

FACTORS AFFECTING THE ENTERPRISE'S COST OF CAPITAL IN UKRAINE

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Reducing the cost of capital is one of the main tasks of financial management of any enterprise. Because of dynamism of market conditions, the economic situation in the country, the existing requirements of the legislation, the volume, structure, cost of financial resources of the enterprise fall under the influence of various factors. The goal of this article is to analyze the specific features of the influence of different factors on the weighted average cost of capital in Ukraine as a basis for development of methods for its reducing. Investigation of factors that influence on the company's financial resources was carried out in the directions determined by the classical formula of the weighted average cost of capital (WACC), estimation of the cost of net assets' attracting (CAPM model). Special attention was paid to the analysis of the domestic legislative base concerning the permitted forms of business organization in Ukraine, requirements for the emission and dividend policy of the enterprise, size of its registered, reserve capital, share of net assets in financial resources. Based on the statistical data of domestic business entities, their ownership structure, sources of financing, specific features of the economic sector's influence were analyzed. As a result, the prevalence of corporate enterprises in Ukraine was revealed, which is connected with relatively low costs and favorable conditions for establishment and registration. As part of the analysis of the financial resources' structure high level of dependence from debts, the popularity of commercial credit, negative effect of financial leverage were found at the Ukrainian enterprises. The features of the economic sector of enterprise were analyzed, that determine the volume of capital investments for creation and development, duration of the operational cycle, seasonality, operating and investment activities, the level of profitability, which affect the volume, structure, cost of the capital of business entity.

Keywords: net assets, loan capital, cost of capital, taxation, dividends, economic sector.

Reducerea costului capitalului este una dintre principalele sarcini ale managementului financiar al oric rei întreprinderi. Datorit condițiilor dinamice de piață , situației economice din țar , cerințelor actuale ale legislației, volumul, structura, costul resurselor financiare ale întreprinderii nimeresc sub influența diferitor factori. Scopul acestui studiu este de a analiza caracteristicile influenței diver ilor factori asupra costului mediu ponderat al capitalului în Ucraina ca baz pentru elaborarea metodelor de reducere a acestuia în continuare. Cercetarea factorilor de influen asupra resurselor financiare ale întreprinderii a fost realizat conform formulei clasice a costului mediu ponderat al capitalului (WACC) i evaluarea costului de atragere a activelor nete (modelul CAPM). În cadrul acestui studiu, o atenție deosebit a fost acordat analizei bazei legislative interne cu privire la formele de organizare a afacerilor permise în Ucraina, cerin ele politicii de emisie i dividende a întreprinderii, m rimea capitalului de rezerv înregistrat, cota activelor nete în resursele financiare. În baza datelor statistice ale entit ilor economice interne a fost analizat structura propriet ii lor, sursele de finan are i particularit ile de influen a sectorului economic. Ca rezultat, a fost determinat prevalența întreprinderilor corporative în Ucraina, care este asociat cu cheltuieli relativ minore și condiții favorabile pentru înfiin are i înregistrare. În cadrul analizei structurii resurselor financiare ale întreprinderilor din Ucraina a fost determinat nivelul sporit al dependenței de datorii, popularitatea creditului comercial, efectul negativ de levier financiar. Sunt analizate particularit ile economice ale întreprinderii, care condi ioneaz volumul investi iilor de capital pentru creare i dezvoltare, durata ciclului opera ional, sezonalitatea, raportul dintre activit ile opera ionale i investi ionale, nivelul rentabilit ii, care influen eaz asupra valorii, structurii i costului de capital al unei entit și economice.

Cuvinte-cheie: active nete, capital de împrumut, cost de capital, impozitare, dividende, ramur .

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(WACC), ().

JEL Classification: D24, E22, G32, H21.
UDC: 336.647/.648(477)

Introduction. Formation of financial resources from own or borrowed sources connected with various costs for their involvement and as a result should provide a certain level of income to investors (owners or creditors). Thus, the weighted average cost of capital of any business entity will be determined by the amount of internal or external financing, correlation between them and their respective value.

Reducing the cost of capital is one of the head tasks of financial management in the market economy as a criterion of business entity's effectiveness, which determines the feasibility of investment in enterprise, its competitiveness and positive impacts on the business price.

