

each phase of the Project life cycle and after its termination. Besides, the offered model of estimation will expand the base to conduct the comparative analysis of projects that will allow to raise maturity level of project management at the enterprise and to stimulate a particular project team according to the level of the project result achievement of of and its management efficiency in a real-life environment.

The author denotes the following subjects for whom the offered model is: project management team members of; the internal auditor centre of the enterprise (probably a design committee or a control centre of projects); top management representatives to make strategic decisions (especially for standard projects) and the analysis of maturity of level of

project management at the enterprise; design while distributing bonus fund the participants of the project team according to the estimation of the project performance; the expert centre of the enterprise for the analysis of use (working out) of the intellectual property objects in the course of the project performance.

Thus, using developed technique of integral estimate of the project performance allows to carry out the multiple aspect analysis of the project performance taking into account specificity of enterprises. The integral estimate is conducted both concerning the project result, and the project management which allows to expand the possibilities the project approach at the rocket-and-space industry enterprises.

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IMPROVING OF METHODS TO FINANCE INNOVATION ACTIVITIES AT DEFENCE ENTERPRISES AND INDUSTRIAL COMPLEX IN THE FORM OF BONDED DEBT

The article gives the results of problems examination that are connected with estimating the volume of corporate bonded debts. A review of the basic methods to estimate the volume of corporate bonded debts was carried out. There were offered methods of financing innovation activities at defence enterprises and industrial complex in the form of bonded debt including determination of its basic parameters.

Keywords: methods and forms of financing, corporate bonded debt.

According to Conception of Long-term Social and Economic Development of Russian Federation which was accepted by the government up to 2020, it is supposed to form a large group of enterprises which will be active in innovations including enterprises in defence and industrial complex. By 2020 their portion should rise up to 40–50 % (in 2007 their proportion was 13 %). At the same time, the weight of innovative production in the total volume of industrial production should increase up to 25–35 % by 2020 (in 2007 their proportion was 5.5 %).

To solve this problem different methods and forms of financing innovative activities should be widely used with involving private capital. One of the important forms of financing innovation activity is corporate bonded debt. The main peculiarity of this form is that it can be placed among unlimited number of creditors in the same market conditions. Nowadays in Russian Federation more than 95 % of all the issues of corporate bonded debt are the public form of loan (Kraev A. O., Konkov I. N., Maleev P. U. Market of debt securities. 2002).

On the whole, every corporate public bonded debt is defined by several indicators: volume of debt, income paid off, period of capital formation, period of income payment, availability or non-lack of integral option, availability or lack of guaranteeing or other additional rights. This variety of indicators can beget new kinds of bonds. Existing world practice shows that nowadays there are more than 1 500 kinds of bonded debts.

Main indicators among these bonds are the following four: volume, income, period of capital formation, period of income paid off. The rest two indicators are subsidiary and are used in connection with main figures. So, the integral option “put” or “call” according to the period of validity may increase or shorten the period of capital formation. The convert option influences yield of bond because it is supposed to exchange the debt of the joint-stock company to the share in its shareholders’ equity. At the same time, availability of guaranteeing which is given to the enterprise by third person in the form of deposit, guarantee or bail directly influence the volume of borrowing and its yield.

Taking the managerial decision about using bonded debt for investing innovation activities raises the problem of estimating the conditions of borrowing. It influences selection of methods to finance the innovation activity which is carried out in the form of bonded debt. “Volume” is the most important indicator to influence the selection of form to finance innovation activity in the form of bonded debt.

To estimate possible volume of bonded debt companies can use several groups of methods. The first group is “normative methods”. The volume of bonded debt is determined by amount of shareholders’ equity or by the scale of guaranteeing which is given to the company by the third person (deposit, guarantee or bail). The second group determines the volume of borrowing on basis of taking into account joint calculation of enterprise property. The

company's property in fact is the guarantee of paying the debt capital back to the creditor. The third group takes into consideration the company's cash flows. "Cash flow" just as property is guarantee of paying the debt capital back to the creditor. In the forth group there are analogous methods which use multipliers to calculate property and cash-flows of the two companies. At the same time, the first company plans to get loan capital and the second one is an analogous company which already has a loan capital. Here according to the comparison of these companies the volume of loan capital is calculated. The fifth group calculates the volume of bonded debt according to the cost of investment project of the definite company. Practically it is a recommendation for the minimum size of loan capital. The sixth group of methods takes into consideration operating and financial leverage. Their extreme size leads to limiting issue of bonded debt.

