital components or balance sheet estimates.

**Fourth.** The accuracy of the WACC estimates depends on how much the value of the capital of individual sources is calculated. Insofar as an estimate is used, it is acceptable for analytical purposes. It is only undisputed that, under other equal conditions, the reduction of WACC helps to increase the value of the market value of the company.

**Fifth.** Formally, long-term funding sources can be identified, their value measured, and the WACC meanings calculated. However, in practice most often they are limited to two generalized sources - own and borrowed capital.

**Sixth.** The correctness of the WACC estimate implies that the value of some sources should be determined up to and after the tax calculations. The logic of quantitative assessments should be seen from the position of the company's owners, as they (or their managers) take the decisions, including in terms of capital structures, so as to increase wealth.

All quantitative assessments should be considered by the top executives of the firm in the context of acting in line with the interests of the company's owners, as taking any serious financial decision is related to them. That is why the comparability of individual sources of capital is achieved through the use of indicators calculated on a post-tax basis.

When analyzing investment projects, the use of WACC as a discounting factor is possible if new and existing investments are equally risky and financed by different sources that are typical for financing the investment activity in a given company. Frequently, attracting additional sources of funding leads to a change in the level of financial risk for the company as a whole, and, consequently, to a change in WACC meanings. Not only the internal conditions in the company's business, but also the external conjuncture of the financial market affect this indicator. Changing interest rates also changes the share of the capital invested by shareholders, which affects WACC.

Notwithstanding these caveats, the WACC is considered by the theory to be the most acceptable benchmark for marginal costs of attracting new sources of funding, provided that new projects have the same level of production and financial risk. In addition, WACC can be used to assess the company's market value.

So far, the logic of evaluating the value of the company's capital in the context of the formed financial structure was tracked. In fact, evaluation is much more important in perspective. For example, it can be used to answer the question: if the company wishes to mobilize funds for the realization of a large investment project, how much will it cost? As Asenov highlights, in the current dynamic world it is of increasing importance to evaluate an array of factors which affect its development and to come up with assessments and forecasts with different time span [8, p. 15]. Only thus the financial managers will be prepared to face the various challenges they meet.

One of the key categories in the economy is marginal costs, which are understood as costs for the next product unit. Their magnitude depends on many factors that can be identified and evaluated using algorithms and models of some degree of complexity. One of the factors that cannot be evaluated is professionalism, as a rule, growing with the development of the company and the concomitant increase in production volumes. The relationship between relative labor costs (dependent variable) and production volume in natural units (independent variable) is considered a learning curve. The effect of this curve is closely related to the returns on scale principle when the increase in production volumes is accompanied by a rise in the efficiency of the firm's financial and business activity. Research has shown that when doubling the volume of production, relative labor costs are usually reduced at a constant rate of 10-40%.

With increased volumes of production, relative and consequently marginal costs are declining, but this decline cannot be endless. With the accumulation of production and technological expertise and stabilization, the company's activity achieves a certain optimal level of production, and when it increases marginal costs start to increase. One reason is the increase in management costs. The logic of marginal cost changes also applies to the value of the capital invested. The weighted average capital value of an existing source structure is an estimate based on historical data. But the value of individual sources, as well as the structure of capital, is constantly changing. Therefore, the weighted average cost of capital is not a permanent value. It changes over time and is under the influence of a number of factors.

Marginal Cost of Capital (MCC) is calculated on the basis of cost estimates that the firm will be forced to make to increase the volume of investments taking into account the existing stock market conditions. The estimated capital value, which will be marginal, may differ materially from the current value, i.e. of its current stock market price.

Consequently, the relative cost of attracting new resources changes non-linearly. For example, if the cost of attracting 50 workers is 25 euro per person, it drops to 20 euros in case the workers are 500. The same logic is applied when we consider the attraction of financial resources, in which the value of the capital can change in any direction - depending on the volume of the attracted funds. The capital limit may remain constant, however, when reaching a certain critical volume of attracted funds, the structure of sources - WACC is sharply increasing.

It can be assumed that in a stable company with an established system of financing the weighted average capital value (WACC) remains constant, with a certain variation in the volume of resources invested, and when it reaches a certain limit, it increases. Thus, the marginal value of capital becomes a function of the volume of financial resources involved.

Typically, the logic of the investment process connects the satisfaction of the company's needs to increase production potential at the expense of reinvestment of profit, mobilization of internal sources, leading to asset restructuring. In such cases, the structure of funding sources does not change. However, if the investment opportunities and the company's needs are high, it tries to attract external sources. This leads to changes in the structure of sources, in particular, to an increase in the share of borrowed capital, i.e. to an increase in financial risk.

It is worth highlighting some circumstances:

**First.** The analysis of the ratios of capital cost from different sources shows that long-term loan capital appears to be relatively cheaper than other sources. Therefore, at first glance, it seems strange that receiving a bank loan can lead to a WACC growth. But another credit should be considered not in isolation, but in the context of the existing conditions, for example, the capital structure of the firm on the day of its receipt, the prospects for profitability in its business in the future and the associated opportunity for timely repayment of the loan. The bank's lending conditions may differ materially depending on the share of attracted funds - 10% or 90% - in the structure of sources of capital for the firm. Here, the level of financial risk that increases with the growth of the share of borrowed capital is of great importance. Risk augmentation explains the increase in WACC value in this case.