The problem of financial resources' formation, assessment of their value is examined in concepts of F. Modigliani and M. Miller, G. Donaldson, theories of static compromise and asymmetric information. Considering the various aspects of the problem the qualitative and quantitative impact of the structure of financial sources on the cost of equity and loan capital, the cost of the enterprise as a whole are evaluated in these approaches

At present stage the problem of capital valuation, besides equity, is important among scientists of the world. Determining it on basis of CAPM-model, along with traditional factors, they add a risk factor of the country where business is located as an investment object. Scientists define country risk premium with the help of credit default swaps (A. Damodaran), credit rating of country, risk of transferring money through countries (M. P. Horn, H. Emmel, M. Schmidt, S. Gatzler).

Despite of defined list of factors in the literature which influence the cost of capital, searching the ways of its reducing remains an important issue for any company. Decreasing the cost of capital is a complex problem. The factors show their influence differently in a given situation (country, enterprise). The conditions of market economy are dynamic generating new risks for the growth of the weighted average cost of capital of business entity at the macro and micro level.

In this context, the aim of this research is to analyze the influence of different factors on the weighted average cost of capital in Ukraine as a basis for the development of methods to decrease it.

Factors forming cost of equity's attracting at the enterprise. According to the classical formula, the weighted average cost of capital (WACC) is determined by the volume of attracted financial

resources, the ratio between owned and borrowed funds and their cost.

One of the main types of financial resources, especially of newly established company, is equity, attraction cost of which is counted by WACC. There are different approaches to determine the cost of equity.

Traditionally, the cost of net assets is calculated by the level of dividends, required by owners that form the share capital, and by costs of emission of the corporate rights.

Modern scientists observe this issue more broadly. Counting the cost of equity basing on CAPM-model, they include the yield on risk-free investments in the capital market (the minimum level of income in case of investing in assets with minimal risk); average income from investments in the market and β -coefficient, which describes the enterprise in which investments are made, besides the level of its operational and financial risk.

Ukrainian scientists determine the need to include the risk of default in the cost of equity's attracting by domestic enterprises, because of its possibility in emerging markets [1].

The cost of equity is determined considering the risk premium of the country, where object of investments is located. Many scientists at this stage calculate this kind of premium taking into account government USD bonds, credit default swaps of the USA and country where investments are made (A.Damodaran) [2]. M. P. Horn, H. Emmel, M. Schmidt, S. Gatzler include the risk of transferring money through countries, credit rating of the country, access to capital markets, susceptibility of investment to political risk, importance of the investment for the investing company [2].

It seems that there is no contradiction between the existing concepts, they complement each other. All these factors in any way determine the level of income that require future owners from investments in the company.

However, it is important to note the following points, which are not paid attention or which were not clearly represented in scientific approaches of assessing the cost of capital, besides equity.

The part of equity is a registered capital – fixed in the statutes amount of contributions from owners. The cost of its involvement depends on the ownership and forms of business organization. The way of creation and formation of the registered capital in Ukraine determines the unitary and corporate type of enterprise.

The unitary enterprise is established by one founder (owner), who solves the major issues concerning the management, income distribution, formation of the personnel, reorganization, etc. In this case, the costs of business registration and organization are minimal. Such entity registers business in the form of private enterprise with no requirements for initial and reserved capital, which operates on the basis of the statute [3].

Corporate enterprises (cooperatives, business partnerships) are established by several persons, so there is need for additional coordination of conditions for joint activities, size and structure of the registered capital, terms and procedure of its formation, changes of contributions of every participant that recorded in the founding treaty [3]. This type of business organization certainly needs more costs for registration procedures and the formation of net assets.

The statistics of the quantitative distribution of entities by different forms of business organization in Ukraine is arguing for corporate enterprises. On 01.02.2017 private enterprises (unitary) make up 17% of all business entities of Ukraine and corporate enterprises, including cooperatives, limited liability and additional liability companies, general and limited partnerships – 47% [4].

Unlike other business partnerships, founding of the stock-joint company always is connected with the emission of securities – shares. Under national legislation [5] this procedure is accompanied by registration moments and cooperation with the National Securities and Stock Market Commission, preparing an emission prospectus, bringing into compliance the management system, concluding agreements with owners. The emission procedure is accompanied the costs for publication and disclosure of relevant information to future investors, conclusion of contracts with the underwriter, depository, payment of state duty and other transaction costs.

Each of these preparatory stages requires financing.

The type of securities' placement – private (through determined group of shareholders) or public (through stock exchange) affects directly on the cost of registered capital attracting. In addition, requirements for the size of the minimum share capital of the company are established that is 1250 minimum wages in Ukraine [6]. On 01.01.2017 this amount reaches 4 millions UAH, which must be formed at the date of registration. The activity of stock-joint company is accompanied by serious

requirements for reporting, dividend policy and mandatory annual audit. Perhaps it causes low share of such type of business among entities of Ukraine – 1.3% [4].

