

МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ РОССИЙСКОЙ ФЕДЕРАЦИИ

ФЕДЕРАЛЬНОЕ ГОСУДАРСТВЕННОЕ АВТОНОМНОЕ
ОБРАЗОВАТЕЛЬНОЕ УЧРЕЖДЕНИЕ ВЫСШЕГО ОБРАЗОВАНИЯ
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УНИВЕРСИТЕТ ИМЕНИ АКАДЕМИКА С.П. КОРОЛЕВА»

ФИНАНСОВЫЙ МЕНЕДЖМЕНТ,
БЮДЖЕТИРОВАНИЕ И
ФИНАНСОВЫЙ АНАЛИЗ:
МЕТОДИЧЕСКИЕ УКАЗАНИЯ
К ПРАКТИЧЕСКИМ ЗАНЯТИЯМ

FINANCIAL MANAGEMENT,
BUDGETING &
FINANCIAL ANALYSIS:
METHODOLOGICAL GUIDELINES
FOR WORKSHOPS

Рекомендовано редакционно-издательским советом федерального государственного автономного образовательного учреждения высшего образования «Самарский национальный исследовательский университет имени академика С.П. Королева» в качестве методических указаний для студентов Самарского университета, обучающихся по основной образовательной программе высшего образования по направлению подготовки 38.04.02 Менеджмент

Составитель *Т.С. Коростелева*

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Составитель *Т. С. Коростелева*

Рецензент д-р экон. наук, проф. М. Г. Сорокина

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Методические указания содержат методику проведения, а также тематический план практических занятий по курсу «Финансовый менеджмент, бюджетирование и финансовый анализ» («Инвестиционный анализ»). Особое внимание уделено учебным заданиям к практическим занятиям, представляющим собой методический комплекс контрольных вопросов, индивидуальных заданий и задач по основным разделам курса.

Предназначено для студентов, обучающихся по направлению подготовки 38.04.02 Менеджмент, Master Program in High-Technology Business Management.

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INTRODUCTION

Workshops on the course "Financial management, budgeting and financial analysis" - the most important form of classroom work, as well as all of the educational process for the development of a working program of discipline.

The aim of the workshops is to deepen and consolidate the theoretical knowledge acquired in the lectures in the field of financial management, namely intra-budgeting, investment planning, and financial analysis and forecasting.

Tasks workshops:

✓ to give students a clear understanding of the basic principles of effective budgeting, methods of collection and processing of information necessary for the preparation, correction and analysis of budgets;

✓ develop in students the practical application of the technology of budgeting skills in industrial and commercial organizations, including the ability to:

- prepare the financial structure of the enterprise, to determine the types of financial responsibility centers, formulate the financial goals and choose the corresponding targets of the enterprise;

- prepare operating budgets and financial companies;

- interpret the results of budgeting and draw conclusions on the basis of the calculated financial and economic indicators;

- propose appropriate management decisions;

✓ develop students' skills of practical application of the theoretical concepts in formulating and solving problems, and evaluating the effectiveness of risk implemented by financial and investment activities;

✓ to form students' ability to analyze the company's financial model; identify financial problems, predict the probability of bankruptcy in order to prevent its successful enterprise or output from a crisis situation.

As a result of the successful development of the themes and content of workshops, students gain an understanding not only of Russian, but also the international practice of financial management, budgeting and financial analysis of commercial organizations.

1. METHOD OF SEMINARS AND WORKSHOPS ON THE COURSES «FINANCIAL MANAGEMENT, BUDGETING & FINANCIAL ANALYSIS»

Workshops on the course "Financial management, budgeting and financial analysis" play the role of one of the types of monitoring knowledge.

It is on the workshops, each student has the opportunity to check the depth of learning. Participation in the seminar allows the student to combine theoretical knowledge with the solution of specific practical problems and situation of financial management models, to estimate the current and future financial situation of the industrial and commercial organizations.

The purpose of the workshops is to consolidate the theoretical knowledge in lectures and in the process of self-study by students of literature.

