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Efficiency of Enterprises Transformation

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Abstract: The article discusses the effectiveness of the formation of large business organizations that are created on the basis of modernization and as a result of global competition; investigate transformation, as a category of relations between subjects of microeconomics. Presents methods for predicting costs during companies' transformation process, on the Gordon's model. Analyzes the dynamics and structure of the dividends for the main sectors of the economy and provides the price of a debt capital. Provides method of decision-making to the implementation of the projects (A, B, C) and formed an optimal financial and investment policies. Examines the main steps for determining the optimal capital budget in the transformation. Analyzes the key financial indicators by which predicted the most favorable moment for inter-structural changes. In order to identify the most effective compared dividend and basic microeconomic pricing models for planned acquisitions, sales and other changes. Proposed final variants of calculation of "transformation effect".

Key words: Enterprise transformation · Assessment efficiency of projects · Factors of transformation of enterprises · Methods of valuation cost enterprise · Financial Indicators of target companies · Capital budget · Cost of capital.

INTRODUCTION

Evaluation of the effectiveness of the formation of large corporate structures for Russian entrepreneurs is a vital problem. Integrated formation turned out to be the only institution that can accumulate financial flows necessary for investment and re-distribution of property through the direct purchase of assets in case of transformation of enterprises.

Recognition of big business as the most important subject of the national modernization and global competitiveness as a necessary part of economic strategy of the state.[1] To enhance the process of transformation of enterprises should be exercised within the framework of the joint decisions of representatives of the government and business groups, which in other countries has received the name of "big deal". This, in our opinion, is the strategic task of Russian government and business.

In modern economic literature there is a wide variety of motives and factors of transformation of enterprises [2]. One of the most important motives for this is their growth. To create large structures gives the means by which a company can quickly grow. Often the only alternative to it, the slower growth through internal expansion. [3] However, competitive factors and the lack of investment resources can lead to inefficiency of internal growth, which is especially important for Russia.

The main part. Large organizations may acquire the company's counting on achieving economic win. However, the achievement of synergies, as you know, much is uncertain and risky. Other economic winnings may be the result of economies of scale or economies of scope. Economy of scale is to reduce the cost per unit of production, which occurs if the size of the production activity of the company in terms of revenue or of output increases. Savings from coverage occurs when the company can offer its customers a wider range of services [4].

Some of these winnings characterize motives horizontal or vertical transformations. Horizontal deals represent a fusion of competitors and the vertical occur between buyer and seller of raw materials or products.

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Although it is believed that sometimes cause horizontal structural changes is to the power of the monopolies, research in this area do not confirm this claim. Vertical transactions sometimes provide valuable benefits, but sometimes produce unintended negative consequences.

Other winnings may take the form of financial benefits, when a large company, resulting connection of two or more firms have better access to capital markets. This access may be manifested in a lower cost of capital. However, the economic motive is the subject of considerable debate among financiers. Its importance and validity are still questioned and requires additional research [5,6].

Another motivation for the creation of large structures can take the form of improving governance. Buy the company believes it is possible to pay the premium due to the fact that it predicts a win, which will reach when will apply their more skilled managerial skills to the business of the company, which is the purpose. On the other hand, the buyer may mistakenly assume that would obtain higher profits than that the market can be extracted from the new structure. The motivation can serve as arrogance, instead of objective analysis. These last two motives are examples invariably present human factor, which is thoroughly imbued with this business. Ideally, a thorough analysis should not supplanted by personal motives of governors. However, the human factor cannot be underestimated, as it is an important part of the world of the formation of large companies.

In large companies there are other motives, such as acceleration of R & D acquisition of companies with high achievements in this area. Other companies may have good distribution system, which makes them attractive. Motives there are many and they may vary from deal to deal.

Actively debated role of taxes as a factor of structures transformation. Some researchers believe that it is important only in a relatively small number of transactions, while others believe that this role is significant. [7] Doubtless considered to be a mere necessity of more careful analysis of the forthcoming enlargement of firms. In fact, as is shown by the research, European analysts, excessively rapid growth of many companies is the harbinger of their imminent bankruptcy. When assessing the costs and efficiency of operations on the transformation of the company it is necessary to analyze a multitude of financial documents, to hold a significant number of settlements on the substantiation of the decisions on the matter. The analysis should do all firms (and seller and buyer). Buyer need to establish the value of the goal to determine the adequate supply price and the compliance of the acquired company financial standards. In turn, seller should know how much his company.

