

**Government of the Russian Federation  
Federal State Autonomous Educational  
institution of higher education  
"National Research University  
"High School of Economics"**

**The program of the qualification exam "Special discipline"**  
for the training of scientific and pedagogical personnel in graduate school  
in the direction of 38.06.01 Economics  
educational program "Economics"

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Супян Н.В., к.э.н., доцент департамента мировой экономики, [nsupyan@hse.ru](mailto:nsupyan@hse.ru)  
Фридман А.А., д.э.н., профессор департамента теоретической экономики, [afriedman@hse.ru](mailto:afriedman@hse.ru)  
Шведов А.С., д.э.н., профессор департамента прикладной экономики, [ashvedov@hse.ru](mailto:ashvedov@hse.ru)*

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This program cannot be used by other departments of the university and other universities without the permission of the program developer

## **SCOPE AND REGULATORY REFERENCES**

This curriculum of academic discipline establishes the minimum requirements for the knowledge and skills of postgraduate students enrolled in postgraduate studies at the National Research University Higher School of Economics (hereinafter - NRU HSE), and determines the content and types of training sessions and reporting.

The program is intended for teachers leading this discipline and graduate students.

The program is designed in accordance with:

- The educational standard of the NRU HSE for the training of scientific and pedagogical personnel in the direction 38.06.01 Economics
- Educational program "Economics"
- Curriculum of the educational program "Economics"
- Passport of specialties of the HSE Dissertation Council in Economics

## **OBJECTIVES OF LEARNING THE QUALIFICATION EXAM**

The purpose of the discipline is to prepare for passing and passing the candidate exam in the specialty in accordance with the scientific specialty of the prepared scientific and qualification work (dissertation).

Competencies of a learner, formed as a result of mastering disciplines

As a result of mastering the discipline, the graduate student must:

Know: the basics of microeconomics, macroeconomics, econometrics and the chosen scientific specialty, the specific features of the economy of the Russian Federation.

To be specified: Record briefly in writing.

Possess the skills of applying economic theory and econometric methods in carrying out professional activities.

## **PLACE OF QUALIFICATION EXAM IN THE STRUCTURE OF THE EDUCATIONAL PROGRAM**

This discipline refers to the compulsory disciplines of the variable part of the educational program and is mastered in 2 years of postgraduate study.

National Research University Higher School of Economics

The discipline program Qualification Exam or "Special Discipline" for the preparation of scientific and pedagogical personnel in graduate school in the direction 38.06.01 Economics, educational program "Economics"

A special discipline is preceded by the development of the following disciplines: Economic theory, Econometrics.

The "Special Discipline" program is differentiated by areas of knowledge in accordance with scientific specialties of the educational program. The graduate student masters the general part and one of eight blocks and passes the candidate exam in the general part and one of eight blocks in accordance with the scientific specialty of his scientific qualification work (dissertation).

The scientific specialty of the dissertation is approved by the Academic Council graduate school in the first year of study.

The candidate exam in "Special Discipline" consists of an answer to a ticket, which includes 5 questions:

1. Question from Topic 1 Microeconomics;
2. 2. Question from Topic 2 Macroeconomics;
3. 3. Question from Topic 3 Econometrics;
4. 4. Question from Topics 4-11, in accordance with the scientific specialty;
5. 5. Question on the Topic of dissertation research.

## **Content of the candidate exam program.**

### **List of topics for preparing for the candidate exam**

#### **Topic 1. Microeconomics**

##### 1.1. Individual behavior: consumer theory

Preferences and usefulness. Consumer choice. Demand and Comparative Statics. Slutsky's decomposition. In-kind choice. Labor supply and multi-period choice. Monetary value of the consumer's gain.

##### Literature

Вэриан Х.Р., Микроэкономика, промежуточный уровень. Современный подход, 1997, гл. 3-10.

##### Additional Literature

Пиндайк Р.С., Рубинфельд Д.Л., Микроэкономика, 2001, гл.3-4.

##### 1.2. Choice theory under uncertainty

(Individually) rational behavior under uncertainty. Contingent goods, expected utility, attitude to risk. Choice in the face of uncertainty: demand for insurance and demand for a risky asset. Price information. Measures of attitude to risk and comparative statics in the analysis.

##### Literature

Вэриан Х.Р., Микроэкономика, промежуточный уровень. Современный подход, 1997, гл.

##### Additional literature

Пиндайк Р.С., Рубинфельд Д.Л., Микроэкономика, 2001, гл. 5.

##### 1.3. Manufacturer behavior theory (neoclassical theory of the firm)

Technology. Technology representations based on production functions and cost functions. Cost minimization and properties of cost functions. Maximizing profits and offering a competitive firm.

##### Literature

Вэриан Х.Р., Микроэкономика, промежуточный уровень. Современный подход, 1997, гл. 17-21.

##### Additional Literature

Пиндайк Р.С., Рубинфельд Д.Л., Микроэкономика, 2001, гл.6-8.

##### 1.4. Partial equilibrium (perfect competition)

Market demand. Competitive Industry Supply and Partial Equilibrium. Partial balance and optimality. Analysis of public policy.

#### Literature

Вэриан Х.Р., Микроэкономика, промежуточный уровень. Современный подход, 1997, гл. гл. 14-16, 22;

#### Additional Literature

Пиндайк Р.С., Рубинфельд Д.Л., Микроэкономика, 2001, гл.9.

### 1.5. Imperfect Markets, Strategic Behavior and Market Structures.

Strategic interactions and their game-theoretic models. Basic concepts of game theory (strictly dominant strategies, Nash equilibrium, dynamic games, and perfect equilibrium in subgames). Strategic interactions of firms: models of oligopolies (Cournot, Stackelberg, Bertrand models) and methods of their analysis. Monopoly and monopoly competition. Price discrimination models. Imperfect markets and suboptimality.

#### Literature

Вэриан Х.Р., Микроэкономика, промежуточный уровень. Современный подход, 1997, гл. гл. 14-16, 22;

#### Additional Literature

Пиндайк Р.С., Рубинфельд Д.Л., Микроэкономика, 2001, гл.9.

### 1.6. The fiasco of markets with externalities and public goods.

Externalities and inefficiency. Approaches to solving the problem: regulations, taxes (subsidies) to Pigou, tradable emission permits, internalization of external influences; externalities and property rights: Coase's theorem. Public goods. Efficiency condition, free rider problem. Approaches to solving the problem. The fiasco of markets with information asymmetry. Unobservable characteristics and the problem of adverse selection. Solution options.

#### Literature

Вэриан Х.Р., Микроэкономика, промежуточный уровень. Современный подход, 1997, гл. гл. 31, 33-34;

#### Additional Literature

Пиндайк Р.С., Рубинфельд Д.Л., Микроэкономика, 2001, гл.17-18.

## **Topic 2. Macroeconomics**

### 2.1. Basic approaches to macroeconomic analysis of the economy.

Macroeconomics ex-post and ex-ante. Theory and politics. Keynesian School: Preconditions and Features of Analysis. Monetarism: Preconditions and Features of Analysis. Dynamic analysis of the impact of a monetary shock using a dynamic AD-AS model from the point of view of Keynesian and monetarist approaches to the analysis of the economy. New classics: premises and features of analysis.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2015, гл.5.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

#### 2.2. Rational expectations and macroeconomic policy.

The theory of rational expectations. Impact of unexpected and expected policies on the economy (Lucas incomplete information model). Criticism of Lucas. A dynamic failure model of low inflationary policies. Ways to solve the problem of dynamic insolvency.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2015, гл.6.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

#### 2.3. New Keynesian approach to the analysis of macroeconomic dynamics and politics.

Basic New Keynesian Model: Functioning of Major Markets in the Model, Behavior of the Household, Firm, and Monetary Power in the Model. Formation of Aggregate Demand, New Keynesian Phillips Curve and Monetary Rule in the New Keynesian Model.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2015, гл.6.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

#### 2.4. Stabilization fiscal policy.

Fiscal policy objectives. Impact of fiscal policy instruments. Keynesian understanding and alternative views on the action of instruments (Ricardian equivalence, the action of instruments in the AD-SRAS-LRAS model). The relationship between fiscal policy and budget deficit. Problems of Determining the Budget Deficit: Actual, Structural and Cyclical Deficits of the State Budget.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2015, гл.2, 5, 11.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

## 2.5. Government budget, inflation and government debt.

Fiscal deficits and hyperinflation. Keigan's model. Extension of the Keigan model (Bruno-Fischer model). Budget deficit and public debt. Arithmetic of budget deficit and public debt. Inflation, economic growth and the problem of financing public debt. Intertemporal approach to the analysis of the budget deficit. Inter-temporal government budget constraint. Condition for the absence of a Ponzi game. Sustainable fiscal policy. Fiscal policy rules. The relationship between fiscal and monetary policy. Unpleasant Sargent-Wallace monetary arithmetic. Solvency of the state. Debt Crisis Model. Fiscal theory of price determination.

### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2015, гл.10,11

### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

## 2.6. Monetary policy.

Objectives and instruments of monetary policy. The mechanism of monetary policy. Transmission channels of monetary policy. Traditional, Credit, Supply-side Views. Main channels: interest rate channel, credit channel, asset price channel, currency channel, expectations channel. Monetary policy strategies. Money supply targeting. Exchange rate targeting. Inflation targeting. Practice and theory of inflation targeting. Targeting rules and instrumental rules. Taylor's rule. Transmission of monetary policy and the current crisis. Unconventional monetary policy.

### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2015, гл.10.

### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч.ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

## 2.7. Economic growth theory.

Solow's neoclassical growth model. Stylized Kaldor Facts (1963) and Latest Growth Facts. Absolute and conditional convergence. Quantitative indicator: rate of convergence. Convergence: selection bias and measurement uncertainties. Savings and investment in growth regression. Convergence and dispersion of per capita income:  $\beta$ - and  $\sigma$ -convergence. Endogenous growth theories. AK model and no diminishing returns to scale. Endogenous growth with transient dynamics and production CES functions. Growth patterns and the poverty trap. Lucas model and R&D model. Dynamics of knowledge accumulation in the model without capital and in the generalized model. The nature of knowledge and the determinants of its accumulation. Incentives for R&D innovation. Opportunities for talented people and learning by doing. Romer's model of endogenous technological progress.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2015, гл.1,3.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

### **Topic 3. Econometrics**

#### 3.1. Basic concepts of probability theory

Random events and random variables. Continuous and discrete random variables and their basic numerical characteristics. Conditional expectation. Normal and basic distributions associated with it.

#### Literature

Вербик М. Путеводитель по современной эконометрике. М.: Научная книга, с.578-591, 2008.

#### Additional Literature

Магнус Я.Р., Катышев П.К., Пересецкий А.А. Эконометрика. Начальный курс. – М.: «Дело», 2000, 2001, 2004, 2007, с.445-471.

#### 3.2. Basic concepts of mathematical statistics

General population and sample. Statistical estimation. Point estimates. Linearity, unbiasedness, efficiency and consistency of estimates. Interval estimates. Method of maximum likelihood and method of moments for obtaining parameter estimates.

#### Literature

Вербик М. Путеводитель по современной эконометрике. М.: Научная книга, с.578-591, 2008.

#### Additional Literature

Магнус Я.Р., Катышев П.К., Пересецкий А.А. Эконометрика. Начальный курс. – М.: «Дело», 2000, 2001, 2004, 2007, с.445-471.

#### 3.3. Multiple Linear Regression

Multiple linear regression. Least squares method and its geometric interpretation in the multidimensional case. Gauss - Markov theorem for multiple linear regression. Multiple determination coefficient and its properties. Inapplicability of the coefficient of determination for assessing the quality of a regression fit passing through the origin. Multiple determination coefficient corrected for the number of degrees of freedom.

#### Literature

Вербик М. Путеводитель по современной эконометрике. М.: Научная книга, с.39-50, 2008.

#### Additional Literature

Магнус Я.Р., Катышев П.К., Пересецкий А.А. Эконометрика. Начальный курс. – М.: «Дело», 2000, 2001, 2004, 2007, с.60-69.

Э. Колин Кэмерон, Правин К. Триведи Микроэконометрика: Методы и их применение. – М.: Издательский дом «Дело» РАНХиГС, 2015, с.77-92.

### 3.4. Linear Hypothesis Testing for Multiple Regression Coefficients

Assumption of normal distribution of random error. Testing hypotheses about the specific value of the regression coefficients. Testing hypotheses about the significance of the regression coefficients. Confidence intervals for regression coefficients. Testing the hypothesis about the adequacy of the regression. Testing the general linear hypothesis about the presence of several linear relationships between the regression coefficients. Wald tests, likelihood ratios and Lagrange multipliers to test general constraints in a classical regression model.

#### Literature

Вербик М. Путеводитель по современной эконометрике. М.: Научная книга, с.51-64, 2008.

#### Additional Literature

Магнус Я.Р., Катыхшев П.К., Пересецкий А.А. Эконометрика. Начальный курс. – М.: «Дело», 2000, 2001, 2004, 2007, с. 70-80, 224-232.

### 3.5. Dummy Variables

Dummy variables and their use to differentiate free terms and regression slope coefficients. Investigation of the structural stability of regression coefficients using the Chow test.

#### Literature

Вербик М. Путеводитель по современной эконометрике. М.: Научная книга, с.120-136, 2008.

#### Additional Literature

Магнус Я.Р., Катыхшев П.К., Пересецкий А.А. (2004), Эконометрика. Начальный курс. – М.: «Дело», 2000, 2001, 2004, 2007, с.100-105.

Э. Колин Кэмерон, Правин К. Триведи. Микроэконометрика: Методы и их применение. – М.: Издательский дом «Дело» РАНХиГС, 2015, с. 296-333.