To study practices of estimating possible volume of public bonded debt of the company the authors have analyzed issue of the bonds in six industries within the period of 2005–2007. These industries were the leaders of using the bond form of financing in Russian Federation according to the volume of debt capital and number of bond issue. All in all 185 bonded debts of mechanical engineering, power industry, ferrous metallurgy, transport and telecommunications and food industry companies have been analyzed.

While analyzing there revealed two distinct groups of borrowers on the bonded debt market which require different methods of estimating the volume of public bonded debt. The first group consists of the companies that are direct borrowers. They get public loan capital to satisfy their needs. Companies of defence and industrial complex belong to the first group. The second group consists of the companies that are quasi-borrowers. They are subsidiaries which are intermediaries between the creditors and the associated company. Their main aim is to get a loan capital but not the operational activity. According to the data from analyzed industries the share of quasi-borrowers was from 11 to 25 % from total quantity of borrowers in different years.

Analyzing evaluation methods showed that Russian industrial companies used three groups of methods: methods which take into consideration joint calculation of enterprise property, methods which consider cash flow and normative methods. It is important to mention that only direct borrowers used methods which regard property and cash flow of the company in forecasting. Normative methods are used by quasi-borrowers and partially direct borrowers. Methods which constitute 6–29 % of joint calculation of enterprise property make from 16 to 29 % of total number of used methods. Methods which consider cash-flow make from 39 to 47 %, and normative methods make from 25 to 34 %.

The most effective methods to evaluate precisely the volume of corporate bonded debt are normative methods. The volume of the guarantees given to the company indicates the volume of corporate bonded debt. The other methods of evaluation give lower level of accuracy. First of all, it is connected with accuracy in evaluation of property and cash flow of the company.

As a rule, borrowers evaluate of the company property to be deposit with a considerable discount. At the same time the amount of a discount is different to each creditor. As the

result, mortgage value of the property is underestimated in the company which affects potential borrowing abilities of the company. At the same time, creditors calculate the volume of cash flow of the companies according to previous periods with their following extrapolation in the future period. As the result, if earnings of the company in the previous periods were low, it influences potential abilities to get loan capital. Even so, there is a possibility that forecast itself can not be realized.

It confirms the following analysis of the industries. By using the evaluation methods according to joint calculation of enterprise property among direct borrowers 42 % of bonded debts were not supported by property. By using evaluation methods according to cash-flow calculation the same situation among direct borrowers was up to 48 % of situations.

The period of 2005–2007 was relatively stable for the Russian Federation. Gross Domestic Product was constantly growing during this time and there were free financial recourses in the national financial market. Therefore, unendowed bonded debts were placed in the market without troubles. In conditions of the economical crisis such bonded debts can not be placed in the Russian national financial market. Besides, in the period of 2008–2009 there were defaults on unendowed bonded debts.

Therefore, there is a problem to objectively evaluate borrowing abilities in relevance to bonded debt. On the other hand, there is a problem in preventing mistakes in managerial decisions concerning using corporate bonded debts to finance innovation activities. There are main reasons for creation a new methodology of evaluating the potential volume of corporate bonded debts.

At the heart of the new methodology of evaluation the volume of public corporate bonded debts there is a combination of two frequently used methods of estimation (method of taking into account joint calculation of enterprise property and method which takes into consideration company's cash flows). It is important to mention that there is a common principle for both these methods. According to this principle there is a guarantee to the creditor for paying back loan proceeds.

In the offered technology of evaluating the volume of public corporate bonded debts the existing weaknesses of the evaluating methods were minimized. This technology considers assets of the company in aggregate (with the correction coefficients) and average annual income during several years. At the same time, obtained figures are clarified according to the values which are on off-balance accounts. Later on, according to final findings evaluation of the volume of public corporate bonded debts which can get in market conditions is done. Versatile calculation of guaranteeing property potential of the company can raise the accuracy of the volume of public corporate bonded debts evaluation which can attract in market conditions.