Low capitalization, limited investment opportunities in the domestic stock market lead to transition of Ukrainian business in the international exchanges, besides the Warsaw Stock Exchange. Such domestic companies in sphere of production and processing of agricultural products are presented on this stock exchange: AGROTON PUBLIC LIMITED, ASTARTA HOLDING N.V., INDUSTRIAL MILK COMPANY S.A., KERNEL HOLDING S.A., KSG AGRO S.A., MILKILAND N.V., OVOSTAR UNION N.V. [7].

IPO on the international stock exchanges requires additional costs for the transition to international accounting standards and financial reporting standards, preparation of emission prospectus, payment of marketing services, services of intermediaries. The enterprise must be characterized by positive credit history holding as minimum capitalization at least 15 millions Euro [8].

Experts note that the preparatory procedures for the IPO could take up to two years and require 2-3 millions USD in case of expected amount of the received financial resources – 100 millions USD. These costs do not include spending for the placement of securities [9].

Taking into account such level of costs for registered capital formation, IPO can be done only by large, prospective and financially stable companies.

The influence of dividends' level on the cost of equity. Despite of business organization's form, future owners will expect dividends. Except factors, noted above, which determine their level, the important point is stage of the life cycle of the company. Typically, in phase of the business establishment, access to market, accumulation of production capacity, the company is able to provide a conservative dividend policy due to the lack of financial resources for payments to shareholders or reinvesting the profits for needs of the enterprise.

However, in countries with developed stock markets, where there is competition between enterprises for investment capital, an important factor is the level of dividends that are offered by other companies with similar risk. Thus, issuers, even on the early stages of the life cycle are forced to implement an aggressive dividend policy with annually increasing income for the investor. This policy often does not depend on the financial results and creates a financial burden for the company.

The cost of equity's attracting is influenced by the level of taxation of paid dividends. Toward the national legislation, the issuing company must pay the advance payment of income tax in the amount for 18% of the dividends. For shareholders the received dividends create the duty to pay military fee 1.5% and personal tax income 5% (common shares) and 18% (preferred shares) [10]. There are some legal restrictions for the form and possibilities of dividend payments, besides joint stock company.

In certain cases, it can lead to the relevant decision of the investor to buy, demand the desired income level or to reject of corporate rights of the company.

Internal financial resources as part of capital

Calculating the cost of equity for WACC the existing scientific concepts include the value of shares (common or preferred). However, such components as additional and reserve capital, retained earnings are not considered significant. The same is applied for other own financial resources, such as depreciation fund, stable liabilities.

Statistical data of domestic enterprises' activity indicate insignificant role of these financial resources (table 1).

Table 1
Financial resources of large and medium enterprises in Ukraine on 01.01.2016, %

Reserve capital / Registered capital	Additional capital / Net assets	Index of financial autonomy = Equity/ (Equity+ Liabilities)	(Current provision + Deferred income) / (Equity+ Liabilities)	Short-term bank credit / (Equity+ Liabilities)	Long-term liabilities and provisions / (Equity+ Liabilities)	Accounts payable / (Equity+ Liabilities)
3,3	69,5	28,3	0,77	5,6	20	27

Source: Calculated by the author on the basis of statistical data (Economic statistics of activity of Ukrainian enterprises, State Statistics Committee of Ukraine, 2016) [4].

The share of current provisions and deferred incomes (so-called stable liabilities) in financial resources is not even 1%. There is uncovered losses in equity on 01.01.2016, and reserve capital reaches for only 3.3% of registered capital at norm 15-25% for business partnerships.

In turn, additional capital generates 69.5% of net assets of domestic enterprises.

F. Modigliani and M. Miller in their researches noted the possibility of using retained earnings for financing of enterprise, especially when there is a high level of personal taxation of investor's income [11].

The importance of internal financial resources is considered by G. Donaldson in his concept of subordination of sources of capital structure, where the main role belongs to retained earnings and depreciation. Besides, unlike the rest of Ukrainian enterprises, the retained earnings in agriculture reach 68.9% of equity at the beginning of 2016. G. Donaldson proposed to provide a conservative dividend policy to increase the retained earnings for reinvestment. The author assumed that company might attract external sources only in case of the exhaustion of internal funds, in such order: bank loans, debt securities, issue of shares.

That is why the problem of formation, using, evaluation of the internal financial resources, their impact on the WACC requires additional investigation.

Except the cost of equity attracting, WACC is influenced by the amount of the generated net assets. On the one hand, their volume depend on the mentality of the owners or managers of the company that carry out conservative financial policy and do not want to lose control over the firm due to the possible increasing of financial dependence from debts.