### 3.6. Selecting the functional form of the model

Linear logarithmic regression as a constant elasticity model. Semi-linear model as a model with constant growth rates. Choosing between models using the Box-Cox test.

#### Literature

Вербик М. Путеводитель по современной эконометрике. М.: Научная книга, с.120-136, 2008.

#### Additional Literature

Магнус Я.Р., Катыхшев П.К., Пересецкий А.А. (2004), Эконометрика. Начальный курс. – М.: «Дело», 2000, 2001, 2004, 2007, с.100-105.

Э. Колин Кэмерон, Правин К. Триведи (2015) Микроэконометрика: Методы и их применение. – М.: Издательский дом «Дело» РАНХиГС, 2015, с. 296-333.



### 3.7. Model specification errors

Bias in coefficient estimates due to non-inclusion of significant variables. Reducing the efficiency of coefficient estimates when excessive variables are included in the model. RESET - Ramsey test to test the hypothesis of the existence of missing variables.

### 3.8 Multicollinearity

Ideal and practical multicollinear data. Diagnostics and consequences of the presence of multicollinearity for the estimates of the parameters of the regression model. Methods for dealing with multicollinearity.

#### Literature

Вербик М. Путеводитель по современной эконометрике. М.: Научная книга, 2008, с. 93-119.

#### Additional Literature

Магнус Я.Р., Катышев П.К., Пересецкий А.А. (2004), Эконометрика. Начальный курс. – М.: «Дело», 2000, 2001, 2004, 2007, с.110-121.

Э. Колин Кэмерон, Правин К. Триведи. Микроэконометрика: Методы и их применение. – М.: Издательский дом «Дело» РАНХиГС, 2015, с. 296-333.

### 3.9. Heteroscedasticity. Generalized OLS

Violation of the hypothesis of homoscedasticity. Consequences of Heteroscedasticity for Estimates of Regression Coefficients by Least Squares Method. Application of tests for diagnosing heteroscedasticity. Correction for heteroscedasticity. Standard errors in White's form. Generalized least squares method.

#### Literature

Вербик М. Путеводитель по современной эконометрике. М.: Научная книга, 2008, с.137-163.

#### Additional Literature

Магнус Я.Р., Катышев П.К., Пересецкий А.А. Эконометрика. Начальный курс. – М.: «Дело», 2000,2001, 2004, 2007, с.150-163.

Э. Колин Кэмерон, Правин К. Триведи. Микроэконометрика: Методы и их применение. – М.: Издательский дом «Дело» РАНХиГС, 2015, с. 314

### 3.10. Endogeneity

Endogeneity concept. Method of instrumental variables. Strong and weak instruments. Hausman's test for checking the exogeneity of regressors. Generalized method of moments.

#### Literature

Вербик М. Путеводитель по современной эконометрике. М.: Научная книга, 2008, с.202-258.

#### Additional Literature

Магнус Я.Р., Катышев П.К., Пересецкий А.А. Эконометрика. Начальный курс. – М.: «Дело», 2000, 2001, 2004, 2007, с.190-195.

Э. Колин Кэмерон, Правин К. Триведи. Микроэконометрика: Методы и их применение. – М.: Издательский дом «Дело» РАНХиГС, 2015, с. 210-225.

## Topic 4 . Economic theory

### 4.1. Microeconomic theory

#### 4.1.1. Consumer theory

Preferences, preference properties. The existence of a utility function. Utility maximization problem and cost minimization problem. Duality in consumer theory (Marshall demand, compensated demand, indirect utility function and cost function). The integrability problem. Measuring changes in consumer welfare: offsetting variation, equivalent variation, and consumer surplus. Aggregation problem: from individual choice to aggregate demand.

#### Literature

A.Mas-Colell, M.D.Whinston, J.R.Green, Microeconomic Theory, New York, Oxford University Press, 1995, главы 1-4.

#### Additional Literature

1. Kreps, D. A Course in Microeconomic Theory, Princeton University Press, 1990.
2. Varian H., Microeconomic Analysis, 3rd edition, W.W.Norton &Company, New York, London, 1992.

#### 4.1.2. Modeling the individual behavior of a firm

Methods for describing technologies. Properties of production sets. Profit maximization problem and properties of the profit function. The problem of minimizing costs and the properties of the cost function. Recovery of the production function based on the demand for factors of production. Aggregation in the theory of production.

#### Literature

A.Mas-Colell, M.D.Whinston, J.R.Green, Microeconomic Theory, New York, Oxford University Press, 1995, глава 5.

#### Additional Literature

1. Kreps, D. A Course in Microeconomic Theory, Princeton University Press, 1990.
2. Varian H., Microeconomic Analysis, 3rd edition, W.W.Norton &Company, New York, London, 1992.

#### 4.1.3. General economic equilibrium and welfare

The economy of exchange and the economy with production. The existence of equilibrium. Equilibrium and Efficiency: Theorems of Welfare. Competitive Equilibrium Foundations: Core.

#### Literature

A.Mas-Colell, M.D.Whinston, J.R.Green, Microeconomic Theory, New York, Oxford University Press, 1995, главы 15-18.

#### Additional Literature

1. Kreps, D. A Course in Microeconomic Theory, Princeton University Press, 1990.
2. Varian H., Microeconomic Analysis, 3rd edition, W.W.Norton &Company, New York, London, 1992

#### 4.1.4. Uncertainty Choice and Risk Sharing

The concept of a lottery, preferences defined in the lottery space, the existence of an expected utility function. Risk aversion and Pratt's theorem. Comparative statics in the analysis of investment behavior. General equilibrium under uncertainty: the Arrow-Debreu model with conditioned goods. Equilibrium in the model with sequential trade (Radner equilibrium. Relationship between Arrow-Debreu equilibrium and Radner equilibrium.

##### Literature

A.Mas-Colell, M.D.Whinston, J.R.Green, Microeconomic Theory, New York, Oxford University Press, 1995, главы 6, 19.

##### Additional Literature

1. Kreps, D. A Course in Microeconomic Theory, Princeton University Press, 1990.
2. Varian H., Microeconomic Analysis, 3rd edition, W.W.Norton &Company, New York, London, 1992

##### Additional Literature

1. Laffont, J. The Economics of Uncertainty and Information. The MIT Press. 1995, гл.1-3.
2. Machina M., Choice under uncertainty: problems solved and unsolved. The Journal of Perspectives, 1, 121-154, 1987.
3. Rothschild M., Stiglitz J., Increasing risk I: A definition, Journal of Economic Theory, 2, 225-243, 1970.

#### 4.1.5. Game theory

Static games with complete information (dominance, rationalized strategies, Nash equilibrium in mixed strategies). Dynamic games with complete information (perfect equilibrium in subgames, repetitive games).

Static games with incomplete information: Bayesian equilibrium. Dynamic games with incomplete information: weak perfect Bayesian equilibrium and sequential equilibrium.

##### Literature

A.Mas-Colell, M.D.Whinston, J.R.Green, Microeconomic Theory, New York, Oxford University Press, 1995, главы 7-9.

##### Additional Literature

1. Kreps, D. A Course in Microeconomic Theory, Princeton University Press, 1990.
2. Varian H., Microeconomic Analysis, 3rd edition, W.W.Norton &Company, New York, London, 1992.

#### 4.1.6. The theory of externalities and public goods

Coordination and (in) efficiency in the economy. Unilateral and bilateral externalities. Incomplete contracts and property rights. Regulation of externalities. Public goods and community resources. Equilibrium of voluntary contributions. Lindahl equilibrium.

#### Literature

A.Mas-Colell, M.D.Whinston, J.R.Green, Microeconomic Theory, New York, Oxford University Press, 1995, глава 11.

#### Additional Literature

1. Varian H., Microeconomic Analysis, 3rd edition, W.W.Norton & Company, New York, London, 1992, главы 23-24.
2. Kreps, D. A Course in Microeconomic Theory, Princeton University Press, 1990.

#### 4.1.7 Information asymmetry

Classification of tasks with asymmetric information. Information asymmetries and market failures. Equilibria under unfavorable selection. Signaling and screening models. Exclusive screening. Hidden Actions: Optimal Contracts with Different Risk Attitudes

#### Literature

A.Mas-Colell, M.D.Whinston, J.R.Green, Microeconomic Theory, New York, Oxford University Press, 1995, главы 13-14.

#### Additional Literature

Kreps, D. A Course in Microeconomic Theory, Princeton University Press, 1990.

#### 4.1.8. Mechanism design

Formulation of the problem. Public choice function. Examples: exchange model, auctions, public goods. Mechanisms in dominant strategies. Revealing principle. Groves-Clark mechanism. Bayesian mechanisms. Optimal tax scales. The income equivalence theorem. Myerson-Satterthwaite theorem. Construction of optimal mechanisms.

#### Literature

A.Mas-Colell, M.D.Whinston, J.R.Green, Microeconomic Theory, New York, Oxford University Press, 1995, глава 23.

#### Additional Literature

Kreps, D. A Course in Microeconomic Theory, Princeton University Press, 1990.

#### 4.2. Macroeconomic theory

##### 4.2.1. The neoclassical theory of exogenous growth: the Solow model

Model assumptions and dynamics. A balanced growth trajectory. The impact of changing the savings rate. The golden rule of capital accumulation. Remnant of Solow. Solow's model and basic questions of growth theory.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2014, 2015, гл.1.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч.ред. Е. Синельниковой. – М.: Изд.дом "Дело" РАНХиГС, 2015.

#### 4.2.2. Models with infinite planning horizons and overlapping generations.

Ramsey-Kass-Koopmans model. Model assumptions. Optimization behavior of households and firms. Economic dynamics. Stationary state analysis. Welfare. Modified Golden Rule. The effect of reducing the discount rate. Analysis of the impact of fiscal policy on equilibrium and welfare. Overlapping Generation Model (Diamond Model). Model assumptions. Optimization behavior of households and firms. Aggregation. Economic dynamics. Stationary state analysis. Welfare. Possibility of dynamic inefficiency. Analysis of the impact of fiscal policy on equilibrium and welfare.

##### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2014, 2015, гл.2.

##### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

#### 4.2.3. New growth theory

Endogenous economic growth. Research and development models. The nature of knowledge and resource consumption for R&D. Endogenous savings in knowledge accumulation models. Knowledge accumulation models and central questions of growth theory. Cross-country differences in income. Extended Solow model with human capital. Empirical evidence: explaining cross-country differences in income and growth rates.

##### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2014, 2015, гл.3.

##### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч.ред. Е. Синельниковой. – М.: Изд.дом "Дело" РАНХиГС, 2015.

#### 4.2.4. Real business cycle theory

Key facts about economic fluctuations. Oscillation theory. The basic principles of building a model of the real business cycle: optimization behavior of households and firms in conditions of uncertainty; shocks in the model; "impulse-propagation" mechanism; equilibrium log linearization and model calibration.

##### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд.дом Высшей школы экономики, 2014,2015, гл.4.

##### Additional literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

#### 4.2.5. Traditional Keynesian oscillation theories

Basic Keynesian model of aggregate demand in a closed and open economy.

Alternative assumptions about wage and price rigidity and aggregate supply. Output and inflation.

Development of approaches to the construction of the Phillips curve.

##### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2014, 2015, гл.5.

##### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

#### 4.2.6. Microeconomic Foundations of Incomplete Nominal Adjustment

Lucas' imperfect information model. Macroeconomic policy and rational expectations. A pricing model in an imperfectly competitive environment. Models with gradual price adjustment (Taylor, Fisher, Caplin-Spalber models). Time-based or condition-based pricing. Inflationary inertia.

Monetary policy under conditions of incomplete price adjustment. The role of small frictions. Real stiffness. Models of uncoordinated behavior and real Nevalrasian theories.

##### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2014, 2015, гл.1.

##### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

#### 4.2.7. Consumption

Life cycle hypothesis and permanent income hypothesis. Savings and interest rate. Consumption under uncertainty: the random walk hypothesis.

Excessive sensitivity and excessive smoothness of consumption. The role of liquidity restrictions.

Savings from a precautionary motive. Consumption and demand for risky assets: the Consumption CAPM model.

##### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2014, 2015, гл.7.

##### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

#### 4.2.8. Investments

The rental value and costs of using capital. Firm value. Investment model with regulatory costs.  $q$

Tobin and investment. Investing in the face of uncertainty. Financial market imperfections and investments.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2015. Гл.8.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд.дом "Дело" РАНХиГС, 2015

#### 4.2.9. Unemployment

Theories of unemployment. Effective wage model. Shapiro-Stiglitz model. Implicit contracts. Insider-outsider models. Hysteresis. Search and matching models.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч.ред. В.М Полтеровича. – М.: Изд. дом Высшей школы экономики, 2014, 2015, гл.9.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч. ред. Е. Синельниковой. – М.: Изд. дом "Дело" РАНХиГС, 2015.

#### 4.2.10. Inflation and Monetary Policy

Inflation, money growth and interest rates. Monetary policy and the term structure of interest rates. Dynamic inconsistency of low inflationary monetary policy. A solution to the problem of dynamic inconsistency. Restrictions on monetary policy. Seigniorage and inflation. The cost of inflation.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2014, 2015, гл.10.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч.ред. Е. Синельниковой. – М.: Изд.дом "Дело" РАНХиГС, 2015.

#### 4.2.11. Fiscal deficits, public debt and fiscal policy

Government budget constraint. The principle of fiscal policy neutrality: Barro-Ricardo equivalence and its limitations. Tax smoothing. Political economy theories of budget deficits. Strategic debt accumulation. Delayed stabilization. Deficit costs. Debt crises.