The workshops include the seminars and practical training. The basic form of the seminars is to discuss the most problematic and complex issues on specific topics. The basic form of practical training is to solve the problems. The duties of a teacher include providing guidance and advice to students on relevant topics of the course.

Each seminar instructor dictates the number of issues that need to prepare for the next session, and recommends additional literature that could assist in the process of preparation. A must for the success of seminars and workshops is home preparing them students. To prepare for seminars, students work independently from the economic literature, with the lecture material, with information resources the Internet, prepare summary reports, reports on outstanding teachers topics. In some cases, home training also involves work on individual tasks and the decision issued by the teacher tasks.

Subjects of workshops in key areas coincides with the theme of the previous lectures, however, suggests a more profound and detailed development of the material. Thus, the theme of the seminar, in some cases a separate section of the lecture classes.

At the beginning of workshops may conduct oral questioning on the previous topics in order to check the residual knowledge of students. Also, in some cases, carried out checks issued to the individual home assignments and practical tasks. The audit identifies the most distinguished teacher of students and gives additional explanations on the issues which caused the greatest difficulties.

After that, the teacher goes directly to the topic of the seminar or practical lesson. During the seminars, students make brief reports or papers, discuss them collectively respond to the questions posed by the teacher. During the practical exercises students solve problems and perform individual tasks. There are holding discussions on the topic.

The most difficult issues on which students did not find enough material, or which caused difficulties due to the complexity of their execution, receive additional explanations and comments from the teacher. At the end of class the teacher concludes.

2. THEMATIC PLAN OF WORKSHOPS

Table 1. Thematic plan of workshops

№ p/p	Name sections and topics	Number of hours	The form
1.	<u>Section 1. Intrafirm budgeting</u> The budgeting process in a commercial organization.	2	Active
2.	Types of budgets of production and trading company.	2	Interactive
3.	<u>Section 2. Development of business plans for investment projects.</u> Estimation of the capital cost of investment project.	2	Active
4.	The main criteria of efficiency of investment project and methods of assessment.	2	Interactive
5.	<u>Section 3: Financial analysis and forecasting.</u> Analysis of the financial statements.	2	Active
6.	Methods of predicting a possible bankruptcy of the enterprise.	2	Interactive
	TOTAL	12	-

3. TRAINING TASKS FOR WORKSHOPS

3.1. The budgeting process in a commercial organization

Lesson plan:

1. The relationship of strategic organization and budget management.
2. Common rules and standards for budgeting.
3. Organizational budgeting issues.
4. Development of the scheme conditional financial structure of the company (*individual task*).
5. Russian and foreign budgeting automation system (*in the form of reports on the student's choice*).

Control questions:

1. Give the definition of "budget" concept.
2. The main characteristics of the budget.
3. Give the definition of the concept of "budgeting".
4. Describe the stages of the budget process.
5. What are the rules and standards of budgeting system in the company?
6. Describe the components of the budget process infrastructure.
7. The classification of budgets by levels of entry into the consolidated budget of the enterprise.
8. The classification of budgets, deadlines, functionality, degree of execution, correction possibilities
9. The characteristics of the centers of the enterprise responsibility, exercising budgetary control.
10. Describe the function of the control apparatus and the responsibility centers in the budget execution monitoring.
11. Formulate the purpose of the analysis of the budget execution.
12. What are some examples of conditions and performance bonuses for different responsibility centers?
13. What is meant by the principle of "transparency" of information?
14. What are the main stages of the budgeting automation?
15. What are the advantages of budgeting?
16. What are differences between the Cash Budget and the Statement of Cash Flows.

Individual tasks:

Develop a scheme of conditional financial structure of the companies and select the types of financial responsibility centers:

1. Manufacturing Company (plant) in the holding manufactures products in accordance with the established "top" range. The distribution of functions between the holding companies is such that the plant is not engaged in the sales and all production takes trading holding company. Thus, the distribution function of the plant is absent. Changing the composition of fixed assets plant cannot, because this right is endowed with only the holding company.