On the other hand, there are certain legal requirements for volume of registered capital and other components of net assets of business partnerships in Ukraine. For example, according to the Methodical recommendations of Ministry of Economy in Ukraine one of the signs of insolvency is low share (less than 50%) of equity in property of business entity [12]. It means that on 01.01.2016, the index of financial autonomy in Ukraine is only 28% (table 1). Besides, the gap in this index of different economic sectors is very serious. Thus, the equity of agricultural enterprises is 40% of the financial resources as well as complete financial dependence on debts in trade and construction industry due to the negative net assets [4].

Impact factors on cost of debts' attracting. The existing scientific concepts relate to role of loan capital differently. The concept of Modigliani-Miller emphasizes that the enterprise value is independent of its capital structure. The only difference is in the cost of equity of enterprise that involves debt. The cost of equity of such business entity is bigger on the risk premium than net assets of financially independent company. This risk premium depends on the difference between the cost of equity and debt, as well as the financial leverage of the company. In addition, involving debts, the company receives certain benefits connected with the optimization of tax payments.

Traditional financial theory considers it necessary to determine the optimal value of weighted average cost of capital, which for certain structure and cost of financial resources should be minimal. Thus, there is U-determined relationship between the ratio of debt to equity and index of WACC.

The static compromise theory believes that the increasing of financial leverage shoulder leads to financial risk growing that makes the market value of the company falling down.

Despite of the equity's cost, the possibility of its formation, successful development of the business in the market economy is almost impossible without attracting the debts. The need of loans is a result of the providing of favorable credit policy of customers, seasonality and cycles in business, peculiarities of technology of production and sales. These lead to a lack of cash inflows, make impossible the timely financing of operational activity and threat further development of the company.

The advantage of attracting debts is so-called tax shield. Payments of interest rate by loans, bonds, unlike dividends, are the financial costs for the company, which as a result reduce income tax. For example, the interest rate of loans provided in the national currency to non-financial corporations in february 2017 in Ukraine is 15.6% [13]. Thus, taking into account the tax shield, the interest rate will be 12.79%¹.

¹ $15,6\% \cdot (1 - 0,18) = 12,79\%$, where 0,18 (18%) is the rate of income tax in Ukraine.

Moreover, the effect of financial leverage allows to increase return on equity, attracting loan capital. The effect of financial leverage, calculated on the basis of statistical data of the domestic enterprises, unfortunately, is negative because the gross return on assets does not exceed the interest rate on loans (table 2).

Table 2

The effect of financial leverage of large and medium enterprises in Ukraine on 01.01.2016

Coefficient of gross return on assets, %	Interest rate, % ¹	Coefficient of gross return on assets – Interest rate
13.34	17.67	- 4,33

Source: Calculated by the author on the basis of statistical data (*Economic statistics of activity of Ukrainian enterprises, State Statistics Committee of Ukraine, 2016*) [4].

The high level of interest rates and the cost of attracting bank loans in Ukraine lead to their insignificant share in the property of business. The share of short-term bank loans in the property of domestic enterprises is 5.6%, long-term liabilities – 20% (table 1). This, besides, determines the popularity of commercial credit.

Influence of economic sector's features on financial resources. One of the main factors which affects the amount, structure, cost of financial resources, including debts, is the economic sector, where enterprise operates.

Industrial features of the enterprise determine the amount of capital investments required for the establishment and development, characteristics of the technological process and sales, including the duration of the production and operational cycles, the balance between operating and investing activities, the level of profitability. In a way, they identify the level of operational and financial risks of the enterprise of any economic sector.

Previous researches allow revealing the following features of enterprises in sphere of material production: industry, agriculture, construction and trade [16]. Industrial enterprises are stationary, characterized by a strong technological base. They need for relevant labor resources, raw materials and infrastructure. The main condition for the development of industrial enterprises is implementing innovative technologies.

The seasonal nature of agriculture is accompanied by production processes which are long, often urgent and fall under the impact of unexpected weather conditions.

Production of construction industry requires an individual approach to the customer, taking into account the current requirements for quality of buildings, is characterized by preparatory procedures connected with budgeting, obtaining permits, researching the territory of the construction, etc.

These aspects are not critical for trade enterprises, which are distinguished by high degree of mobility compared to the rest of the economical sectors. It explains their significant share in the quantity and volume of sales of Ukrainian business entities. Trade does not require big capital investments for beginning and development of activity. In this case, the most capital intensive concerning investments in tangible and intangible assets is industry. The share of such assets in the property of industrial enterprises is 44% compared with the trade sector – 7.6% [17].