#### Literature

Ромер Д. Высшая макроэкономика: учебник/ пер. с англ. Под науч. ред. В.М. Полтеровича. – М.: Изд. дом Высшей школы экономики, 2014, 2015, гл.11.

#### Additional Literature

Уикенс М. Макроэкономическая теория. Подход динамического общего равновесия. учебник/ пер. с англ. под науч.ред. Е. Синельниковой. – М.: Изд.дом "Дело" РАНХиГС, 2015.

### 4.3. History of economic thought and methodology of economic science

#### 4.3.1. Classical political economy

The emergence of the classical school (W. Petty, P. Boisguillebert). Physiocrats. "Economic table" F. Quesnay. Economic doctrine of A. Smith. The main ideas of "Principles of Political Economy and Taxation" D. Ricardo. Discussion about sales markets and the possibility of overproduction crises J.-B. Say, T. Malthus, S. Sismondi.

#### 4.3.2. Economic theory of K. Marx.

Labor alienation concept. The theory of historical materialism; concepts of productive forces and production relations. The theory of surplus value and capital. Profit rate, cost and production cost. The theory of reproduction and the laws of development of capitalism.

#### 4.3.3. German Historical School.

Friedrich List and The National System of Political Economy. "Old" and "new" historical schools. Criticism of the static approach of the classical school and the model of "economic man". "Dispute about the method.»

#### 4.3.4. Marginalist revolution.

Revolutions in economics. Forerunners of marginalism, Gossen's laws. Item Changes and Method Changes. Differences between the marginalist approach and the classic approach. The main directions ("schools") of marginalism: Austrian, Lausanne and Anglo-American.

#### 4.3.5. Institutionalism.

The emergence of institutionalism. The first works of T. Veblen. The concepts of "leisure class" and "absentee property". Research by J. Commons, W. Mitchell.

#### 4.3.6. Features of the development of economic thought in Russia.

Russian economic thought at the turn of the 19th-20th centuries: main directions and discussions The theory of markets and crises: the contribution of M.I. Tugan-Baranovsky. Model of a peasant labor economy A.V. Chayanova. Economic Discussions of the 1920s on the relationship between the plan and the market, "genetic" and "teleological" directions in planning.

#### 4.3.7. Evolution of neoclassical theory in the 1910s - 40s

The concept of monopolistic competition (E. Chamberlin, J. Robinson). Development of the neoclassical theory of welfare (A. Pigou, A. Bergson).

#### 4.3.8. J.M. Keynes and Keynesianism.

Methodological positions of J.M. Keynes. The doctrine of effective demand and the rationale for the program of state regulation. Criticism of Keynes's theory (J. Hicks, F. Hayek).

#### 4.3.9. Post-war period of development of economic thought (1950s - 70s)

Neoclassical synthesis: methodological, theoretical and ideological foundations. Hicks, Samuelson-Hansen models. The theory of economic dynamics (R. Harrod, E. Domar). Directions alternative to Keynesianism.



#### 4.3.10. New institutional theory.

Opposition to neoclassicism within economic liberalism. New institutional theory. Fundamental differences from the institutionalism of the Veblen tradition. Using some premises of neoclassical analysis. R. Coase.

#### 4.3.11. Mainstream of economic science of the XX century.

Variety of modern economics. Mainstream and heterodoxia. Homogenization and heterogenization of the mainstream.

#### 4.3.12. The evolution of the paradigm of economic theory.

The concepts of "scientific paradigm" and "research program" (T. Kuhn and I. Lakatos). Hard core and scientific hypotheses. The evolution of the paradigm of economic theory.

#### 4.3.13. Economic imperialism.

Interdisciplinary links of economic science. The model of a rational economic person: preconditions, properties, components. Application of economic analysis to non-market spheres in the history of thought, features of modern "economic imperialism».

#### 4.3.14. Development of the methodology of economic science.

Post-positivist and post-modern interpretations of economics. Economic science as rhetoric. Epistemology and Discourse Analysis.

#### Literature

Блауг М. Методология экономической науки, или как экономисты объясняют. М., 2004.

Блауг М. Экономическая мысль в ретроспективе. М., 1994.

#### Additional Literature

История экономических учений (ИЭУ). Под ред. В.С. Автономова, О.И. Ананьина и Н.А. Макашевой. М., 2013

### **Topic 5 . Economy and management of the national economy economics, organization and management of enterprises, industries, complexes industry.**

#### 5.1. Industry, industries: state and environment

State of Russian industry. Industry in the Russian economy, the sectoral structure of industry, its dynamics. Industry statistics by type of activity. Features of the development of industries and complexes. Efficiency, aggregate productivity and competitiveness of the main sectors of Russian industry.

Concentration, specialization and diversification of industrial production; cooperation and outsourcing. Features of the structures of sectoral markets in industry; competition and concentration of production. Labor market: problems of providing labor resources. Financing of industrial development, private and public investment. Types of foreign economic activity (FEA), features of international trade. Domestic and foreign investments. Global competitiveness of Russian industries. Economic sanctions since 2014, their impact on the development of industries and enterprises.

## 5.2. State regulation of industry.

Regulation and management of natural monopolies. Competitive policy. Industrial policy. Structural policy. State tax policy. Scientific and technical policy. State innovation policy. The role of the state in the regulation of foreign economic activity. The main instruments of state support for industry at the federal and regional levels. Development institutions. Federal target programs. Evaluation of the effectiveness of state policy instruments, federal, sectoral and regional programs for the development of industry, industrial complexes and clusters.

## 5.3. Organization and management of industrial enterprises.

The concept of an enterprise. Organizational and legal forms of enterprises. Small business. Enterprise vs. firm. Corporate Integration. Business groups (groups of companies), the motives of creation and the peculiarities of functioning in Russia. Assessment of the economic efficiency of an industrial enterprise; assessment of the total factor productivity. Competitiveness of a firm, methods of its assessment, directions of improvement. Problems of entry and exit of enterprises from the market.

The history of a Russian firm against the background of reforms: a socialist enterprise, a transitional firm, a market firm. Restructuring and modernization of industrial enterprises in 2000-2010. The role of external factors and motivations of the owners and top managers of the company in its evolution and modernization.

The role and consequences of privatization, tendencies of post-privatization redistribution of joint-stock property in the 1990s. Tendencies of changes in the structure of ownership and mechanisms of capital redistribution in the 2000s. Interests of economic agents and incentives to concentrate property. Various micro-models of corporate control, their institutional competition. Combining vs. separation of ownership and management in companies. The problem of "effective owner».

Corporate governance (CG) concepts and the concept of a national model. The main internal and external mechanisms of corporate governance, the peculiarities of their operation in conditions of a high concentration of joint-stock ownership. Corporate integration and corporate governance.

Meeting of shareholders: organization and activities. Board of Directors of Companies:

Composition and Real Work Practice. Replacement of the top executive management of the enterprise, the role of internal and external audit, information transparency of the business and other tools to protect the interests of minority shareholders. Dividend policy of companies.

Special types of enterprises. Enterprises with foreign participation; the influence of foreign investors on the organization of production and management, the competitiveness of enterprises.

State-owned enterprises; problems of organizing corporate governance and improving efficiency.

The concept and types of organizational structures of management (OSU) industrial production.

Organizational relations and management motivation. Centralization and decentralization of enterprise management, their ratio in Russian firms and the determining factors.

Basic control functions. Strategic company management, analysis of competitive advantages.

Marketing as a management function, modern strategies of Russian enterprises. Quality management system, ISO standards and system certification; incentives and effects of implementation and certification. Lean manufacturing system and tools; implementation incentives and problems, implementation effects. Management information systems: implementation problems and performance evaluation. Approaches to the integrated assessment of the quality of enterprise management. Quality management and increasing the efficiency and competitiveness of the business. The quality of management at Russian enterprises.

#### 5.4. Firm Behavior.

Innovative activity of a firm, types of innovations, their diversity and intensity. Factors influencing the innovation process. Innovative risks. Impact of innovation on the efficiency and competitiveness of enterprises. Investment policy of the firm. The concept of investments, their classification. Investment strategy, sources of financing. Factors, constraints, risks and incentives for investment decisions. Foreign trade activities of enterprises. Problems of enterprises entering foreign markets.

Internal and external factors affecting export activity and the scale of exports of Russian firms.

Impact of export and import activities on competitiveness and business performance.

5.5. Company finances Accounting policies in companies. Objectives and concepts of financial and management accounting. Reporting standards (IFRS, RAS). Financial results of the firm. The system of indicators for assessing the financial condition of the enterprise.

A set of financial solutions for a company at various stages of its life cycle. The principle of creating economic profit. The principle of liquidity. Capital structure of the firm. Modigliani - Miller theorems: use and limitations. Analysis of the capital structure in an imperfect market. The theory of trade-off in the choice of structure. Debt overhang and redistribution of corporate value between creditors and shareholders. The concept of a consistent selection of funding sources. Ways to raise debt capital; estimation of costs of attracting debt financing. Ways to raise equity capital; estimation of costs for equity capital.

The policy of financing the long-term development of the company. Optimal capital structure and financial leverage of the company. Factors influencing the choice of capital structure. Capital costs and investor opportunity costs. Average and marginal capital costs. Free cash flow payment instruments to owners. Assessment of the company's ability to make payments to owners.

Dividends as a signal for the investor.

Methods for assessing the economic efficiency of a firm's investment projects. Net Present Value (NPV). Internal rate of return (IRR) of the project. Identification of risk factors for an investment project. Ways to include risk in NPV analysis of a project.

Acquisition of control over a firm through mergers and acquisitions. Unfriendly takeovers. Motives of mergers and acquisitions, types of synergies, risks of value destruction. Company Acquisition Efficiency: Russian Practice.

**Applicants are strongly encouraged to familiarize themselves with the literature given in the Candidate Exam Program, as well as regularly read fresh articles on these issues in leading Russian journals:** Russian Management Journal, Economics Issues, New Economic Association Journal, Economic Policy, HSE Economic Journal.

It is also necessary to familiarize yourself with the main legislative acts governing the activities of enterprises and their management bodies in the Russian Federation.

#### Literature

1. Экономический журнал ВШЭ <https://ej.hse.ru/>
2. Вопросы экономики <http://www.vopreco.ru/>
3. Журнал Новой экономической ассоциации <https://nauchniestati.ru/jurnaly/zhurnal-novoj-jekonomicheskoy-associacii/>
4. Экономическая политика <http://ecsocman.hse.ru/ecpol/>
5. Брейли, Р., Майерс, С. Принципы корпоративных финансов. 2-ое изд. М.: Олимп-Бизнес, 2016.
6. Виленский П.Л., Лившиц В.Н., Смоляк С.А. Оценка эффективности инвестиционных проектов: теория и практика. Учебное пособие. 5-ое изд. М.: Поли Принт Сервис, 2015.

7. Экономика предприятия. Учебник для вузов. 2-ое изд. Под ред. А.Е. Карлика и М.Л. Шухгальтер. СПб: Питер, 2009.
8. Национальная экономика. Учебник / Под ред. Р.М. Нуреева. М.: ИНФРА-М, 2014. Часть III, раздел 2.1; главы 12-13, 15-16, 18, 26-27, 29, 31.
9. Экономика фирмы. Учебник. Под ред. Н.П. Иващенко. М.: ИНФРА-М, 2006.
10. Внешние механизмы корпоративного управления: некоторые прикладные проблемы / Радыгин А.Д., Энтов Р.М., Абрамов А.Е., Межеряупс И.В. и др. // Научные труды ИЭПП, № 104Р. М.: ИЭПП, 2007.
11. Внутренние механизмы корпоративного управления: некоторые прикладные проблемы / Под ред. А.Д. Радыгина. М.: изд. ДЕЛЮ, 2009.
12. Очерки модернизации российской промышленности: поведение фирм / Под ред. Б.В. Кузнецова. М.: изд. Дом НИУ ВШЭ, 2014.
13. Паппэ Я.Ш., Галухина Я.С. Российский крупный бизнес: первые 15 лет. Экономические хроники 1993-2008 гг. М.: Изд. дом ГУ ВШЭ, 2009.
14. Российская корпорация: внутренняя организация, внешние взаимодействия, перспективы развития / Под ред. Т.Г. Долгопятовой, И. Ивасаки, А.А. Яковлева. М.: Изд дом ГУ ВШЭ, 2007 (2-е изд. М.: ЗАО «Юридический Дом «Юстицинформ»», 2009).
15. Российская промышленность на этапе роста: факторы конкурентоспособности фирм / Под ред. К.Р. Гончар, Б.В. Кузнецова. М., Изд. Дом НИУ ВШЭ, 2008.
16. Российская экономика. Тенденции и перспективы (ежегодные выпуски). М.: Институт Гайдара. Интернет-адрес: <http://www.iep.ru/en/publications/119/category/25/page-6.html>
17. Стратегические финансовые решения компаний на развивающихся рынках капитала / Под ред. И.В. Ивашковской. М.: КНОРУС, 2019.
18. Статистические сборники: Инвестиции в России, Промышленность в России, Российский статистический ежегодник, Россия в цифрах (издаются ежегодно или раз в 2-3 года). Статистические классификаторы: ОКВЭД, ОКФС, ОКОПФ

## **Topic 6. Economy and management of the national economy economics, organization and management of enterprises, industries, complexes service sector**

### 6.1. Services in a market economy

The role and place of the service sector in the modern economy. The fundamental difference between a service and a product. Dynamics of the share of production of services in the GDP of developed countries; dynamics of the share of people employed in the service sector.

Classification and characteristic features of the main types of services presented in the classifier of types of economic activities. Intelligent services. Modern theories of post-industrial society and the characteristic features of the development of the service sector. Service sector and quality of life of the population, their mutual influence.