2. Trade-production company has three areas of activity, i.e., actually carrying three businesses: trade, services, production of semi-finished products. Each area (business) is engaged in the implementation of their own, but a number of services are firm wide (finance, logistics, personnel). Each area (business) is able to regulate the amount of sales (income) and the amount of resources consumed (inputs). However, businesses can control only their own costs (direct) and firmwide costs beyond their control. The margin of all three sectors (businesses) to the coating firmwide indirect overhead costs and should provide the required level of income as a whole. Businesses do not have the right to manage fixed assets located in their use.

3. Manufacturing Company (plant) in the holding manufactures products for its production profile. It implements its own on the market. In such a situation, the company may adjust the value of sales (income) and the amount of resources consumed (inputs). Changing the composition of fixed assets plant cannot, decisions in this area takes a holding company.

4. The merchant sells goods through wholesale and retail store. Due to the price and assortment policy of wholesale and retail can provide the required sales and to a certain extent to adjust selling prices, thus determining, the amount of trade margins. The rest of the cost controls other divisions of the company. Responsibility for profit enterprise carries on the whole; it also has the right to manage fixed assets.

5. Multi-group carries out diversified activities, i.e. has several unrelated businesses: produces and sells household products, produces and sells automobile parts, provides telecommunication services. To maintain every business organized by a separate entity. Businesses do not have the right to operate under their use of fixed assets, because this right belongs to the concern. Itself a parent company exercises common to all participants in the

group functions: general management, planning, controlling, logistics, human resources management. In carrying out these functions, it consumes resources.

Topics of reports:

1. Russian budgeting automation system (student's choice) "Intalev: Corporate Finance", "EC: Administrative balance", "CIS: Budgeting" PlanDesigner, GM "Operational Financial Accounting".

2. Foreign budgeting automation system (student's choice) Oracle Hyperion Planning (Oracle), IBM Cognos Planning (IBM), Corporate Planner (Corporate Planning), Prophix (Profix Software).

3.2. Types of budgets of production and trading company

Lesson plan:

1. Operating budgets: types, purpose, approaches to forecasting and construction.

2. Purpose and procedure for drawing up support budgets: credit, tax, investment plan.

3. The main tasks of the master budget.

4. The relationship of articles auxiliary operating budgets and articles to the core budget.

5. Development of operational, support and core budgets of industrial and commercial organizations.

6. Management of the organization on the basis of key performance indicators (KPI).

Control questions:

1. Describe the components of the budget process infrastructure.

2. The classification of the levels of budgets becoming a part of the consolidated budget of the enterprise.

3. The classification of budgets, deadlines, functionality, degree of execution, adjustment possibilities.

4. Formulate the goal of a consolidated budget of the enterprise.

5. What are the main tasks of the master budget?

6. Describe how the development of the operating budget.

7. Describe how the development of the investment budget.

8. Describe how to develop a financial budget.
9. Describe the internal control system of execution of the consolidated budget.
10. Describe the algorithm of composite enterprise budget for the new budgetary period.
11. Describe the steps of the analysis of the execution of the consolidated budget.
12. What are the KPI can be used to assess the work unit "Financial management" and the assessment of financial management quality.
13. What are the KPI can be used to assess the satisfaction of shareholders?
14. What are the KPI can be used to assess the satisfaction of staff?
15. What are the KPI can be used to assess customer satisfaction?
16. Give the KPI by major budgets.
17. Give the KPI by type of support budgets.

Task:

The company produces two types of engines for motor vehicles, using as the main material alloy number 1 and number 2 alloy. Accounting policy provides for the use FIFO method. The baseline data are presented in tables 2-6.

Table 2. Company's development plan for 2018

Index	Motor	
	№1	№2
Planned sales volume.	2 500	500
Sale price of one unit, ruble.	300	400

The planned level of stocks of finished products at the end of the period:
 for engine № 1 — 550 pcs,
 for engine № 1 — 25 pcs.
 Estimated cost of direct costs:
 alloy №1— 3,5 rub. / kg;
 alloy № 2 — 5 rub. / kg;
 labor of production workers — 10 rub. / h.