**Second.** WACC has a stable meaning with a certain optimal capital structure, implied as a defined ratio between own and borrowed capital. When reinvesting profits, the share of own funds increases, so the principle of preserving the optimal capital structure gives the firm the opportunity (at least theoretical) to attract a certain amount of financial resources from external sources under acceptable conditions corresponding to the previously formed capital structure. Thus, the total volume of additional financial resources, the involvement in the investment process of which does not lead to an increase in the weighted average of the capital, is more than the amount of the reinvested earnings.

**Third,** purely theoretically, the marginal cost of capital (MCC) may have several positions of mismatch depending on the degree of resource gradation, how the concept of profit is treated, and what the current tax system is. For example, it is theoretically possible to distinguish such funding sources as share capital in the form of preferred or common stock, the deferral of tax payments arising

from the differences in the calculation of the profit for tax purposes and the provision of the profit to the owners of the company, and others.

**Structure of company capital**

In the theory of financial management the two structures differ - financial structure and structure of the company's capital.

The financial structure includes the way to finance the company's business as a whole, i.e. the structure of all sources of resources, including short-term ones. The structure of the company's capital refers to a narrower part of the sources of funds - the long-term liabilities (of own and borrowed capital). Own and borrowed sources of funds differ in a number of features, the more important of which are shown in the table below.

**Table 1.** Differences among the main sources of funding for the company

| **Characteristic** | **Own Capital** | **Attracted Capital** |
|---|---|---|
| Right to participate in management | Yes | No |
| Right to obtain a share of the profit | Partially | First in line |
| Expected profitability | Varies | Usually predefined |
| Term of return | Unclear | Clearly defined in the contract |
| Comparative value of the source | More expenses | Cheaper |
| Tax privileges | No | Yes |

The capital structure obviously has a direct impact on the results of the firm's financial and business activity and, indirectly, in terms of owners and creditors, that is, on the magnitude of capital. If the impact on profit is more or less explicable (some borrowed funds reduce taxed profits), things are different as far as the second dependency is concerned.

The ratio between own and borrowed capital characterizes the level of financial risk for the company. The risk is closely related to the level of the yield, i.e. to the return on capital employed. Increasing the share of borrowed capital (as cheaper) also characterizes the increase in risk for the company, which is naturally related to the expectation of increased profitability. The change in profitability immediately results in a change in the valuation of the respective financial asset (shares, bonds), which also affects the market value of the issuer.

The company's assessment and, most importantly, the dynamics of this assessment are crucial indicators of the sustainability of its profitable business and its prospects for existence. It is possible to obtain an assessment in different ways, but it is easiest to use the company's balance sheet as the balance sheet provides a generalized financial model for the firm. The problem is that it is usually compiled at so-called historical prices, and therefore does not show the magnitude of the market value of the firm. The balance can also be compiled using market assessments, but this is usually done on a liquidation balance when liquidating assets at current market prices.

Therefore, the value of the firm in market and balance sheet estimates, as a rule, is significantly different.

The main property of the balance sheet is that assets and liabilities, as well as their changes, are equivalent. A certain complexity in their interpretation occurs only in the case of the presentation of the balance in market valuation. There are no particular problems when the starting point of the analysis is the market valuation of the assets. If this estimate exceeds the carrying amount (or less), the difference can be traded as a notional gain (or loss). This difference increases (decreases) equity, i.e. is included in the balance sheet liability.

Interpretation is more complex when it comes to market valuation of liabilities, which is a purely analytical operation on capital markets. In this case, the difference between the market valuations of assets and liabilities characterizes the goodwill (positive or negative). Its economic meaning is based on the value assessment of what the company has achieved by the time of the valuation of its intangible assets (trademark, patents - developed and not shown, teamwork, etc.). Ceteris paribus, the greater the value of the positive goodwill, the more valuable the company is.

## CONCLUSION

Evaluation of the various sources of financing for the firm needs to take place within the current world economic context. As Zlatinov stresses, "globalization of commercial and financial flows has paved the way for the new digital revolution that is to challenge the traditional production methods and use of production factors." [9]. These challenges are normally translating into increasing volatility of the environment in which firms operate.

The above analysis leads to the following inferences in a nutshell:

**First.** Any professional reflection on valuation of the firm implies a clear understanding of the economic and legal nature of the concept by which it operates. The company should be assessed differently depending on the position from which this is being done (owners, investors, creditors).

**Second.** The value of the company should not be confused with the valuation (accounting or market) of the company's assets. The difference in approaches depends on the position of the assessors - top managers or owners.

**Third.** The exclusive conditionality of the concept of "market price" should be taken into account in the context of the company's valuation. Market capitalization as an objective assessment of the value of the firm is objective only when the prerequisite for a continuously successful company is in place.

**Fourth.** The valuation of the firm or its assets is formally linked to its balance sheet. Therefore, understanding the logic and economic content of the balance sheet is one of the necessary elements of the professional knowledge that every businessman, economist, financier should possess.

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