Main methods of financing services; market and non-market services.

Economic foundations of the functioning of non-profit organizations in the service sector. The main organizational forms of management of these enterprises.

### 6.2. State regulation of the service sector

Arguments for government intervention in service markets. Forms of intervention: regulation, financing, production. Examples of government intervention. State protectionism of the development of socially significant organizations in the service sector. Forms of state support for service enterprises. Public-private partnership in the service sector.

### 6.3. Features of the economy and management of organizations in the service sector

Resources of enterprises in the service sector and their types. The structure of economic resources in the service sector. Sources of funding: consumer payments for services, government funding, charitable sources. The role and characteristics of human capital in service organizations. Performance assessment and staff motivation in the service sector. The role of intellectual property. Features of management and marketing in service organizations. Basic methods and approaches to assessing the efficiency of production of services. Cost minimization methods, cost-effectiveness analysis, cost-benefit analysis, cost-benefit analysis. Social discount rate.

### 6.4. Social services and their features.

Types of social services. External effects of consumption of social services. The growth of spending on social services in the state budget and its reasons. Commercial and non-profit social service organizations.

### 6.5. The market of educational services and its features.

Market failures and equity issues. Education as an investment for the individual and for the state. The role of the state in education. Quasi markets in education. Types of state and municipal educational organizations and mechanisms for their financing. Budgetary financing of educational organizations. Extra-budgetary activities of educational organizations. Paid educational services. Taxation in the field of educational services. Directions of modern education reforms in Russia and the world.

### 6.6. Medical services

The demand for medical services as a derivative of the demand for health. Forms of state regulation of the medical services market. Types of health financing systems. Funding mechanisms in health financing systems. Pooling mechanisms in health financing systems. Health insurance intermediaries. Mechanisms of interaction between providers and buyers of health care in various health financing systems.

Directions of reforming health financing systems in the world. Prospects for combining compulsory and voluntary health insurance. Forms of participation of the population in paying for medical care and prospects for their development.

Directions of changes in the organization of medical care in advanced economies.

The main directions of modernization of the healthcare system in Russia. Innovations in the healthcare financing system in Russia. Prospects for the development of the drug supply system for the population.

### 6.7. Features of cultural services, their types.

Reasons for state intervention in the sphere of culture. Baumol's disease in the production of cultural services. Ways of state intervention in the cultural services market.

Direct and indirect state financing of cultural services. Voucher financing of consumers of cultural services and its possible consequences.

### 6.8. The housing services market and its features.

Justification of the reasons for government intervention in the housing market.

Forms of government intervention. Subsidies to a private housing manufacturer services. Limiting prices for housing services. The state as a manufacturer of housing

services. Targeted consumer subsidies. Directions of reforming housing and communal services in Russia.

#### 6.9. Social assistance and social insurance services.

Social assistance services and social insurance: fundamental differences Categorical and targeted principles for the provision of social assistance services: advantages and disadvantages. Horizontal and vertical efficiency problems in provision of social assistance services. Examples of categorical and targeted benefits on social assistance.

Arguments for Social Security in a Market Economy. Benefits of social insurance over private.

Examples of social insurance. Pension insurance services, the need for states participation.

Benefits of state pension insurance over private.

Alternative approaches to building pension insurance systems: distributive and funded principles.

Their advantages and disadvantages. Directions of pension reforms in Russia.

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## **Topic 7. Economy and management of the national economy**

### 7.1. Theoretical and methodological foundations of labor economics.

Labor as an economic category. Interrelation of the concepts of "labor", "labor force", "economically active population". Place of labor in the system of factors of production. Classification of the labor structure of the population. Employment. Economically active and economically inactive population. Employed and unemployed population. Labor resources.

### 7.2. Supply and demand in the labor market

Labor supply and labor force formation. Measuring labor supply.

Making a decision to enter the labor market: the choice between consumption and leisure, the influence of preferences and unearned income. Reserve wages. Income effect and substitution effect. Labor supply elasticity. Labor supply with fixed costs associated with the job. Impact of taxation and social programs on labor supply. Individual and market labor supply. Labor supply, taking into account household production, family labor supply. Features of the supply of labor for



women and men, young and old workers. Labor supply throughout the life cycle. The decision to retire. Labor demand as a decision on the optimal number of employees at the enterprise. Profit maximization, production function and labor demand. Interchangeability of labor and capital. Labor demand in the short and long term. Substitution and economies of scale. Labor demand of the firm, industry and market.

Elasticity of labor demand. Cross elasticity of labor demand. Derived demand laws. Demand for interchangeable and complementary types of labor. Influence of quasi-fixed costs on personnel structure. Features of the demand for labor in the Russian economy.

### 7.3. Labor market equilibrium and unemployment

Unemployment as a social and economic phenomenon. Types of unemployment. Unemployment rate and methods of its determination. Latent forms of employment and unemployment.

The labor market search model and frictional unemployment. Structural unemployment.

Unemployment as a dynamic characteristic of the labor market. The structure and duration of unemployment. Factors of the duration of unemployment. Unemployment and Vacancies: Labor Market Tensions. Rigidity of wages. Hysteresis and an explanation for persistent unemployment.

Inflation and unemployment. Impact of unemployment on social and economic development.

Trends and structure of unemployment in transition economies. Socio-economic specifics of Russian unemployment.

Imperfect competition in the labor market: restrictions on workers' mobility, discrimination, trade union activity and monopsony.

Discrimination in the labor market: concept and main types. Employers' propensity to discriminate.

Discrimination in the monopsony market. Imperfect information and statistical discrimination.

Types of discrimination: differences in wages, in terms of employment, in the possibility of choosing a profession. Occupational segregation and its measurement. Discriminatory wage differences and how to measure them. The role of segregation in shaping the wage gap.

Impact of discrimination on economic efficiency. Anti-discrimination policy in the labor market: goals, directions and tools.

### 7.4. Labor compensation and productivity

Wages as the "price of labor". The role of wages in fluctuations in supply and demand in the labor market.

Theoretical foundations of wages and differentiation of monetary incomes of the population.

Income and its types. Population income structure. Wages as the basis of household income. Non-monetary forms of remuneration.

The reasons for the differences in wages. Employee heterogeneity: differences in the level of accumulated human capital and non-competitive groups in the labor market. Diversity of jobs: working conditions, differences in status, the possibility of receiving social benefits.

The hedonistic theory of wages. Compensatory differences in wages. Occupational safety standards and compensation payments.

Features of sectoral, professional, regional differences in wages in the Russian economy. Trends in wage inequality.

Labor productivity and efficiency. Average product of labor. The marginal product of labor.

Marginal labor productivity and labor demand. Sources that determine the level and dynamics of performance. The influence of the economic, financial, tax and social policies of the state on the level and dynamics of labor productivity.

Theories of stimulation and motivation of labor - content, common and different in approaches. Incentive contracts: problems of uncertainty and asymmetry of information. The boss-subordinate model.

In-house wage systems. Piecework and time wages. Effective wages. Non-monetary incentives and intrinsic motivation.

The content of the concept of "personnel management". Forms of personnel management and productivity improvement: teamwork, tournaments, career incentives.

Domestic and foreign experience in stimulating labor in a market economy. Modern models of wages and prospects for their use in Russia.

#### 7.5. Investments in human capital and their effectiveness.

Human capital - the content of the concept and the relationship with the quality of labor. State investment in human capital and the quality of labor used in society.

Assessment of human capital: the discounting method as the basis for calculating the price of human capital, calculating the return on investment in human capital. Reproduction of human capital throughout the life cycle.

Making an individual decision about investment in education: an analysis of benefits and costs.

Human capital investment model. Methods for assessing the effectiveness of individual investment in education: net present value and internal rate of return. Education as a signal on the labor market.

Assessing the impact of education.

General and specific human capital. Firm investment in human capital. Professional training and professional development. Forms and types of staff training. The system of continuous education of the population.

#### 7.6. Labor market mobility

Overflows in the labor market. Types of labor mobility. "Mismatch" between worker and workplace as a cause of labor mobility. Labor demand shocks and worker mobility. Wages as an incentive to change jobs. Intercompany mobility, turnover and layoffs. Labor turnover.

External and internal labor markets, their interaction. Reasons for the formation of internal markets: investments in specific human capital, transaction costs, selection problems. Internal markets and intra-company personnel management structures. Service stairs. Intra-company mobility.

Territorial mobility and labor migration. Determinants of an individual migration decision. Internal and external migration. Major migration flows in Russia and in the world: directions and intensity.

Impact of migration on the labor market and the socio-economic situation of the donor and recipient territories. State regulation of labor migration.

#### 7.7. State policy and labor market regulation

Labor market imperfections and government regulation. Goals and methods of regulation. Labor market modeling and forecasting. The system of state bodies responsible for the development and implementation of labor and employment policies.

Basic principles of state regulation of wages and income. Wage regulation options - state and collectively - contractual. The role of the state and trade unions in the regulation of wages. The minimum wage level as an instrument of government regulation. The impact of the minimum wage on the level of wages and employment.

Employment policy. Passive and active labor market policies. Impact of active labor market policies on income and employment. Employment protection legislation.

The role of the labor code of the Russian Federation in the regulation of social and labor relations.

Activities of state employment services. Insurance programs and unemployment benefits. Programs

to stimulate the demand for labor and increase the competitiveness of the unemployed. National models and features of labor market regulation.

#### 7.8. Social partnership and trade unions

Preconditions for the emergence of social partnership, its role in the system of labor relations. The mechanism of social partnership. Anglo-Saxon, Germanic, Scandinavian, Japanese and Social Democratic models. The role of the International Labor Organization in the development of the principles of social partnership.

Social partnership: subjects, functions, principles, level of negotiations. Tripartism. Collective bargaining: participants, goals, reaching an agreement. Strike activity: probability and duration. The role of trade unions in the system of social partnership. The influence of trade unions on wages, employment, labor productivity, economic efficiency.

Preconditions for the formation of social partnership in Russia. Trade union movement in Russia: history and modernity. Formation of employers' organizations. The role of the state in the system of social partnership.

Russian practice of concluding collective agreements and agreements. Content and structure of the collective agreement. Types of agreements. The role of the master agreement. Trilateral Commission for the Regulation of Social and Labor Relations.

Factors hindering the formation and main directions of development of social partnership in Russia.

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## **Topic 8 . Finance, money circulation and credit**

### 8.1. Formation and development of the financial market

#### 8.1.1. Fundamental concepts of the financial market

The financial market and its structure. Money market and capital market. Primary and secondary market. Exchange and OTC market. Equity and debt market. Financial market development trends. Models of building financial markets and their characteristics (Anglo-Saxon, continental and Scandinavian models). The advantages and disadvantages of each model. Characteristics of the Russian financial market model.

The securities market as part of the financial market. The concept of the securities market, its essence, functions and place in the system of financial markets. The ratio of the securities market, the credit market and the budget in the redistribution of monetary resources. Classification of securities markets. The main trends in their development in the world and in Russia.

Development of processes for securitization of financial markets and financial assets. Securitization transactions structuring. The main participants in the securitization transaction, their role and functionality. Reasons for the development of securitization processes.

Security concept. Fundamental properties of securities. Classification of securities. Risk-reward ratio in the securities market. Risk measurement indicators and risk hedging methods. The effect of the investment time horizon and its impact on the risk and return indicators. The efficiency of investments in the securities market. Investment performance indicators (Sharpe ratio, Trainor ratio, Jensen index, and others). Modern risk assessment models (ARCH, GARCH, EWMA).

Fundamental and technical analysis in the securities market.

Fundamental analysis (concept, principles, classification and characteristics of the main indicators). Technical analysis (main methods and the limits of their application).

#### 8.1.2. Characteristics and features of the development of the main segments of the securities market

##### 8.1.2.1. Stock market

Development of stock markets in the world and in Russia (volumes, dynamics, regulation). Stock indices. Methods and problems of calculus. Correlation of markets.

Types and classification of shares. Ordinary and preferred shares, their properties and differences. Shares with different voting rights. Voting at the meeting of shareholders. Decision making procedure at shareholders' meetings. Simple and cumulative voting system for board selection. Stock pricing models. Gordon's model. Split and consolidation of shares. Acquisition and redemption of shares, the purpose of these operations. Stock investment returns: dividend and total stock returns. Issue of shares (IPO, SPO, PPO). Public and private placement of shares. Priority rights of shareholders in the additional issue of shares.

#### 8.1.2.2. Debt securities market

Bond market. Temporary structure of interest rates. Yield curve. Theories of the term structure of interest rates (theory of pure expectations, theory of liquidity preference, theory of market segmentation).

Company bonds. Bond characteristics (term to maturity, McCauley duration, modified duration). Development of the bond market in the world and in Russia. Eurobond market and its characteristics. Types of bonds. Secured and unsecured bonds, subordinated bonds. Perpetual bonds. Callable and returnable bonds. Coupon and zero coupon bonds. Varieties of coupon bonds. Indexed bonds.

Bond pricing. Bond yield (coupon and full yield), yield determination models. Bond risks and their classification. Interest rate risk and methods of hedging interest rate risk. Technical and real defaults on corporate bonds. Bond ratings. Investment grade bonds and speculative bonds. Procedure for organizing and placing bonds: auction at a price, auction at a coupon rate, formation of an order book.

Government debt obligations. Scale and peculiarities of emission in the world and in Russia. Role in the economy (financing the budget deficit, monetary regulation). Description of GKO and OFZ. OFZ for the population.

The concept of a bill. Classification of bills. Objectives and practice of using promissory notes in Russian and foreign commercial practice.