Table 3. The composition of the direct costs, included in the unit cost

Index	Motor	
	№1	№2
№1 Alloy	6 kg	6 kg
№2 Alloy	3 kg	4 kg
The work of production workers	2 h	3 h

Planned inventory of materials at end of period:
for alloy № 1 - 4000 kg, alloy №2 - 1,000 kg.

Table 4. Planned overhead

Overheads	Index	Rub.	Amount rubles.
Variables	Wages auxiliary workers	150 000	
	Prize workers	160 000	
	Electric power	45 000	
	Repairs	35 000	
	Depreciation	115 000	
Constant	Property tax	25 000	600 000
	Salary of masters	50 000	
	electric power	10 000	
	Repairs	10 000	
	<i>R & D Expenses</i>		
Constant	Wage	105 000	136 000
	materials	31 000	
	<i>Marketing expenses</i>		
Constant	Wage	65 000	100 000
	Advertising	15 000	
	Business trips	20 000	
	<i>Selling expenses</i>		
Constant	Wage	30 000	50 000
	Rent, taxes	20 000	
	<i>Customer Service</i>		
Constant	Wage	20 000	30 000
	Business trips	10 000	
	<i>Administrative expenses</i>		
Constant	Wages Governors	80 000	196 000
	Salaries of the employees	40 000	
	Administrative premises	40 000	
	Miscellaneous	30 000	

Table 5. Data on raw stock:

Index	Alloy №1	Alloy №2
Inventories at beginning of period, kg.	3 500 25 000	3 000 30 000
The cost of stocks, rbl.		

Table 6. Data on the availability of finished products in stock

Index	Alloy №1	Alloy №2
Initial stocks, pieces.	50	25
Initial stocks, rbl.	19 200	13 100

Requires:

1. Prepare the operating budget for 2019 should be established:
 - sales budget;
 - production budget (in pieces);
 - budget of the use of direct materials;
 - budget labor costs;
 - overhead cost budget;
 - Budget ending stocks (materials and finished products);
 - budget of cost of goods sold;
 - plan of profits and losses.
2. Prepare the financial budget for 2019 Development of the budget is subject to cash flow.
3. Create the forecast balance.

Individual tasks:

1. Compare the budgeting techniques and composition of the budget in the areas of production and trade. Completing quests submit in writing a teacher.
2. To analyze the literature and selecting key performance indicators (the KPI) with calculation formulas and explanation of nature (at least 25). Make a group of performance indicators by groups of users. Completing quests submit in writing a teacher.

3.3. Estimation of the capital cost of investment project

Lesson plan:

1. Approaches and models of determining the cost of capital.
2. Models of determining the cost of equity.
3. Models of determining the cost of capital.
4. The weighted average cost of capital

Control questions:

1. Explain the essence of the concept of cost of capital.
2. What is meant by capital in financial management?
3. Describe the main sources of financing the activities of the commercial organization in terms of their value. It depends on whether their composition on the type of organizational-legal form of business entity?
4. Give examples of free and paid sources of funding.
5. What kind of capital is more expensive - own or borrowed, and why?
6. Give the method of calculating the weighted average cost of capital.
7. What do you mean the marginal cost of capital?
8. What factors influence the choice of capital structure?
9. What is the relationship between the structure and the cost of capital?
10. How to calculate the optimal capital structure?
11. What is the method of calculating the cost of a bank loan?
12. What is the method of calculating the value of the bonds?
13. What is the method of calculating the value of common and preferred shares?
14. What is the method of calculating the cost of retained earnings?

Tasks:

1. The company plans to issue bonds with par value of 1,000 rubles with a maturity of 10 years and an interest rate of 9%. These, therefore, the funds will be invested in the investment project. The costs of placement of bonds are 3% of the nominal value. To increase the attractiveness of their bonds sold on the terms of the discount - 2% of the nominal value. Income tax - 20%. What is the value of this source of funds?

2. The company plans to issue preferred shares with a yield of 10%. Face value of a share is 100 rubles. Costs of IPO amount to 3 rubles. per share. Calculate the value of the source "preferred shares".