Methods of forecasting the costs and efficiency of transformation of companies range from simple and straightforward to the highly sophisticated and complex econometric models, using statistical tools for the analysis of economic and financial variables.[8] General principle the choice between simple and complex techniques is the use to produce the forecast simpler and less expensive tools. This problem often becomes actual, if the analyst is not very versed in the complex methodologies and benefits derived from their use is not always clear.

One of the most commonly used methods is the Gordon [9] model for evaluation of shares, based on dividend payments (Gordon Stock Dividend Valuation Model). This model determines the value of the ordinary shares based on the current value of the dividends to be received from the ownership of the security. A theoretical value of a common share of the company at an initial (conditionally) can be expressed as follows:

$$P_0 = \frac{D_1}{(1+K_S)^1} + \frac{D_2}{(1+K_S)^2} +,\ldots,+ \frac{D_\infty}{(1+K_S)^\infty} \quad (1)$$

where:

P_0 = Theoretical price of the shares at the initial time 0;
D_i = dividend for the period i;
k_s = capitalization rate for ordinary shares of the company.

One of the first questions arising from the equality (formula 1), is: what will be equal dividends from D_1 to D_n? Presumably, the dividends will grow as a result of the influence of inflation and growth of profits of the company. The exact dividend valuation model shares should reflect this growth. This process could be simplified by assuming that dividends are growing at a constant rate. This assumption is valid if the historical data indicate a certain growth rate of dividends that can be seen from the recent history of the company. Model with a constant rate of growth is often called simply the Gordon model. Such growth rate (g) may be embedded in the formula as follows:

$$P_0 = \frac{D_o(1+g)}{(1+K_S)^1} + \frac{D_o(1+g)2}{(1+K_S)^2} +,\ldots,+ \frac{D_o(1+g)^\infty}{(1+K_S)^\infty} \quad (2)$$

Table 1: The structure of the dividend payments to the major sectors of the economy

Industry	Dividend payments ($ million)				The share of industry in total amount of paid dividends (%)	The growth of payments in 2000-2012 (times)
	2000 year	2005 year	2010 year	2012 year		
Oil and gas	504	1142	2309	3543	83,9	7
including Gazprom and Rosneft	107	343	1410	1837	43,5	17,2
Telecommunications	22	24	34	191	4,5	8,5
Chemistry and petrochemistry	19	25	10	32	0,8	1,7
Electric power industry	52	98	127	192	4,5	3,7
Food industry	13	14	44	51	1,2	4,1
Transport	2	4	6	14	0,3	8,2
Nonferrous metallurgy	16	0	160	154	3,7	9,9
Ferrous metallurgy	0,5	50	23	52	1,2	110
Engineering	6	7	28	18	0,4	3,1

The equality of 2 can be simplified:

$$P_0 = \frac{D_1}{K_S - g} \quad (3)$$

Expression 3 will give the correct values for the P_0, provided that the rate of return k_s more than the growth rate of g. The growth rate of dividends may be determined by consideration of a reasonable historical period, for example the last 10 years. The average annual growth rate can be defined as follows:

$$D_{11} = D_1(1+g)^{10} \quad (4)$$

Converting this expression (formula 4), we obtain g:

$$g = \sqrt[1]{\frac{D_{11}}{D_1} - 1} \quad (5)$$

Despite the convenience, the Gordon model in the analysis for the purposes of transformation of enterprises should not be dominant, as it limits the inherent simplifying assumptions. Also a serious drawback Gordon model is that it considers only a small number of factors. Meanwhile, may need to go beyond the historical growth rate of dividends and to consider the many other factors affecting the future growth of dividends.

The Gordon model for the dividend valuation of shares is convenient working tool and occupies a central place in most textbooks in corporate finance.[9] However, it should be noted that the concept itself Gordon model to a certain extent, is in contradiction with the recommendations of the financial management techniques for determination of the dividend payments. They preference is given to determining the size of dividends according to the residual principle, after the formation of the capital budget and the allocation of the remaining profits. Another method is to maintain a constant share of dividend payments of distributable profits. Recommended extra dividend payments in case of successful financial-economic activity the company, not giving them regular character to receive them not in the habit of shareholders and investors. In any case the character of this model does not meet the practice of dividend policy of Russian companies.

In the modern period, changes in dividend policy of the enterprises: from 2000 to 2012 year volume of dividend payments on some industries increased more than tenfold. In 2012, the rate of their growth, judging by expert estimates and official statements of the companies, not to slow and, according to various forecasts, will amount to 30% (Table 1). There are preconditions to that the growth will not stop and in 2013.[10]

The size of payments and dividend yield of the two largest domestic state monopolies - Gazprom and Rosneft - remain modest. [11] Partly to blame the policy of the state which considers that increase of dividend payments will increase their tariffs and a surge in inflation in the country.