The production cycle of trade enterprises, providing the role of intermediaries, is much shorter than in industry, construction and agriculture. The duration of the operating cycle directly influences the rhythm and amounts of cash inflows, which determines the investment activity of enterprises. For example, the share of long-term and short-term financial investments in property of trade companies is 14.37%, comparing with agriculture – 5.24% or industry 3.24% [17].

These features form a different proportion of fixed and current assets of the companies as well as the structure of their financial resources. The continued payback period of fixed assets requires long-term financing by own or borrowed capital. Sources of current assets' financing can be working capital, commercial credit, short-term bank credit, stable liabilities.

¹ Interest rates on new loans, given to non-financial corporations by types of activity in december 2015 [14].

Seasonality of a business makes it necessary to reserve funds, involve the credit lines for immediate production operations. Therefore, such type of financing as cooperation, leasing, insurance, various government support are important, for example, in capital structure of agricultural enterprises.

The correlation between financial resources – the policy of fixed and current assets' financing – determines the cost of capital. Low share of equity and debt's structure of the Ukrainian enterprises on 01.01.2016 lead to aggressive policy of financing, which is a threat of default for companies in those economic sectors which are characterized by long operating cycle. This problem is very important, considering the level of losses of domestic enterprises. Thus, optimization of the current assets' size, increasing of capital productivity of non-current assets are the ways to reduce the cost of capital.

The role of commercial credit and alternative sources of financing in capital structure's formation. Insignificant amounts of internal financial resources, inaccessibility and high cost of bank loans increase the role of commercial credit in the liabilities of the company. On 01.01.2016 account payables are 27% of the financial resources of domestic enterprises (table 1). Besides, in trade sector they are 49%.

The absence of cost for attracting makes commercial credit so popular in the country. But providing the favorable credit policy for customers leads to decreasing of current assets' liquidity. The term of repayment of account receivables is often twice longer than production cycle of enterprise [18]. Low cost of commercial credit does not directly affect the weighted average cost of capital, but such situation causes the disruption of financial stability, and therefore the falling of business value.

The existing scientific concepts calculate the cost of debt capital as part of WACC, traditionally using bank credits and bond loans. But there are wide spread alternative sources of financing at this stage in the world, including factoring, franchising, leasing, etc. They are cheap and have favourable conditions to attract and resolve specific problems faced by business entities. In the case of factoring, it provides an opportunity to solve problems with accounts receivable, speed up capital turnover, rhythm of production and sales. Leasing promotes the financing of fixed assets and reduces the cost of their services.

Each alternative source of non-bank crediting has its value, and the problem of their integration into the formula of WACC, determining their influence on the cost of capital of the company remains important.

Results and Conclusions. The provided research gave an opportunity to identify the main factors which affect the cost of capital of Ukrainian companies. The absence of the registered capital requirements, low costs for the foundation, the type of owners' responsibility determine the prevalence of the business organization's form in type of limited partnership in Ukraine. The insignificant percentage of stock-joint companies in amount of business entities is connected with large size of minimum contributions of owners required at the time of registration, the costs of securities' emission, agreements with various intermediaries, IPO on international stock exchanges.

Forming financial resources through equity, the company must take into account the level of dividends' taxation in the country. Due to the certain conditions, company-issuer has to pay 18% from paid dividends in Ukraine.

Statistical data of domestic enterprises indicate minor role of internal financial resources. Growing of uncovered losses, absence of reserves, provisions cause financial dependence of Ukrainian business entities from debts.

Involvement of debts, which in theory should lead to tax shield and increasing of return on equity at the company, unfortunately, in Ukraine does not provide such effect. On the one hand, the differential of financial leverage of domestic firms is negative, on the other hand – free of charge commercial credit (accounts payable) reaches the third, and in some economic sectors half of the resources.

Sectoral features of enterprises determine the amount of capital investments for creation and development, duration of the operating cycle, seasonality, the operating and investing activities. Thus, the most prevalent by the number and volume of sales trade enterprises are characterized by low share of tangible and intangible assets in property compared to capital-intensive industrial companies. Short operating cycle, rhythm of cash inflows promote active investing operations. The share of financial investments in assets of trade enterprises is 3 times higher than in agriculture and 4 times in industry. This affects the size, structure and cost of business entity.

The received results give a basis for more detailed investigation of the impact of mentioned factors on the cost of financial resources of the business entity and development of the ways to reduce costs of attraction of net assets and liabilities in further researches.