3. Dividends the Company accounted for 10% in the past year. Its securities are currently selling at a price of 3000 rubles. per share. In the future there will be a steady increase in the dividend at a rate of 10% per year. What is the value of the shares?

4. The share capital of the company has a β - coefficient of 1.2. The market risk premium is 8%, and the interest rate without risk - 10%. What is the value of the company share capital?

5. The market value of the ordinary shares of Alfa company is 450 000\$, preferred shares - 120 000 \$, and the total loan capital - 200 000\$. The cost of equity is 14%, 10% preferred shares and bonds of the company 9%. It is necessary to determine the weighted average cost of capital at the rate of income tax - 20%.

6. ABC company is a relatively stable company with a value of $\beta = 0,5$, and the BCA, the company in recent years has experienced fluctuations in the state of rising and falling of their income, which led to the value of $\beta = 1,2$. The interest rate risk-free investment of capital is equal to 6% and the average for the stock market - 12%. Determine the cost of capital of companies with the help of the pricing model of capital assets. Post interpreting the value of the cost of capital.

7. The company is considering an investment project involving the purchase of expensive equipment. To purchase the equipment the company is able to attract a bank loan. Equipment cost is 1000 million rub. intended use of the term - 5 years. The rate of a bank loan - 22%. Depreciation - 20% per year. An alternative solution is financial leasing of the same hardware with the setting on the balance. The validity of a reservation - 5 years. The annual lease payment is 360 thousand. Rub. Ownership at the end of the contract to the lessee. The income tax rate - 20%. Justify the selection of variants of investment project financing.

8. The implementation of the investment project involves the purchase of equipment worth 100 000\$, Which is planned to operate for two years. The company is considering two options for the purchase of equipment. The first option involves the financing of the transaction through a bank term loan

at 20% per annum for two years with an interest payment at the end of each year and full repayment of the debt at the end of the second year. In the second case the equipment is taken on lease for two years with the payment of 60 000\$ At the end of each year. It is assumed uniform write-off the cost of equipment for two years. The income tax rate - 20%. Justify the selection of variants of investment project financing.

3.4. The main criteria of efficiency of investment project and methods of assessment

Lesson plan:

1. The discounted and undiscounted performance indicators of investment projects.
2. Decision on the least cost.
3. Drawing up a financial plan for the project.
4. Design scheme evaluation of indicators of efficiency of investment projects.

Control questions:

1. Explain the essence of the concept of time value of money.
2. Explain the essence of the concept of cash flow.
3. Explain the essence of the concept of trade-off between risk and return.
4. Which of these concepts seem most important to you?
5. What are the factors to consider when evaluating investment projects?
6. What is the financial meaning of the concept of discounting operations and compound interest?
7. What are the methods for determining the discount rate (the alternative rate of return), you know?
8. What is the "cash flow"?
9. What kinds of cash flows, you know?
10. How to determine net cash flow?
11. What decision-making criteria are known to you?
12. What is not discounted the most popular figures in the assessment of investment projects?
13. What are the indicators for assessing the effectiveness of investment projects recommended by UNIDO? Give a brief description of the scope of use and rate of each indicator.

14. Explain the method of preparation of the investment project financial plan. What are the main topics?

Tasks:

1. It is necessary to choose the best of the two investment projects (table 7). The cost of capital $i = 15\%$ per year.

Table 7. Source data

Project	Investments, thousand. Rub.	Net cash flow (NCF) per year, ths. Rub.	Lifetime, years
<i>A</i>	1 450	300	10
<i>B</i>	875	275	5

2. Calculate the IRR of the project (table 8), using the approximate formula.

Table 8. Source data

Index	year				
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
Net cash flow (NCF) per year (thous. Dollars.)	-200	20	40	60	60

3. Compare the NPV of the project (table 9) and payback period, if the cost of capital - 13%. Choose the best.

Table 9. Source data

Project	NCF per year				
	<i>0</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<i>A</i>	- 20 000	7 000	7 000	7 000	7 000
<i>B</i>	-25 000	2 500	5 000	10 000	20 000

4. Calculate the IRR for each of the projects (table 10), if an acceptable rate of return is 15%. Choose the best.

Table 10. Source data

Project	NCF per year				
	0	1	2	3	4
A	- 20 000	7 000	7 000	7 000	7 000
B	-25 000	2 500	5 000	10 000	20 000

5. The financial manager should evaluate the investment projects that are not alternative. The cost of capital is 8%. What projects (table 11) will be recommended by an investment company under the constraint of funding 600 000 Rub. How the company will lose in price because of the limited funding? The calculations take into account the criteria - **NPV and payback period**.