Finally, about 40% of two hundred Russian companies that did not pay dividends. In many industries the growth of dividend payments occurs due to one of two issuers: among transport companies is “Aeroflot”, in food industry - “Baltika”, in nonferrous metallurgy - “Norilsk Nickel”. Many companies are still awareness closed and alien to Western management standards, management is not ready to share the profits with minority shareholders.

Considering the above mentioned negative aspects in the evaluation of stocks on the basis of dividend payments, we offer to use for these purposes indicator of their yield. The latter (yields kv_i) consists not only of dividends and changes in the market value of shares and may be determined with the following formula:

$$kv_i = \frac{D_i + p_i + p_{i-1}}{p_{i-1}} \quad (6)$$

where

D_i = Dividend for the period i;
P_i = Price of a share at the end of the year i.

Using the concept of discounted cash flow and share yield, you can define its theoretical value of the expression:

$$P = \frac{p_0 kv_0}{(1+k_c)^1} + \frac{p_1 kv_1}{(1+k_c)^2} + ... + \frac{p_n kv_n}{(1+k_c)^n} \quad (7)$$

where:

P_0 = Price of the shares at the initial time 0;
kv_i = Return in period i;
$k_ñ$ = Price of the company's capital.

In applying this methodology projected cases of non-payment of dividends or negative rates of return will not be reflected on the objectivity of the calculation.

If we take the growth of the profitability of shares the same, expression (7) can be simplified as follows:

$$P = kv \sum_{i-1}^{n} \frac{p_o (1+kv)^i}{(1+k_c)^i} \quad (8)$$

where

k_v = Yield;
P_0 = Price of the share at the time of purchase.
k_c = Price of capital.

The growth rate of return can also be determined by consideration of a certain historical period. The average annual growth rate can be determined from the following expression:

$$\overline{kv} = \sqrt[n]{kv_1 \times kv_2 \times ... \times kv_n} \quad (9)$$

When determining the adequate discount rate should also assess the riskiness of the company, which may depend on many factors, that may be one of the reasons why the market comes to a completely different assessment of the value of shares.

This approach allows the use of the discount rate to estimate the value of the acquirer's cost of capital ($k_ñ$).

Determination of rates of capital implies the establishment of its major components and to calculate their rates. The main sources of capital of the firm are: borrowed capital, preference shares and equity.

All of them come together in a single figure weighted average cost of capital (WÀÑÑ, Weight Average Cost of Capital), which is determined by the formula:

$$WASS = W_d \times k_d + W_p \times W_s \times k_s \quad (10)$$

W_d, W_P and W_s - share of borrowed capital, preference shares and equity.

k_d, $k_ð$, k_s - the price of the source of loan capital, preference shares and equity;

The price of the borrowed capital is determined by the adjustment of the interest rate on a loan or loan to value rate taxation for the firm.

Price source preferred shares are determined from the ratio of annual dividend and issue price including the cost of accommodation.

The price of the equity is the price of retained earnings until the company has this source and the price of the ordinary shares of the new issue, as soon as this source is exhausted and can be estimated using valuation techniques yield ordinary shares (DCF, CAPM).

WACC is not the average price of all sources of attracted firm in the past and the average price sources in the future.WACC is a weighted average price of each new unit of additional capital growth. Historical WACC, have occurred previously, the cost of capital, has implications for the assessment of earlier adopted decisions. For making decisions on investments are relevant not historical and the marginal cost of attracting new funds sources.

Graphically change in the price of the next ruble again attracted capital can be represented as a line, called the marginal cost of capital (MCC) Marginal Costs of capital) (Figure 1).

The marginal cost of capital is the cost of the last unit of newly attracted firm funds. As the price of additionally attracted funds (for example, through the issuance of new shares) can change the schedule MCC has stepped form. A gap in the graph is the point at which completely exhausted as a source of capital.

To determine the optimal capital budget is plotted investment opportunities (IOS Investment Opportunity Schedule), where the projects are located in the descending order of their internal rate of return and on the X-axis is the amount of necessary funds. Then he incurs schedule marginal cost of capital (Fig. 1).