Futures contracts. Futures contracts specification. The mechanism for organizing futures trading. Margin fees. Futures strategies. Hedging with futures contracts. Futures hedging of a position on an underlying asset. Basis risk. Hedge ratio.

General characteristics of the option contract. Organization of option trading. Options premium determination models. Option strategies. Hedging with options.

Factors affecting the option price. Upper and lower estimates for the premium. Put call parity. Arbitration-free evaluation principle. Fundamental asset valuation theorem. Cox-Ross-Rubinstein model. Wiener processes. Lemma Ito. Black-Scholes-Merton model.

Swaps and forward rate agreements. Types of swaps. Risks arising from swaps. Estimating the cost of swaps.

Financial engineering - the creation of financial products with specified properties. Convertible bonds, their characteristics and functioning mechanism. Convertible bond pricing (intrinsic and convertible value, market value of convertible bonds). Conversion rate and conversion price.

Methods for stimulating conversion.

Structured financial products. The mechanism of their construction and functioning.

#### 8.1.2.4. Portfolio management.

The expected return and risk of a portfolio of securities. Markowitz model. Efficient portfolio boundary. Separation theorem. Market portfolio.

The variance of a portfolio of two assets and an arbitrary number of assets. Admissible and effective set. Taking into account the possibility of risk-free borrowing and / or lending. Tangent portfolio.

Utility function. Bernoulli's principle. The structure of indifference curves. Selection of the optimal portfolio.

Financial Assets Pricing Model (CAPM). Capital Market Line (CML). Asset Market Line (SML). Beta coefficient. Sharpe model. Arbitration Pricing Theory (APT). Portfolio management strategies. Passive and active strategies. Methodology for determining portfolio risk VAR. Using derivatives for portfolio management.

### 8.1.3. Participants in the securities market.

Professional participants in the securities market

Evolution and structure of professional participants in different countries and problems of their development in Russia.

Commercial banks and other credit organizations in the securities market: status, operations, main restrictions, areas of competition with broker-dealer companies and other non-bank professional participants in the securities market (Russian and international practice).

Risk management system for professional participants in the securities market.

Issuers and investors in the securities market

Classification of issuers. Types of financial and economic needs and interests that necessitate the issue. The relationship between the qualitative and quantitative parameters of the issue and the nature of the financial needs and interests of the issuers.

Comparative characteristics of issuers in the Russian market and in international practice.

Classification of investors in securities. The types of financial and economic needs that determine the investment of funds and securities are investment objects that meet these needs. Population as investors. Collective investment concept. Institutional investors (investment funds, pension funds, insurance companies): organizational and legal status, characteristics of the turnover of funds, interests, restrictions on activities in the stock market, the volume and structure of investments in securities. Direct investors in securities. Features of investors and their interests in Russian practice in comparison with international practice.

Stock Exchange.

The main trends in the development of stock exchanges in the world (ownership structure, features of the organizational and legal structure, competition, trading technologies, depository and clearing infrastructure). Development problems of stock exchanges in the Russian Federation.

### 8.1.4. Regulation of the securities market.

Regulatory functions of the state in the securities market: Russian and international practice. Self-regulatory organizations. Comparative characteristics of the practice of self-regulatory organizations in Russia and in international practice. The structure of securities legislation and its relationship to other types of legislation governing financial markets. Comparative characteristics of the most important provisions of securities legislation in Russian and international practice.

Professional ethics of stock market participants. Basic ethical principles. The most important ethical rules used in the Russian securities market and in international practice: comparative characteristics. Issue of securities.

Classification of emissions. Analysis of the issuer in the initial placement of securities. Valuation of securities in the primary market. Construction of securities.

The concept and functions of underwriting. The basics of the underwriter. Issue syndicates.

Literature

1. З.Боди, А.Кейн, А.Маркус. Принципы инвестиций. М. Вильямс, 2008.

2. Буренин А.Н. Форварды, фьючерсы, опционы, экзотические и погодные производные. М.: НТО им. С.И.Вавилова, 2008.

#### Additional Literature

1. Ф.Фабозци. Управление инвестициями. М.: Инфра-М, 2000г
2. Халл Д. Опционы, фьючерсы и другие производные финансовые инструменты. М.: Вильямс, 2008.

#### Additional Literature

1. Бэр, Ханс Питер Секьюритизация финансовых активов – инновационная техника финансирования банков; пер с немецкого – М.: Волтерс Клувер, 2006.
2. Курочкин С.В. Функции выплат, реализуемые с помощью опционных стратегий // Экономика и математические методы, 2005, т. 41, № 3.
3. Облигационный рынок: анализ тенденций и перспектив: монография / под науч. Ред. Т.В. Тепловой. – М.: ИНФРА-М, 2016
4. Панджер Х. (ред.) Финансовая экономика. М.: Янус-К, 2005.
5. Рынок ценных бумаг, под общей редакцией Н.И. Берзона. М.: Юрайт, 2013.
6. Шарп, Г.Александр, Д.Бейли Инвестиции М.: Инфра-М, 2013.
7. А.С.Шведов. Теория эффективных портфелей ценных бумаг. М., ГУ-ВШЭ, 1999.

#### Scientific Journals

Financial Analysts Journal

Journal of Portfolio Management

Journal of Finance

Journal of Investment Management

#### 8.2. Banks, banking and risks

1. Functions of central banks. Comparison of the role and functions of central banks of several countries. The role of the central bank in ensuring the stability of the country's monetary system.
2. The essence of the loan. Classification of loans. Credit transaction as the basis of credit. Credit risks. Classification. Assessment methods. Main components of credit risk assessment models.
3. Active bank operations. Classification. Appointment. Traditional and unconventional active operations. What is the peculiarity of non-traditional banking operations. Classification.
4. Bills and their classification. Savings and certificates of deposit. Currency operations. Market risks and their management.
5. Resource base of a commercial bank and methods of its development. Capital adequacy concept, capital management. Capital adequacy ratios. Calculation of capital adequacy in accordance with the Basel Accords.
6. Innovations in banking. New banking products and services. Classification. Creation technology. Implementation methods. Risks of new products and services: trends, assessment, implementation.
7. Concepts and types of financial risks. Risk classification. Ways to protect against risks. Influence of risks on indicators of profitability and capital adequacy.
8. Risk of liquidity of a commercial bank, liquidity position, liquidity ratios and their characteristics in Russia and under the Basel agreements.
9. Credit ratings as a measure of risk. Classification. Assessment methods. Rating agencies. External and internal ratings. Rating models: concept, principles of construction.
10. Operational risks. Russian legislation and recommendations of the Basel Committee. Classification of operational risks. Models.

## Literature

1. Астрелина В.А., Бондарчук П.К., Шальнов П.С. Управление ликвидностью в коммерческом банке. - М.: ИД «Форум»: «Инфра-М», 2012.
2. Горелая Н.В. Организация кредитования в коммерческом банке. - М.: ИД «Форум»: «Инфра-М», 2012.
3. Горелая Н.В., Карминский А.М. Основы банковского дела. - М.: ИД «Форум»: «Инфра-М», 2013.

## Additional Literature

1. Карминский А.М. Кредитные рейтинги и их моделирование. М.: ИД НИУ ВШЭ, 2015
2. Энциклопедия финансового риск-менеджмента. /Под ред. А.А. Лобанова и А. В. Чугунова. – М.: Альпина Паблишер. – 2009.

## 8.3. Insurance

Insurance coverage and insurance fund. Sources of the formation of the insurance fund in modern conditions. Insurance as an economic category. The role of insurance in market conditions. Transformation of insurance functions in modern conditions. Insurance as an economic institution.

Risk as the basis of insurance relationships.

Risk classification. Qualitative and quantitative risk assessment. Risk assessment and forecasting methods. Indicators used in risk assessment. The concept and signs of insurance risk. Classification of potential risks, identification and assessment of risks. The insurer as a subject of risk management. Selection of risks accepted for insurance. Underwriting. Insurance portfolio. Breakdown of risk within a portfolio. Insurance portfolio management.

Organizational foundations of risk management in an insurance company. The place of the enterprise in risk management. Forms of carrying out preventive measures. Alternative methods of risk management.

General and specific legislation in the field of insurance. The main directions of improving the insurance legislation. The basic principles underlying the insurance contract and their implementation in modern conditions. Contents of the insurance contract. Essential terms of the contract and features of their implementation in various branches of insurance. The problem of unifying the terms of contracts. Types of policies, their advantages and disadvantages. Termination of the insurance contract. Recognition of the contract as invalid. Resolution of disputes arising from the insurance contract. Subrogation.

## Insurance services and insurance premium

Insurance service as a form of insurance coverage in market conditions. Factors determining society's need for insurance services. Use value and cost of insurance services. The principle of equivalence of mutual obligations of the policyholder and the insurer, the problem of ensuring it in modern conditions. Insurance rate in Russia.

The composition and structure of the net premium, the methodology for its determination, ways of optimization. Risk premium and risk premium. Methods for calculating insurance premiums for mass types of insurance. Modern approaches to the differentiation of insurance premiums. General principles and methods for calculating the net premium for individual risks. "Bonus-Malus" system. Gross premium. Methodology for calculating the load to the net premium. Discussion issues of the composition and structure of the load. Types of insurance premiums and methods of payment.



Factors determining the structure and size of the premium. The role of the insurance premium in the risk management of the insurance company.

Traditional forms of organization of the insurer. Problems of choosing a form of ownership when organizing an insurance company. Organizational and legal forms of the insurer in the context of globalization and information revolution. A combination of commercial and mutual insurance. Prospects for mutual insurance in Russia. FIGs and insurance companies. Captive insurance. The insurer as a financial intermediary. The problem of specialization of insurers. Diversification of insurance activities.

Insurance companies in the system of monetary relations.

Insurer's monetary resources and their sources. Financial potential. Critical points of money turnover of the insurance company. The structure of income and expenses of domestic insurance companies. Insurance company profit. Insurance reserves: problems of formation and use.

An insurer as an institutional investor. Macroeconomic significance of investments of insurance companies. The current mechanism and problems of the investment activity of the insurer.

The solvency of the insurance company. Foreign and Russian experience in assessing solvency.

Problems of ensuring the financial stability of insurance companies. Insolvency and bankruptcy of the insurer.

Rating of insurance companies: foreign and domestic practice.

Insurance types.

Insurance of indirect risks and its place in the system of insurance of property interests of legal entities. Insurance of land vehicles. Insurance civil liability of vehicle owners. Compulsory and voluntary motor third party liability insurance. Ship insurance and ship owners liability insurance. Air transport insurance. Space risks insurance. Agricultural insurance. Environmental insurance and its features.

Property insurance of citizens. Life insurance. Specific characteristics of life insurance contracts.

Accident insurance (compulsory insurance, insurance at work, voluntary insurance). Health insurance. Compulsory and voluntary health insurance (VHI).

Employer's liability insurance. Professional liability insurance. Manufacturer's liability insurance for product quality and its importance in a market economy. Cargo insurance and carrier liability insurance

Reinsurance.

The concept of the capacity of the insurance company and the insurance market. The necessity and importance of reinsurance in modern conditions. Reinsurance and financial stability of an insurance company. Influence of the cost of reinsurance on the insurance premium. Factors affecting the amount of own retention. Reinsurance classification by the nature of the relationship between the assignor and the reinsurer. Optional and contractual coverage. Optional-obligatory operations (open cover). Reinsurance pools.

Proportional contracts as agreements on the division of responsibility in relation to the insurance object. Excess reinsurance (excess amounts) and its application. Quota Reinsurance. Reinsurance commission and its type. Bonus. Features of mutual settlements.

Redistribution of liability for losses through disproportionate contracts. Determination of the scope of liability of reinsurers for losses of assignors. Systems for limiting the liability of reinsurers for insured events that have occurred, concluded contracts, and filed claims. Outgoing portfolio and premium reserve. Reciprocity in reinsurance.

Reasons and significance of alternative re-insurance at the present stage.

The role of reinsurance in the functioning of international insurance markets. Reinsurance as a means of strengthening national insurance markets. Negative aspects of the development of reinsurance ties. Modern problems of the world and domestic reinsurance markets.

#### Additional Literature

1. Бланд Д. Страхование: принципы и практика: – М.: Финансы и статистика, 1998.
2. Основы страховой деятельности: Учебник / Под ред. Т.А. Федоровой –М.: БЕК, 2003.
3. Пфайффер К. Введение в перестрахование: – М.: Анкил, 2000, – 156стр.
4. Страхование: Учебник. / Под ред. В.В. Шахова – М.: Анкил, 2002.
5. Теория и практика страхования. Учебное пособие. – М.: Анкил, 2003.
6. Турбина К.Е. Тенденции развития мирового рынка страхования: – М.: Анкил, 2000. – 320 с.
7. Юлдашев Р.Т. Страховой бизнес: – М.: Анкил, 2000, – 265 стр.