Table 11. Source data

Project	The amount of investment, ths. Rub.	Term, years	NCF per year, rubles.	NPV	Payback period
I	300	6	72 680		
II	100	3	46 560		
III	100	5	27 047		
IV	200	4	69 444		
V	200	7	36 496		
VI	300	8	57 421		

6. The organization plans to make capital investments of 1200 thousand. Rub.

Table 12. Source data

Project	Investments, ths. Rub.	NCF per year, ths. Rub.			
		1	2	3	4
A	400	100	140	190	280
B	550	120	170	200	260
C	450	50	150	150	300
D	200	80	100	100	100

The required rate of return - 12%. What projects (Table 12) will be taken to introduce?

7. The company is considering an investment project for the acquisition of a new production line. The cost - 15 million USD. Service life - 5 years.

Depreciation is charged straight-line method. Suma, the proceeds from the liquidation of the equipment at the end of the period covered by the cost of its removal. Revenue from sales is planned in the following amounts (table 13):

Table 13. Source data

Index	year				
	1	2	3	4	5
Revenue, ths. USD	10200	11100	12300	12000	9000

Current costs for years: in the first year - 5100 thousand USD, then annually increase by 4%. The income tax rate - 20%. Price advanced capital - 14% Initial investment made at the expense of own funds. Whether the benefits of the project?

8. The company discusses the following investments. Determine the NPV of the project. Choose the most effective project (table 14).

Table 14. Source data

OPTION	Investments, ths. Rub.	PI
A	3000	1,6
B	2200	1,4
C	1000	2,2
D	900	1,8

3.5. Analysis of the financial statements

Lesson plan:

1. The Group's financial state analysis of indicators: a methodology for the calculation and interpretation.
2. Assessment satisfactory balance sheet structure.
3. Optimizing the balance sheet structure as a factor in improving the financial condition of the company.

Control questions:

1. Which groups of people are interested in the results of the analysis of the financial condition of the company? Who are they interested in?
2. What financial statements are the source of information for the analysis of the financial condition of the company?

3. Identify the advantages and disadvantages of analytical factors used for the analysis of financial statements.
4. Explain the concept of "liquidity". Rank the assets of the organization from the least to the most liquid liquid.
5. Is there any difference between the concepts of "liquidity" and "solvency"? Give a comparative description of these categories.
6. Give examples of where the organization is a liquid but insolvent and solvent but not liquid.
7. What is meant by "financial stability"?
8. Can the value of the indicator "working capital" to be less than zero? If yes, then, first of all, good or bad, and, secondly, does it make sense in this case to calculate the liquidity ratios to characterize the financial condition?
9. What should I look for when the characteristics of the financial condition of the company, first of all, from the perspective of short-term perspective, and secondly, from the perspective of the long-term prospects?
10. What is meant by "business activity"?
11. What is the relationship between the indices of turnover and turnover period?
12. On the basis of what indicators are judged satisfactory balance sheet structure?
13. Give the definition of "effect" and "efficiency".
14. What types of income and profitability do you know?
15. What characterizes the indicator "profitability of production"?

Tasks:

1. Give the following data from the company's balance sheet Since the end of the year (thousand \$.):
 - non-current assets - 1900;
 - receivables - 365;
 - productive reserves - ?;
 - cash - 5;
 - short-term payables - 305;
 - provision for doubtful debts - 15;
 - working capital - 100;
 - authorized capital - ?;
 - retained earnings - 500.
 It is necessary to determine:

- a) the amount of inventories;
 - b) the amount of the authorized capital of the company;
 - c) draw up a balance;
 - d) to calculate the value of the current liquidity ratio.
2. Using the following financial statements (table 15), determine:
- a) liquidity ratios;
 - b) the inventory turnover, and turnover period;
 - c) asset turnover and fixed assets;
 - d) equity ratio;
 - d) return on sales, assets and own funds.