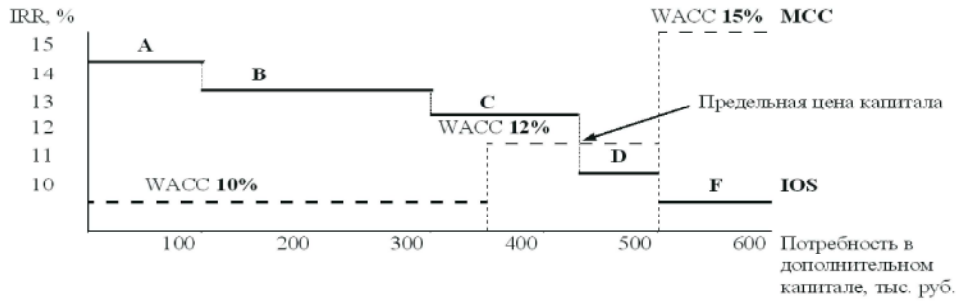

Fig. 1: Optimization graph capital budget

Point of intersection graphs MCC and IOS is called "reference price of a company's capital" and can be used when making decisions on mergers and acquisitions as a guide (kc). All independent projects with yield higher rates of capital should be taken, the other refuse. I.e. the decision on acceptance to the realization of the project (A, B, C) are correct and financial and investment policy - optimal (Figure 1).

It is obvious that when forming the budget of the investment firm, as a rule, should seek to maximize capital growth, scaling-up activities. However, this is not always possible due to the limited investment resources. Therefore in the conditions of optimization policy managers should select the set of projects that maximizes the total value of the NPV and yet is within the established limit of the investment volume.

In practice to determine the optimal capital budget should use the approach based on the principle of expediency. It consists of four stages:

- Graphics-based MSS and a pre-defined budget of investments produced an estimated value k_c company;
- Accounting of capital structure and risk level of the calculated value of k_c increases or decreases;
- Projects inside classified into three groups according to the degree of risk (high, medium, low), the value of k_c is adjusted according to these indicators and is determined by the price of capital for each specific project;
- In the optimal capital budget included independent projects with a positive NPV risk.

The general principle the choice between simple and complex techniques is the use to produce the forecast simpler and less expensive tools. This problem often becomes important if the benefits derived from their use is not always clear.

CONCLUSIONS

As financial indicators buyers can use the following characteristics of company objectives: growing of cash flows and profits; low price relative to the size of the profits; the market value of less than the carrying; high liquidity; low financial leverage.

Growing cash flows and profits. Growing cash flows and profit are the most desirable characteristic. Future cash flows are the most immediate benefit which the buyer extracts from acquisitions. Hence growing the historical trend of these values can be a sign of higher levels in the future.

Low price relative to the size of profit. Low coefficient P/E relative to its levels in the last two to three years suggests that the company is relatively inexpensive. Low coefficient P/E is usually desirable characteristic of the target company. The lower P/E, the lower the price will be paid to acquire the capacity of the target company create income. Due to fluctuations in the market coefficient P/E company or industry group may move up or down. In addition, as the market fluctuates up and down. Drop in the share price, not caused by decreasing the potential profitability of the target company, may constitute a temporary underestimation and a good opportunity to purchase. The buyer is able to measure the degree of underestimation, comparing the coefficient P/E with its levels during the previous three years. Low levels may indicate undervaluation due to changes in the preferences of investors, or it may reflect changes in the company's ability to generate revenue in the future. The lowest for the last three years the rate is a sign that, or the other; and case Analytics decide what it is.

Market value is below carrying value. In some sectors with a more reliable measure of value is the book value. Industries with more liquid assets generally have a more realistic carrying amount. Finance companies and banks are examples of companies that have a large share of the liquid assets. Even in those industries where the assets

are less liquid, for example, companies that have a lot of real estate assets, the carrying value may be used as a minimum.

High liquidity. Liquidity of the target company can be used to facilitate financing of its absorption. A reflection of this condition is high liquidity ratios in comparison with the sector average indicators. Additional liquidity more applicable for acquisitions of the financing of loan capital, where the liquidity of the target company can be an important factor in its ability to pay after the merger of its own purchase.

Low financial leverage. Low coefficient of financial dependence, for example, the debt ratio, or the ratio of debt to equity, is desirable because it shows the low level of risk, as well as additional creditworthiness, which can be used for financing acquisitions. The more cyclical industry, the more important it is to hold the financial lever in the managed framework.

In conclusion, one can say that the tools we considered to assess the effectiveness of investments in the framework of large-scale transformations makes very likely to predict a positive or negative result, as the difference between potential and actual prices of the business after the transformation. When using a method, you must rely on multivariate scenario of development of the market, lying in the estimated model of the growing political and macroeconomic factors, such as currency risks. So that the outcome of the consensus forecast adjust the cost of the hedge of the identified risks and thereby protect transform business structure from significant fluctuations of potential rates on future market value.

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