#### 8.4. CORPORATE FINANCE

1. The concept of value in financial management. The modern role of the financial service. Provide concepts and differentiate between investment and financial decisions. Give an alternative classification of the company's solutions. What is the economic sense in dividing capital into debt and equity? The theory of the hierarchy of funding sources (pecking order theory). What market imperfections underlie the pecking order? The role of capital structure theories for decision-making practice in a company.
2. The economic meaning of the discount rate. Principles of constructing a discounted cash flow model. What is FCF Free Cash Flow? What is the FCFE shareholder flow and how is it different from the FCFF investor flow? How does the adjusted present value method differ from the net present value method?
3. Gordon's model. Prerequisites for its application. Analysis of the true value of a share of a company with an unstable growth rate. How should the yield curve be applied in analyzing the value of bonds? It is believed that the yield to maturity should be considered by investors when making decisions. Discuss the advantages and disadvantages of YTM alternative metrics.
4. Methods for analyzing the effectiveness of investment projects, their advantages and disadvantages. How to evaluate the effectiveness of a project taking into account three financial management metrics: cost / profitability, risk, liquidity. NPV criterion for making investment decisions.  
The indicator of the internal rate of return for choosing a project: mistakes that a manager can make in this situation and how to fix them
5. Basic assumptions of the financial asset pricing model (CAPM). Diversification as a mechanism that allows only systematic risk to be taken into account within the CAPM model. Empirical evidence for the failure of the CAPM model. Differences between the arbitrage pricing model and the CAPM model (premises, model derivation, empirical research). Discuss the possibilities and challenges of applying pricing models in closed companies.
6. Models of Modigliani and Miller. The preconditions that allow investors in the Modigliani-Miller model to form "homebrew leverage"? What's the meaning to explain the capital structure of the company has Modigliani and Miller's interpretation of weighted average costs? How are static capital structure trade-off theories different from dynamic ones? The problems of applying the theory of compromise in modeling decisions about financing in a company.
7. Dividend policy. Theories of dividend policy and their conclusions. Discuss the premises behind each theory. What is the signaling content of dividends and the effect of client groups, and what is their impact on dividend policy? What can explain the payment of zero dividends with high profits? What is the essence of the residual dividend payment policy?

8. What transactions does the corporate control market cover? Synergy effect. Methods for quantifying synergies in corporate finance. The effect of cost destruction in mergers and acquisitions. Imaginary motives for mergers and acquisitions. Takeover mechanisms and defense mechanisms against hostile takeovers.

9. Business value assessment. Business value is often used in conjunction with alternative metrics when analyzing company performance. Discuss alternative metrics. Can it be argued that an analysis of the cost of equity based on free cash flow and based on dividend flow will give the same result?

How to calculate the value of a Russian traded and non-traded company, a mature, dynamically growing and new company that has not yet passed the break-even point? If the values determined by the buyer / investors and the seller differ, which one is true, what should be done?

10. Corporate governance, the issues it covers. The main directions of its improvement. Distribution of the roles of owners / shareholders, board of directors, management. Discuss the role of agency conflict. How does asymmetric information affect the decision to issue / repurchase shares?

#### Literature

1. Grinblatt/Titman. Financial Markets and Corporate Strategy. McGraw Hill. 2nd edition 2002.
2. Brealey/ Myers. Principles of Corporate Finance. 10th Edition., 2011.
3. Berk/DeMarzo. Corporate Finance. Pearson: 3rd edition, 2014.

#### Additional Literature

1. Copeland T., Weston J. and Shastri K.: Financial Theory and Corporate Policy. 4th edition. 2005

#### Additional Literature

1. Ross S., R.Westerfield, J.Jaffe. Corporate Finance. 10th Edition. IRWIN-McGraw-Hill. 2010.
2. Damodaran A. Applied Corporate Finance. Wiley&Sons. 4-th edition. 2014

### **Topic 9. Accounting, statistics**

#### 9.1. Multidimensional random variable

Multidimensional random variable. Two-dimensional discrete random variables. One-dimensional (marginal) distributions. Conditional distribution law of one of the one-dimensional components of a two-dimensional discrete random variable. Two-dimensional continuous random variables. Probability density function of a two-dimensional continuous random variable and its properties. The distribution function of a two-dimensional random variable and its properties. Distribution densities of individual quantities forming a two-dimensional continuous random variable (marginal distributions).

Conditional distribution law of one of the one-dimensional components of a two-dimensional random variable. Expression of conditional distribution densities through unconditional. Probability / density multiplication theorem for discrete / continuous random variables. Independence of random variables. The relationship between the correlation / non-correlation of random variables and their dependence / independence. Initial and central moments of order  $k + s$  of a two-dimensional random variable. Calculation for discrete and continuous random variables. Most applicable characteristic. Covariance (correlation moment) of two random variables. Its properties. Connection with the mathematical expectation of the product and the variance of the sum of random variables. Correlation coefficient and its properties. The concept of uncorrelated random variables. The relationship between the correlation / non-correlation of random variables and their dependence / independence. Two-dimensional normal distribution law. Its parameters. Probability density

function. A theorem on the relationship between uncorrelatedness and independence of two normally distributed random variables.

#### Literature

1. Теория вероятностей и математическая статистика: учеб. пособие/ Мхитарян В.С., Трошин Л.И., Астафьева Е.В., Миронкина Ю.Н./ под ред. В.С. Мхитаряна. – М.: Си-нергия, 2013, Главы 1-4.

#### Additional Literature

1. Вентцель Е.С. Теория вероятностей. – М.: «Академия», 2005, Главы 1-4.
2. Кремер Н.Ш. Теория вероятностей и математическая статистика: Учебник для вузов. – М.: ЮНИТИ-ДАНА, 2001, Главы 1-2.
3. Вентцель Е.С., Овчаров Л.А. Задачи и упражнения по теории вероятностей. – М.: Высшая школа, 2006. – Главы 1-4.

### 9.2 ANOVA

One-way analysis of variance. Deterministic and random models (models M1 and M2). Dispersion decomposition formula. Testing the hypothesis about the influence of factor A on the effective indicator Y. Testing the hypotheses about the value of the general average and the equality of several averages. Estimation of the parameters of the one-factor dispersion model.

Two-way analysis of variance. Random, deterministic and mixed models. Dispersion decomposition formula. Estimation of the parameters of the two-factor dispersion model. Two-way ANOVA and its purpose. Decomposition of the total variation into components due to the influence of factors A, B and their interaction (AB). General view of the model. Testing the hypothesis about the influence of factors A, B, the interaction of factors (AB) on the resultant sign Y. The concept of three-factor analysis.

#### Literature

1. Теория вероятностей и математическая статистика: учеб. пособие/ Мхитарян В.С., Астафьева Е.В., Миронкина Ю.Н., Трошин Л.И. / под ред. В.С. Мхитаряна. – М.: Синергия, 2013, Глава 11.
2. Катышев П.К., Пересецкий А.А. Задачи с решениями по вероятности и статистике для экономистов: в 2 ч. – М.: Изд. Дом ВШЭ, 2014.

#### Additional Literature

1. Paul Newbold, William L. Carlson, Betty M. Thorne. Statistics for Business and Economics. – 8 th ed. Pearson, 2013 – Chapter 15

#### Additional Literature

1. Robert V. Hogg, Elliot Tanis, Dale Zimmerman. Probability and statistical inference. - 9 th ed. Pearson, 2015 – Chapter 9.
2. David R. Anderson, Dennis J. Sweeney, Thomas A. Williams Statistics for Business and Economics. 11th ed. South-Western, Cengage Learning, 2011 – Chapter 13.

### 9.3. Multiple correlation analysis.

Measurement scales and types of indicators in the study of multidimensional relationships. Point estimates of paired, partial and multiple correlation coefficients, verification their significance and interval estimation Construction of confidence intervals

communication parameters. Study of nonlinear relationships between variables. Odds correlations of Spearman, Kendall, Fechner coefficient, etc. Correlation ratio and the peculiarities of its use to study nonlinear relationships between features.

#### Literature

1. Айвазян С.А., Мхитарян В. С. Прикладная статистика. Основы эконометрики. – Т.1: Теория вероятностей и прикладная статистика М.: ЮНИТИ-ДАНА, 2001, С.24-50.

#### Additional Literature

1. Дубров А.М., Мхитарян В.С., Трошин Л.И. Многомерные статистические методы.– М.: Финансы и статистика, 2011. Глава 3, с. 71-90.
2. Мхитарян В.С., Архипова М.Ю., Дуброва Т.А., Сиротин В.П. и др. Эконометрика: учеб./ под ред. В.С. Мхитаряна. – М.: Проспект, 2012. Гл.1. С. 5-29.
3. Плис А.И., Сливина Н.А. Практикум по прикладной статистике в среде SPSS. – М.: Финансы и статистика, 2004. С.9-58.

#### 9.4. Dimension reduction methods.

Component and factor analysis. Model, mathematical justification and algorithm of the method of principal components. Component analysis as a method of multivariate statistical analysis. Model, mathematical justification and algorithm for factor analysis. Expert-statistical method of dimensionality reduction.

#### Literature

1. Айвазян С.А., Мхитарян В.С. Прикладная статистика. Основы эконометрики. – Т.1: Теория вероятностей и прикладная статистика. Учебник для вузов. – М.: ЮНИТИ, 2001- 656с.

#### Additional Literature

1. Дубров А.М., Мхитарян В.С., Трошин Л.И. Многомерные статистические методы.– М.: Финансы и статистика, 2003. Глава 5,6. с. 134-240.
2. Теория вероятностей и математическая статистика: учеб. пособие /под ред. В.С. Мхитаряна. – М.: Маркет ДС, 2007, с.
3. Плис А.И., Сливина Н.А. Практикум по прикладной статистике в среде SPSS. – М.: Финансы и статистика, 2004.

#### 9.5. Splitting mixtures of probability distributions

Model, mathematical justification and algorithm for splitting a mixture of probability distributions, features of using the model for classifying observations.

#### Literature

1. Айвазян С.А., Мхитарян В.С. Прикладная статистика. Основы эконометрики. – Т.1: Теория вероятностей и прикладная статистика. Учебник для вузов. – М.: ЮНИТИ, 2001- 656с.

#### Additional Literature

1. Сиротин В.П., Архипова М.Ю. Декомпозиция распределений в моделировании социально-экономических процессов (русский). Монография. Москва: МЭСИ, 2011. 146 с.
2. Дубров А.М., Мхитарян В.С., Трошин Л.И. Многомерные статистические методы.– М.: Финансы и статистика, 2003. Глава 5,6. с. 134-240.

## 9.6 Classification of multivariate observations. Cluster analysis.

Classification methods without training. Distances between objects. Measures of proximity between clusters. Classification of features based on matrixes of coefficients of the statistical relationship between them. Partition quality functionals. The main types of problems and algorithms for cluster analysis. Hierarchical cluster procedures. Parallel and sequential cluster procedures. K-means method. Dependence of the choice of the classification method on the purpose of the study.

### Literature

1. Айвазян С.А., Мхитарян В.С. Прикладная статистика. Основы эконометрики. – Т.1: Теория вероятностей и прикладная статистика. Учебник для вузов. – М.: ЮНИТИ, 2001- 656с.

### Additional Literature

1. Дубров А.М., Мхитарян В.С., Трошин Л.И. Многомерные статистические методы.– М.: Финансы и статистика, 2011. Глава 7, с. 241-255.
2. Мхитарян В.С., Архипова М.Ю., Дуброва Т.А., Сиротин В.П. и др. Эконометрика: Учебник / под ред. д.э.н., проф. В.С.Мхитаряна. – М.: Проспект, 2012. Глава 9.
3. Плис А.И., Сливина Н.А. Практикум по прикладной статистике в среде SPSS. – М.: Финансы и статистика, 2004.

## 9.7 Classification of multidimensional observations with training.

Discriminant Analysis. Basic concepts of discriminant analysis. Classification methods with training. Training samples. Linear discriminant analysis with known parameters of the multivariate normal distribution law. The probability of misclassification using the discriminant function. Assessment of the quality of the discriminant function and the information content of individual features.

### Literature

1. Айвазян С.А., Мхитарян В.С. Прикладная статистика. Основы эконометрики. – Т.1: Теория вероятностей и прикладная статистика. Учебник для вузов. – М.: ЮНИТИ, 2001- 656с.

### Additional Literature

1. Дубров А.М., Мхитарян В.С., Трошин Л.И. Многомерные статистические методы.– М.: Финансы и статистика, 2011. Глава 7, с. 255- 270.
2. Мхитарян В.С., Архипова М.Ю., Дуброва Т.А. и др. Эконометрика / под ред. В.С. Мхитаряна. – М.: Проспект, 2012.
3. Плис А.И., Сливина Н.А. Практикум по прикладной статистике в среде SPSS. – М.: Финансы и статистика, 2004. С.9-58.

## 9.8 Decision trees

Classification trees ", or" decision trees "(" classification trees ", or" decision trees ") - the basic concepts and definitions. Where decision trees can be used. Advantages and disadvantages of using decision trees. Rules for constructing decision trees. Stopping criteria. Cutting trees (Rruning). Gini test and entropy test. Regularization concept. Validation and cross-validation.

### Literature

1. G. James, D. Witten, T. Hastie, R. Tibshirani, An Introduction to Statistical Learning with applications in R, Chapter 8 <http://www-bcf.usc.edu/~garth/ISL/ISLR%20Seventh%20Printing.pdf>

2. T. Hastie, R. Tibshirani, J. Friedman. Elements of Statistical Learning, Data Mining, Inference and Prediction, Springer, 2nd edition. Chapters 9, 10, 15, 16 <https://web.stanford.edu/~hastie/Papers/ESLII.pdf>

3. Глава 11 - про нейронные сети

4. N. Kozlovskaya, A. Zaytsev. Deep Ensembles for Imbalanced Classification. Accepted to ICMLA. 2017

## **Topic 10. Mathematical and instrumental methods of the economy**

### 10.1. Binary choice models.

Linear probabilistic model (disadvantages and advantages). Probit and Logit models. Testing the general linear hypothesis (on the fulfillment of linear constraints on the coefficients): test of Lagrange multipliers, Wald - test, likelihood ratio test. Testing hypotheses about the adequacy of the model and the significance of the variables. Estimating the influence of independent variables on probability: marginal effects. Forecasting in binary models.

#### Literature

1. Green (2008), *Econometric Analysis*, -- Pearson Prentice Hall, ch. 23, p. 772-793.
2. Cameron, Trivedi (2010), *Microeconometrics Using Stata*, -- Stata Press.