Table 15. Financial statements

Assets	mln. rub.	liability	mln. rub.
Fixed assets	300	Authorized capital	200
Stock	600	Retained earnings	400
Receivables	200	Bonds	200
Cash	100	Accounts payable	400
Total	1200	Total	1200

Sales volume - 800 million rubles, expenses - 600 million rubles, the income tax rate - 20%.

3. Which of the situations A, B, C (table 16), most preferred from the standpoint of profitability assets?

Table 16. Financial situations

Situation	Return on sales, %	Asset conversion cycle
A	2	3
B	7	2
C	4	3

4. Current liabilities equals 5500 thousand. Rub. Current ratio and intermediate liquidity are respectively 2.2 and 1.3. Calculate the turnover ratio of inventories provided that sales amounted to 44 550 thousand. Rub.

5. Company «A» has the following structure of the balance sheet (table 17). Using the available financial statements, it is necessary:

- a) to analyze the financial condition of the enterprise on the basis of:
 - analysis of liquidity;

- analysis of financial stability, including on the basis of the three-figure;
 - b) to draw conclusions about the sufficiency of the enterprise structure;
 - c) optimizing the balance structure;
 - g) calculate financial ratios for the original and adjusted (optimized) balance. The calculation results are summarized in a table 18.

Table 17. The balance sheet of the company A

ASSETS	The sum, rub.	LIABILITIES	The sum, rub.
I. Non-current assets	1 066 935	III. Capital and reserves	897 612
II. Current assets, Including	423 229	IV. Long term duties	121 197
- Inventories	200 337	V. Current liabilities, including	471 362
- Cash	17 116	- Short-term borrowings	200 000
Balance currency	1 490 164	Balance currency	1 490 164

Table 18. Calculation results

INDICATORS	Company A	Company A with a view to optimizing
Current ratio		
Ratio of own working capital		
Coefficient of autonomy		
The financial dependence		
Three-figure		

3.6. Methods of predicting a possible bankruptcy of the enterprise

Lesson plan:

1. Altman models.
2. Lis model.
3. Taffler and Tisshaw model.
4. Savitskaya rating methodology.
5. Comparative characteristics of different estimates of the probability of bankruptcy threat models.

Control questions:

1. On what technique based Altman model, Lis, Taffler and Tisshaw?

2. Explain the methodology for calculating the two-factor model of Altman.
3. Explain the methodology for calculating the four-factor model of Altman.
4. What is the difference of the original five-factor model of Altman improved the five-factor model? What is their method of calculation.
5. Which of the Altman model has the highest reliability in the interval of up to 1 year? After 2 years?
6. What are the advantages and disadvantages of the models listed above Altman?
7. Explain the methodology for calculating the Z-score for the Lis model. This model can be used for a class of business?
8. Explain the methodology for calculating the Z-score model for Taffler and Tisshaw.
9. What is the essence of bankruptcy prediction model Savitskaya?
10. The classification of types (classes) of the financial condition of the company, appearing in the model Savitskaya. Give their response.
11. What are the basic indicators based model Savitskaya. What is their economic sense?
12. What other methods of Z-score are known to you?
13. What, in your opinion, the advantages and disadvantages of forecasting techniques studied
14. In your opinion, what are the advantages of Z-score methods compared to rating methods and vice versa?

Tasks:

1. Using the data of table 19, to assess the threat of bankruptcy for the company for two-factor model of Altman.

Table 19. Source data

Index	thousand roubles	
	For the beginning of the year	At the end of the year
Current assets	6 192	5 445
Current liabilities	10 395	14 764
Borrowed funds	30 505	30 422
Total liabilities	50 253	51 916

The conclusions take into account the dynamics of the Z-score.

