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MATERIALS

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Economic science

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нужды социальной сферы, тарифы на экспорт. На выходе (эндогенно) определяются ВВП, объемы экспорта и импорта, темп инфляции, расходы населения и конечное потребление. Модель позволяет составлять краткосрочные прогнозы макроэкономических показателей в режиме реального времени, что, бесспорно, является весьма полезным и интересным ее свойством.

Таким образом, представление студентов о возможностях практического применения эконометрических моделей и методов должно быть расширено, и интерес к изучаемому курсу, безусловно, может существенно возрасти, что, в свою очередь, является залогом повышения успеваемости.

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PREDICTION OF ALTMAN'S METHOD

In the economic relations often there are moments when owing to certain reasons some subjects of economic activity appear incapable to pay off according to the obligations. The special institute of insolvency (bankruptcy) of unprofitably working enterprises which along with a freedom of enterprise, a private property is one of necessary elements of any normally functioning market economy is engaged in regulation of such situations.

There are two main approaches to a bankruptcy prediction. The first is based on financial data and includes operating in some coefficients. The second is based on data on the bankrupt enterprises and their comparison with the relevant data of the studied enterprise.

The most known multiple-factor models of forecasting of insolvency of the organization are: Altman's model; Taffler's Model; Fox Model; Model of Chester; Saifullin and Kadykov's five-factorial model; Four-factorial model of Irkutsk GEA.

From methods of forecasting of bankruptcy big distribution was gained by Altman's model (an index of solvency of Altman, Altman's Z-account). This index was constructed by means of the device of the multiplicative discriminant analysis and has an appearance:

$$Z = 1,2* x1 + 1,4*x2 + 3,3*x3 + 0,6*x4 + 0,999*x5 \qquad (1)$$

In Altman's formula five variables are used:

X1 – the relation of working capital to the sum of assets of corporation;

X2 – the relation of the unallotted income to the sum of assets;

X3 – the relation of the operating income (to a deduction of percent and taxes) to the sum of assets;

X4 – the relation of own capital to total amount of assets;

X5 – the relation of an amount of sale to the sum of assets.

The multiplicative discriminant analysis also has an appearance:

Table 1

Scale of probability of bankruptcy

Z-accounts value	Probability of bankruptcy
less than 1,8	the very high
from 1,81 to 2,7	the high
from 2,71 to 2,99	average
from 3,0	the low

For forecasting of bankruptcy of the organization we will use Abyroy 7 LLP data. We will carry out calculation of probability of bankruptcy, calculations it is representable in table 2.

Table 2

Calculation of probability of bankruptcy of Abyroy 7 LLP

| Koef-t	Calculation	Value on			Multiplier	Work (гр. 3 х гр. 4)		
		22010	22011	22012		22010	22011	22012
1	2	3			4	5		
K1	Relation of working capital to the size of all assets	00,43	00,38	00,38	1,2	00,52	00,46	00,46
K2	The relation of retained earnings and funds of special appointment to the size of all assets	00,07	00,12	00,13	1,4	00,10	00,17	00,18
K3	Relation Finn. result from sales to the size of all assets	00,11	00,14	00,06	3,3	00,36	00,46	00,21
K4	Relation of own capital to the loan	00,14	00,17	00,17	0,6	00,10	00,10	00,1
K5	The revenue relation from sales to the size of all assets	11,88	11	00,86	1	11,0	11,00	00,86
Altman's z-score:						22,94	22,19	11,86
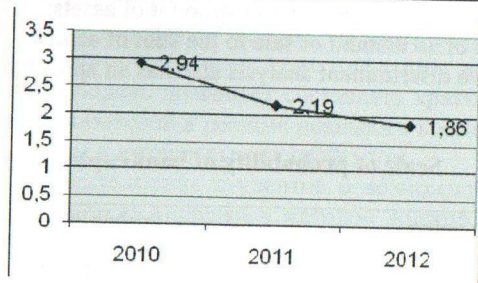
Figure 1 – Dynamics of indicators of liquidity of the current assets

By results of calculation value of coefficients of Altman Abyroy for 2010-2012gg. it is visible that in probability of bankruptcy respectively made-2,94; 2,19; 1,86 – it testifies to average and high probability of bankruptcy of the enterprise that not in the best way characterizes a financial condition of the enterprise.

Thus, the analysis of solvency and probability of bankruptcy, shows that delivery of the credits is connected with the increased risk, calculation value of coefficients of Altman testifies to high probability of bankruptcy.

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METHODS OF THE ECONOMIC ANALYSIS

The fundamentals of any science are made by its subject and a method. Subject of the financial analysis of stability of the enterprise, that is that is studied within this science, – financial resources and their streams. The contents and the main purpose of the financial analysis – an assessment of a financial state and identification of opportunities of increase of efficiency of functioning of the managing subject by means of rational financial policy. Achievement of this purpose is carried out by means of a method inherent in this science.

Basic element of a method of science is its scientific device. Now it is almost impossible to isolate receptions and methods of any science as inherent it is exclusive

it – interpenetration of scientific tools of various sciences is observed. In the financial analysis and management various methods developed initially within this or that science also can be applied.

There are various classifications of methods of the economic analysis. The first level of classification allocates the formalized and unformalized methods of the analysis. The first are based on the description of analytical procedures at logical level, instead of on strict analytical dependences. Methods concern to them: expert estimates, scenarios, psychological, morphological, comparisons, creation of systems of indicators, creation of systems of analytical tables, etc. Application of these methods is characterized by a certain subjectivity as of great importance are intuition, experience and knowledge of the analyst/32/.

Cornerstone at the heart of which rather strict formalized analytical dependences are belong to the second group. Tens these methods are known: they make the second level of classification. We will list some of them.

Classical methods of the analysis of economic activity and financial analysis: chain substitutions, arithmetic differences, balance, allocations of the isolated influence of factors, percentage numbers, differential, logarithmic, integrated, simple and difficult percent, discounting.

Traditional methods of economic statistics: averages and relative sizes, group, graphic, index, elementary methods of processing of ranks of dynamics.

mathematic-statistical methods of studying of communications: the correlation analysis, the regression analysis, the dispersive analysis, the factorial analysis, method main a component, the kovariatsionny analysis, an object method – the periods, the cluster analysis and other methods/36/.

Econometric methods: matrix methods, harmonious analysis, spectral analysis, methods of the theory of production functions, methods of the theory of intersectoral balance.

Methods of economic cybernetics, methods of machine imitation, linear programming, nonlinear programming, dynamic programming, etc.

Methods of research of operations and decision-making theories, methods of the theory of counts, method of trees, theory of games, theory of mass service, methods of network planning and management.

Certainly, not all from the listed methods, can find direct application within the financial analysis as the main results of the effective analysis and management are reached by means of special financial instruments.

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