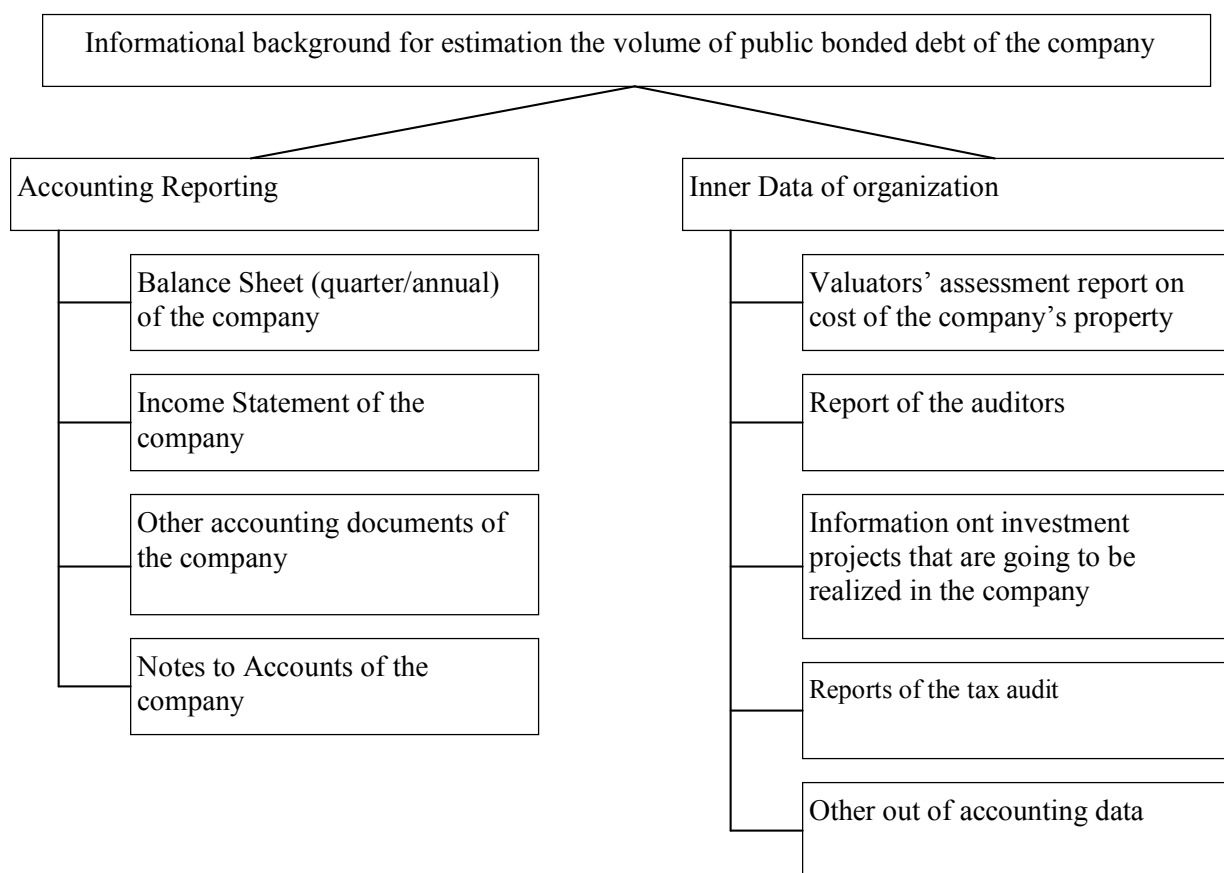
To use the offered methodology of evaluation the definite informational background is needed. The basis of such informational background is two groups of informational sources including accounting reporting of the company and out of accounting data (see the figure). These informational sources can provide necessary data for evaluation according to joint calculation of property and its cash flow.

Testing was carried out to demonstrate effectiveness of the offered evaluation methodology. Testing itself has two stages. At the first stage the volume of public bonded debt was forecasting according to the offered methodology. At the second stage getting evaluation data was compared with actual values of the volume of public bonded debt of the analyzed companies in six industries in the period of 2005–2007. Thereupon, it was determined whether there was a shortage or reserve of possibilities of the volume of public bonded debt attracting in market conditions.

As the result of the comparison the following conclusions were made out. First, during the evaluation of the volume of public bonded debt according to this methodology repayment to creditors was from 69 to 86 % in bonded issues.

In the companies of defence and industrial complex this figure was higher. It was 95 %. Secondly, quality of guaranteeing allows getting additional financial activities more than 100 % from the really obtained activities according to joint calculation of property and cash-flow of the company. In the companies of defence and industrial complex this indicator was 98 %.

This methodology of estimation of the volume of public bonded debt allows companies of defence and industrial complex to estimate precisely its borrowing abilities. It influences taking the right managerial decision when choosing methods of financing innovation activities of the companies of defence and industrial complex in the form of bonded debt.



Structure of informational background to forecast the volume of public bonded debt according to joint calculation of property and cash-flow of the company

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