2. Using the data of table 20 to assess the threat of bankruptcy for the company for four-factor model Altman.

Table 20. Source data

Index	thousand roubles	
	For the beginning of the year	At the end of the year
Profit (loss) before tax	1 684	5 546
Money	41 567	43 919
Current assets	6 192	5 445
Current liabilities	10 395	14 764
Revenue - Net	9 205	39 152
Operating assets	49 181	51 497
Operating expenses	6 632	30 503

3. Using the data of table 21, to evaluate the threat of bankruptcy for the company by the original and improved the five-factor Altman model.

Table 21. Source data

Index	thousand roubles	
	For the beginning of the year	At the end of the year
Current assets	6 192	5 445
Current liabilities	10 395	14 764
The amount of assets	50 253	51 916
Retained earnings	1 200	3 685
Profit before tax + interest expense	1 223	3 694
Authorized capital	4 816 166	4 816 166
liabilities borrowings	30 505	30 422
Revenue net	9 205 786	39 152

The authorized capital of the company formed through the issuance of 4,816,166 ordinary shares, par value of 1,000 rubles. The market value of one share of the company at the beginning of the year amounted to 842 rubles, and 1112 rubles at the end of the year.

4. Using the data of table 22, to evaluate the threat of bankruptcy for an enterprise on the Lis model.

Table 22. Source data

Index	thousand roubles	
	For the beginning of the year	At the end of the year
Working capital	45 669	52 070
The amount of assets	120 574	130 695
Profit on realization	1 272	6 878
Retained earnings	645	3 951
Equity	49 465	57 421
Short-term loans	11 409	13 274
Long-term loans	60 000	60 000

The conclusions take into account the dynamics of the Z-score.

5. Using the data of table 23, to evaluate the threat of bankruptcy for an enterprise on the Taffler and Tisshaw model.

Table 23. Source data

Index	thousand Roubles	
	For the beginning of the year	At the end of the year
Profit (loss) on sales	10 668	9 038
Short-term (current) liabilities	4 429	7 303
Current assets	33 369	38 284
Long term duties	10 000	10 000
Revenues from sales	77 094	72 328
The amount of assets	44 871	51 231

The conclusions take into account the dynamics of the Z-score.

6. Using the financial statements (Table 24) to evaluate the threat of bankruptcy for an enterprise on the G.V. Savitskaya model.

Table 24. Financial statements

Assets	mln. rub.	liability	mln. rub.
Fixed assets	300	Authorized capital	200
Stock	600	Retained earnings	400
Receivables	200	Bonds	200
Cash	100	Accounts payable	400
Total	1200	Total	1200

Which class of the financial condition of the company refers analyzed?

CONCLUSION

Summarizing the above, it should be noted that the lectures and extracurricular work of students gets its practical completion of the workshops.

The main purpose of workshops - to provide a profound assimilation of the students lectures materials instill skills of independent work with economic literature, teach budgeting techniques, technology, investment planning and methodology of financial analysis and forecasting.

At the workshops are considered the most important, significant, challenging questions, which are usually the most difficult to digestible students. In some cases, the workshops can also include a specially prepared reports, presentations on any complex or particularly urgent problem. The theme for this presentation are invited teacher or selected by the student.

Practical exercises include analysis of situational tasks and solving problems.

Guide students' work on the part of the teacher to seminars and practical training is carried out:

- issuing assignments to students at another seminary or practical training, as well as recommendations for further reading, able to assist in the preparatory process;

- clarification of the most difficult issues on which students did not find enough material, or which caused difficulties due to the complexity of their assimilation;

- oral poll conducted at the beginning of class, for the prior art to control residual knowledge;

- validation solutions homework, issued, as a rule, the business task or situation, anticipating work on individual tasks in the subsequent practice sessions.

- testing of students. In the frames of workshops, assumed two tests, on the 3rd and 6th classes. Test questions are presented in the Guidelines on the organization of independent work of students on the course "Financial management, budgeting and financial analysis." The negative assessment on the results of the tests does not deprive the right of the student to take the exam, but it can be the basis for additional questions on the exam for the discipline.

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