#### Additional Literature

1. Магнус Я.Р., Катышев П.К., Пересецкий А.А. *Эконометрика. Начальный курс*. М.: Дело, 2004

#### Additional Literature

1. G.S. Maddala (1987), *Limited-dependent and qualitative variables in econometrics*, Cambridge university press.

### 10.2. Multiple choice models.

Ordered models. Latent variable and its interpretation. Determination of the direction and degree of influence of independent variables on the probability of belonging to a given category. Mac Fadden's Multiple Logit Model. The individual's choice of a state corresponding to an alternative that has maximum utility. Assumption of the independence of alternatives. Relationship between the multiple choice logistic model and binary logit models for choosing one of two alternatives. Multiple Probit Model.

#### Literature

1. Green (2008), *Econometric Analysis*, -- Pearson Prentice Hall, ch. 23, p. 831-852.
2. Cameron, Trivedi (2010), *Microeconometrics Using Stata*, -- Stata Press.

#### Additional Literature

1. Магнус Я.Р., Катышев П.К., Пересецкий А.А. *Эконометрика. Начальный курс*. М.: Дело, 2004.

#### Additional Literature

1. G.S. Maddala (1987), *Limited-dependent and qualitative variables in econometrics*, Cambridge university press.

### 10.3. Models with limited dependent variable values

Truncated selections. The expectation and variance of the truncated normal distribution. Estimating regression models from trimmed data. Marginal effects and predictions for the conditional and unconditional expectation of the dependent variable and the probability of truncation. Censored samples. Distribution of the censored normal random variable. Tobin's model. Marginal effect in Tobin's model. Predicting censored and latent variables. Sample Selection. Heckman's model. Estimation of the Heckman model using the maximum likelihood method and a two-step procedure. Choosing between Heckman and Tobin models. The condition for the applicability of the least squares method. Marginal effects and prediction in the Heckman model. Switch model. Switch - regression.

#### Literature

1. Green (2008), *Econometric Analysis*, -- Pearson Prentice Hall, ch. 24, p. 863-875.
2. Cameron, Trivedi (2010), *Microeconometrics Using Stata*, -- Stata Press.

#### Additional Literature

1. Магнус Я.Р., Катышев П.К., Пересецкий А.А. *Эконометрика. Начальный курс*. М.: Дело, 2004.

#### Additional Literature

1. G.S. Maddala (1987), *Limited-dependent and qualitative variables in econometrics*, Cambridge university press.

### 10.4. Basic concepts and classification of linear static models of panel data analysis

Benefits of using panel data. Difficulties arising when working with panel data. General overview of the directions of development of methods for analyzing panel data. The concept of a one-component error model or a model with a specific individual effect. Model specification. Deterministic and random individual effect. Operators "Between" and "Within". Types of assessments. Comparative analysis of estimates.

#### Literature

1. Ратникова Т.А., Фурманов К.К. *Анализ панельных данных и данных о длительности состояний*. Издательский дом ВШЭ, 2014.

#### Additional Literature

1. Heckman J.J. "Micro Data, Heterogeneity and Evaluation of Public Policy", Nobel Lecture, *J. of Political Economy*, v.109, N4, 2001

### 10.5. Testing the specification, accounting for heteroscedasticity, spatial and temporal autocorrelation of random errors

Criticism of Mundlacker's random effect model specification. Hausman test. Test for the presence of a random individual effect. Test for the presence of a deterministic individual effect. Sources and methods of accounting for heteroscedasticity of observation errors in models with an individual specific effect. Estimation and testing methods for models with spatial and temporal autocorrelation of errors.



## Literature

1. Ратникова Т.А., Фурманов К.К. Анализ панельных данных и данных о длительности состояний. Издательский дом ВШЭ, 2014

## Additional Literature

2. Baltagi B. “Econometric Analysis of Panel Data”, 1995  
3. Cheng Hsiao. “Analysis of panel data”, 1986

## 10.6. Estimation of panel regression coefficients under endogeneity conditions, selection of instruments

Estimation of panel regression coefficients in the presence of time invariant regressors. Hausman-Taylor method. Evaluation of panels in the presence of measurement errors. Method of instrumental variables.

## Literature

1. Ратникова Т.А., Фурманов К.К. Анализ панельных данных и данных о длительности состояний. Издательский дом ВШЭ, 2014.

## Additional Literature

2. Hausman J.A., Taylor W.E. “Panel Data and Unobservable Individual Effects”, *Econometrica*, v.49

## 10.7. Evaluation of dynamic models, generalized method of moments, testing the relevance of tools Construction of moment identities. Types of dynamic model evaluations. Assessment properties.

## Literature

1. Ратникова Т.А., Фурманов К.К. Анализ панельных данных и данных о длительности состояний. Издательский дом ВШЭ, 2014

## Additional Literature

1. Магнус Я.Р., Катышев П.К., Пересецкий А.А. Эконометрика. Начальный курс. – М.: «Дело», 2004..

## 10.8. Time series and stochastic processes

The need for a probabilistic model for forecasting, interpreting and testing hypotheses related to financial and economic time series. The main components of the time series: trend, seasonal, cyclical, irregular. The concept of a random process. Random processes are stationary in the narrow sense and stationary in the wide sense. Multidimensional stochastic processes. The Wold - Zasukhin theorem.

## Additional Literature

1. Андерсон Т. Статистический анализ временных рядов. М.: Мир, 1976, гл. 7.  
2. Brockwell P.J., Davis R.A. Time Series: Theory and Methods. 3rd ed., Springer, 2017.

## 10.9. Stochastic difference equations

Models for trend, seasonal and irregular components as examples of stochastic difference equations. The concept of solving a stochastic difference equation, characteristic equation and its roots. Delay operators and their use for finding solutions of stochastic difference equations.

#### Additional Literature

1. Enders W. Applied Econometric Time Series. 4th ed., Wiley, 2014, Ch. 1.

#### 10.10. Linear models for stationary one-dimensional time series

White noise process. Autoregressive Moving Average Models ARMA (p, q). Autocorrelation functions. Yule - Walker equations. Private autocorrelation functions. The Box-Jenkins procedure for constructing the ARMA (p, q) model. Hypothesis testing. Akaike and Schwartz Information Criteria. Reversibility property of ARMA (p, q) processes. Using ARMA (p, q) models for forecasting. Prediction error variance. Additive and multiplicative seasonality models.

#### Additional Literature

1. Enders W. Applied Econometric Time Series. 4th ed., Wiley, 2014, Ch. 2.
2. Mills T.C., Markellos R.N. The Econometric Modelling of Financial Time Series. 3rd ed., Cambridge Univ. Press, 2008.
3. Box G.E.P., Jenkins G.M., Reinsel G.C., Ljung G.M. Time Series Analysis: Forecasting and Control. 5th ed., Wiley, 2015.

#### 10.11. Linear models for non-stationary one-dimensional time series

Deterministic trend and unit root models. ARIMA models (p, d, q). Making forecasts for non-stationary time series and the behavior of the forecast error variance depending on the chosen model. Methods for removing a trend. Apparent regression dependence. Dickey - Fuller tests for the presence of unit roots (acceptance of nonstationarity as the main hypothesis). Generalized Dicky - Fuller tests and Phillips - Perron tests. KPSS test for the presence of unit roots (taking stationarity as the main hypothesis).

#### Additional Literature

1. Enders W. Applied Econometric Time Series. 4th ed., Wiley, 2014, Ch. 4.
2. Maddala G.S., Kim I.-M. Unit Roots, Cointegration, and Structural Change. Cambridge Univ. Press, 2003.
3. Kwiatkowski D. et al. Testing the null hypothesis of stationarity against the alternative of a unit root // J. of Econometrics, 54 (1992), 159–178.

#### 10.12 Spectral Time Series Analysis and Long Memory Models

Spectral density of a stationary random process. Selective periodogram. Fractional Integration Time Series and Long Memory Models.

#### Additional Literature

1. Shumway R.H., Stoffer D.S. Time Series Analysis and Its Applications. 3rd ed., Springer, 2011, Ch. 4.
2. Brockwell P.J., Davis R.A. Time Series: Theory and Methods. 3rd ed., Springer, 2017.

#### 10.13. Time series analysis containing structural changes

Inapplicability of conventional unit root tests in case of structural changes. Tests with a known and an unknown moment of structure change. Markov chain switching regression models.

#### Additional Literature

1. Enders W. Applied Econometric Time Series. 4th ed., Wiley, 2014, Ch. 4.
2. Maddala G.S., Kim I.-M. Unit Roots, Cointegration, and Structural Change. Cambridge Univ. Press, 2003.
3. Visser I. Seven things to remember about hidden Markov models: A tutorial on Markovian models for time series // J. of Mathematical Psychology, 55 (2011), 403–415.

#### 10.14. Multivariate Time Series Models

Inclusion in the model of a deterministic series (intervention). Models with transfer functions, cross-correlations and their use, the use of difference equations to find cross-correlations. Vector autoregression, conditions stationarity, pulse response function. Finding and practical significance of cointegration ratios. Cointegration testing. Error-corrected models. Distributed lag models. Structural changes in the time series and cointegration relationships. Granger causality.

#### Literature

1. Tsay R.S. Analysis of Financial Time Series. 3rd ed., Wiley, 2010.

#### Additional Literature

1. Enders W. Applied Econometric Time Series. 4th ed., Wiley, 2014, Ch. 5, 6.
2. Maddala G.S., Kim I.-M. Unit Roots, Cointegration, and Structural Change. Cambridge Univ. Press, 2003.

### **Topic 11. World economy**

#### 11.1. World economy and international economic relations.

##### 11.1.1. World economy and international economic relations

World (world) economy, international division of labor, world market. Resources of the modern world economy. Global problems of our time.

The main subjects of the modern world economy.

Globalization of the modern world economy: positive aspects and contradictions.

The concept of international economic relations, their main areas.

Transformation of international economic relations at the beginning of the XXI century. The system of modern international economic relations.

Russian Federation in the system of modern international economic relations. Russian National Security Concept.

##### 11.1.2. World market.

World market conditions. Pricing in international trade

The structure of the world market. World markets for goods, services, capital and labor, their relationship and interaction. The main conjuncture-forming factors. Pricing in international trade.

The system of pricing factors. The main types of foreign trade prices.

##### 11.1.3. International trade and foreign trade policy / trade policy

The place of international trade in the system of international economic relations. International trade theory. The dynamics of world trade is its main indicators. Commodity and geographic structure of world trade.

Classification of goods in international trade. Fuel, raw materials and agricultural products in world trade. Features of the organization of trade in fuel, energy and food products. International trade in industrial goods, machinery and equipment.

The role of the state in the regulation of foreign trade. Directions and forms of modern trade policy of the state. Liberalization and protectionism in world trade. State trade policy instruments.

Customs tariffs. Non-tariff regulation. Export promotion.

Multilateral regulation of international trade. Customs unions and free trade zones. General Agreement on Tariffs and Trade (GATT). World Trade Organization (WTO) and its legal framework. Problems of Russia's membership in the WTO, assessment of real and potential benefits and possible risks for the Russian economy.

Foreign trade contracts. Types of operations and transactions in foreign trade. Prices of foreign trade contracts. Currency and payment terms of foreign trade contracts.

The structure and content of foreign trade contracts.

#### 11.1.4. Foreign trade of Russia and its regulation

Importance of foreign trade for the Russian economy. Dynamics, commodity and geographical structure of foreign trade of the former USSR and the Russian Federation.

Formation of Russia's foreign trade policy. RF Law "On the Basics of State Regulation of Foreign Trade". Tariff regulation.

Law on Customs Regulation of the Russian Federation and the Customs Code of the EurAsEC Customs Union. Customs policy. Methods of non-tariff regulation of foreign trade. Law of the Russian Federation "On measures to protect the economic interests of the Russian Federation in the implementation of foreign trade in goods."

Problems of state support for exports to the Russian Federation. Features of Russia's foreign trade with the CIS countries.

#### 11.1.5. World service market

General Agreement on Trade in Services GATS (GATS) and its structure.

Features of international trade in services, the concept of trade in services.

Service classifier. Problems of regulation of international trade in services. Russia in the world market of services. International market of transport services. The structure of international transport operations. Russia's place in international traffic.

Financial services. Features of the Russian financial services market.

International information technology (IT) market. Organization of international trade in engineering services.

International tourism. Dynamics and main directions of international tourism. The role of the tourism industry in the economy of individual countries. Organization of international tourism business. International (inbound and outbound) tourism in Russia, its development.

Mechanism for the application and protection of intellectual property rights. WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) and countries' obligations under TRIPS. Relationship of TRIPS to the main international treaties on intellectual property rights. TRIPS norms and legislation of the Russian Federation.

International scientific and technological exchange. Legal security as a condition for effective commercial implementation of technologies. Russia in the international technology market.

#### 11.1.6. International capital movement and foreign investment in Russia

International capital movement as a sphere of international economic relations. Export and import of capital.

International credit and its role in the development of the world economy. The concept of "official development assistance".

The reasons and essence of the export and import of capital. Forms of capital export. The scale and main directions of capital export. Direct and portfolio investments. Forms and methods of international investment. Specificity of foreign investment regulation. Capital flow regulation within the OECD; The WTO Agreement on Trade Aspects of Investment Measures (TRIMS - TRIMS); International Investment Guarantee Agency (MIGA).

The concept of the investment climate and its assessment. The state of the investment climate in individual countries and groups of countries.

World market of loan capital. External debt problems in the modern world economy.

Free economic zones in the world economy, their functions and classification. Offshore zones, offshore business. Correlation between the processes of import (import) and export (export) of capital from Russia. The main reasons, directions, forms and consequences of the export (and flight) of capital from Russia. Legal and illegal export of capital. Anti-money laundering. State regulation of the export of capital from Russia.

Foreign investments in Russia at the end of XX - beginning of XXI centuries and their role in the economic development of the country. Modern problems and the importance of attracting foreign capital to the economy of the Russian Federation, the impact of unilateral economic sanctions from the West. Investment climate in the Russian Federation. State regulation of foreign investment.

Forms of foreign capital participation in the Russian economy. Foreign investors, rights and guarantees for foreign investors.

Creation and operation of enterprises with the participation of foreign capital. Attracting foreign capital in the development of natural resources. Production sharing agreements. Concessions.

Free economic zones in Russia, their functions, legal and economic regulation, development problems. The ratio of foreign assets and liabilities of Russia, the problems of managing foreign assets and liabilities.

#### 11.1.7. International labor market

Formation of the international labor market, its connection with the internationalization of production, the development of the international division of labor and demographic processes.

International migration, current trends in its development. Uneven economic development and labor migration. The main centers of labor migration, directions, forms, scale, composition of international labor migration.

Impact of labor migration on labor exporting and importing countries.

State and international regulation of labor migration. Russia and the international labor market.

#### 11.1.8. Integration processes in the world economy

The essence and forms of international economic integration. Classification of integration associations according to B. Balash. Theories of European integration. The main stages in the development of European integration. Basic Treaties and European Communities. EU Common Trade Policy and EU Common Agricultural Policy. Maastricht Treaty. Institutional structure and decision-making mechanism in the EU. Basic contracts. Common European Economic Space. Economic and Monetary Union.

BRIC Perspectives (BRICS). Mega-Regional Trade Agreements (MRTS): TTIP, VPTPP, CETA, RCEP, JEFTA Free Trade Area Agreement between the EU and Japan. Shanghai Cooperation Organization (SCO). Integration processes within the CIS. Eurasian Economic Union (EAEU): achievements and contradictions. Prospects for concluding trade agreements between the EAEU and other countries.

EAEU Customs Union Russia - Kazakhstan - Belarus.

#### 11.1.9. International economic organizations

General characteristics and classification of international economic organizations. Main problems. UN: goals and principles, structure. UN reform. Specialized agencies (WIPO, ILO, IMF, World Bank, UNDP, UNIDO, FAO, UNWTO). OECD: goals and objectives, prospects for Russia's accession. Informal institutions in the international system (G7, G20). International trade regulation (WTO, UNCTAD, UNCITRAL). New approaches to solving world energy problems (IAEA, OPEC, GECF, Paris Agreement on climate. Russia's participation in international economic organizations: problems and prospects.

#### **An indicative list of questions for the Section "World Economy and International Economic Relations"**

1. The essence and structure of the world economy. Spheres of international economic relations, their evolution.
2. Globalization of the modern world economy, its essential features, positive aspects and contradictions.
3. Globalization and the UN Sustainable Development Goals.
4. Global problems and discussion of ways to solve them: poverty, preservation of the planet's climate.
5. Economic growth, uneven development of the world economy, regionalization.
6. Inequality in the development of countries and social inequality in the countries of the world.
7. The place of the Russian Federation in the world economy and the system of modern international economic relations.
8. The world market and its structure. World markets for goods, services, capital and labor, their relationship and interaction.
9. Pricing in international trade.
10. Dynamics of world trade and its main indicators. Commodity and geographic structure of world trade.
11. Modern trade wars, economic sanctions and their effects
12. The role of the state in the regulation of foreign trade. Directions and tools of the state's modern foreign trade policy.
13. Liberalization and protectionism in world trade. Multilateral trade regulation under the WTO.
14. Main trends in scientific and technological progress, digitalization of the world economy
15. Foreign trade of Russia and its regulation.
16. Concept and structure of the international market for services. Characteristic features and trends in the development of international trade in services.
17. International technology market. Russia in the international exchange of technologies.
18. WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS). TRIPS norms and RF legislation.
19. International capital movement as a sphere of international economic relations and its structure. Direct and portfolio investments.
20. The reasons for the export and import of capital, their impact on the national economy. The concept of the investment climate and its determining factors.
21. Forms and methods of international investment. Specificity of foreign investment regulation. Regulation of investments and capital flows within the framework of the OECD, the WTO Agreement on Trade Aspects of Investment Measures (TRIMS), the International Investment Guarantee Agency (MIGA).

22. Problems of external debt in the modern world economy.
23. Free economic zones in the world economy, their functions and classification. Offshore zones, offshore business.
24. Modern problems and the importance of attracting foreign capital to the economy of the Russian Federation. Investment climate in the Russian Federation. State regulation of foreign investment.
25. International labor migration and current trends in its evolution.
26. The essence and forms of international economic integration, the classification of integration associations. Major integration associations in the world. The European Union as the most developed form of international economic integration. Mega-regional trade agreements (MRTS).
27. Characteristics, achievements and problems of the EAEU
28. The essence and forms of TNCs. The role of TNCs in the world economy and the process of its globalization.
29. General characteristics and classification of international economic organizations.

#### Literature

1. Анализ экономических систем. Основные понятия теории хозяйственного порядка и политической экономики. Пер. с немецк. Изд. 6-е / Под общей ред. А. Шюллера и Х.-Г.Крюссельберга. М.: Экономика, 2006.
2. Дюмулен И.И. Всемирная торговая организация. Экономика, политика, право. М. 2012.
3. Норт Д., Уоллис Дж., Вайнгаст Б. «Насилие и социальные порядки». –М.: Издательство Института Гайдара, 2011.
4. Пугель Т.А., Линдерт П.Х. Международная экономика. Перевод 11-го издания. – М.: Дело и Сервис, 2003.

#### Additional Literature

1. Ломакин В.К. Мировая экономика. — М.: ЮНИТИ, 2007.
2. Международные экономические отношения. Изд. 2-е / Под ред. И.П.Фаминского. М.: Экономика, 2004, 2007.
3. Международные валютно-кредитные и финансовые отношения. Изд. 3-е. / Под. ред. Л.Н. Красавиной. М.: Финансы и статистика, 2006.
4. Основы торговой политики и правила ВТО. Данильцев А.В. и др. – М.: Международные отношения, 2005.
5. Кудров В.М. Мировая экономика: учебник. – М.: БЕК, 2002.

#### Additional Literature

1. Асемоглу Д., Джонсон С., Робинсон Д. Институты как фундаментальная причина долгосрочного экономического роста // Экономический вестник, 2006. № 5, стр. 4-43.
2. Бранко М. Глобальное неравенство: от классовой принадлежности к стране проживания, от пролетариев к мигрантам // Экономическая политика, 2016. Т. 11, № 1.
3. Григорьев Л., Иващенко А. Мировые дисбалансы сбережений и инвестиций. Вопросы экономики, 2011. №6, стр. 4-19.
4. Григорьев Л., Курдин А. Механизмы глобального регулирования: экономический анализ. Вопросы экономики, 2013. №7, стр. 4-28.
5. Григорьев Л., Салихов М. Финансовый кризис – 2008: вхождение в мировую рецессию. Вопросы экономики, 2008. №12, стр. 27-45.
6. Григорьев Л.М., Павлюшина В.А. Межстрановое неравенство и проблема стадий развития, Вопросы экономики, 2018. №7, стр. 5-29.

7. Григорьев Л.М., Павлюшина В.А. Социальное неравенство в мире: тенденции 2000—2016 гг., Вопросы экономики, 2018. №10, стр. 29-52.
8. Либман А., Хейфец Б. Мировые процессы транснационализации и российский бизнес // Вопросы экономики, 2006. № 12, стр. 61-79.
9. Григорьев Л.М., Бриллиантова В.В., Павлюшина В.А. Евразийский экономический союз: успехи и вызовы интеграции // Мир Новой Экономики, 2018. №4, стр. 6-19.
10. Charles P. Kindleberger, Aliber R. Z. Manias, Panics, and Crashes: A History of Financial Crises. Wiley Investment Classics, 2005.
11. «Цели устойчивого развития ООН и Россия» / Под ред. С.Н. Бобылева и Л.М. Григорьева, Москва, АЦ, 2016.
12. Бродель Ф. Материальная цивилизация, экономика и капитализм, XV-XVIII вв. –М.: Весь мир, 2006.
13. Дюмулен И.И. Всемирная торговая организация. Экономика, политика, право. М. 2008.
14. Мировая экономика в начале 21 века» под научным руководством Л.М. Григорьева. М., «Директ-Медиа», 2013.
15. Мировая экономика. Изд. 2-е / Под ред. А.С. Булатова. М.: Экономистъ, 2007.
16. Мировая экономика: глобальные тенденции за 100 лет / Под ред. И.С. Королева. М.: Экономистъ, 2004.
17. Мэддисон Э. Контурсы мировой экономики в 1-2030. –М.: Издательство Институт Гайдара, 2012.
18. Национальная экономика в эпоху глобализации / Под. ред. И.П. Фаминского. М.: Магистр, 2007.
19. Портер М. Международная конкуренция: Пер. с англ. / Под ред. и с предисловием В.Д. Щетинина. М.: Международные отношения, 1993.
20. Портанский А.П. Многосторонняя торговая система в XXI веке: возможности и риски. – М.: РАГС, 2010
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## 11.2. World finance and international monetary and financial relations

### 11.2.1 Global finance and financial globalization / regionalization

Financial globalization and regionalization as driving forces for the development of the world economy. Fundamentals of organization and peculiarities of international monetary and financial relations (IMFO) in the system of modern world finance. Post-crisis features of financial globalization. Regionalization of the financial sphere as an objective process. Basic principles of the IMFO. Fundamental factors of the IMFO. Driving Forces of IMFO Transformation in the Post-Crisis Period. The IMF and the global financial crisis. IMFO and post-crisis recovery.

### 11.2.2. World monetary system and international monetary relations

The concept of the world monetary system. Formation and development of the world monetary system. Differences in scientific approaches to the definition of the world monetary system. National, international (regional) and world monetary systems.



General characteristics of the Parisian, Genoese, Bretton Woods and Jamaican currency systems. Crises of the world monetary system. The need and prospects for reforming the modern world monetary system.

European monetary system as the basis for regulating currency relations within the framework of the integration association. Basic principles and mechanism of functioning of the European monetary system.

Problems of the formation of a monetary union in the EU. Prerequisites and main stages of the formation of the euro. The role of the euro in international monetary, credit and financial relations in the post-crisis period. Prospects for the euro and the expansion of the eurozone.

The place of Russia, the EAEU and the CIS countries in the world monetary system. Prospects for a unified monetary policy in the EAEU. Prospects for the introduction of a single currency in the EAEU.

Currency concept. Currency classification criteria. National currency. Foreign currency. Reserve currency.

Exchange rate as an economic category. Factors influencing the formation of the exchange rate.

Floating and fixed exchange rates. Reasons for the transition from fixed to floating exchange rates.

Currency quotation methods. Cross rates of currencies. Buyers and sellers courses.

Currency convertibility. Freely convertible, partially convertible and closed currencies. External and internal convertibility of currencies.

Special Drawing Rights (SDRs). The composition of the SDR currency basket.

Volatility of exchange rates in world financial markets. Currency dumping and currency war.

Factors that determine the exchange rate of the Russian ruble against other currencies. The modern mechanism for establishing the exchange rate of the ruble. Currency Corridor as a Form of Foreign Currency Regulation.

International monetary relations as a special type of economic relations. Spheres of origin and development of currency relations. The relationship of currency relations with the process of reproduction and trade.

Subjects and objects of international monetary relations. Legal regulation of international monetary relations. Modern problems of international monetary relations. State and market regulation of international monetary relations.

The evolution of the place and role of gold in international monetary relations. Demonetisation of gold, its causes, contradictions and consequences. Gold as an integral element of the international reserves of the central bank.

Concept, structure, forms and functions of international monetary liquidity. Indicators of international currency liquidity. Methods for regulating international currency liquidity. Dynamics of gold and foreign exchange (international) reserves. Reserve position of the country in the IMF.

### 11.2.3 balance of payments

Balance of payments: concept and classification. The structure of the balance of payments and the classification of its items.

Methodology and evolution of balance of payments compilation methods. IMF Balance of Payments Compilation Guide. Accounting and analytical problems in the preparation of the main sections of the balance of payments. The meaning and significance of the balance of payments item "Errors and omissions". Methods for calculating the balance of payments: base method, liquidity method, official settlement method.

Factors affecting the state of the balance of payments.

Methods and ways of regulating the balance of payments. Methods for regulating the balance of payments deficit.

Settlement balance and its difference from the balance of payments. Balance of international debt and its difference from the balance of payments.

The economic content of the current account. The economic content of the financial account.

The influence of the state of the balance of payments on the exchange rate.

State regulation of balances of payments. Forms, tools and contradictions of state regulation of balances of payments.

#### 11.2.4. World currency markets

World currency markets and their features. General characteristics of the current state of the world foreign exchange market and the main regional and national foreign exchange markets. Dynamics of the development of the world foreign exchange market. Types of world currency markets.

Evolution of world currency markets. Functions of world currency markets. The concept of the effectiveness of the foreign exchange market.

Foreign exchange market participants.

Currency exchanges. Exchange and over-the-counter currency market.

Features of the formation of the foreign exchange market in Russia. Functional features of the foreign exchange market in Russia. Regulation of the foreign exchange market in Russia. Interbank foreign exchange market and its importance for the banking sector. The problem of stability of the foreign exchange market in Russia. Foreign exchange markets of the CIS countries. Problems of the formation of the EAEU currency market in the context of economic integration.

#### 11.2.5. Foreign exchange policy and its forms. Regulation of international monetary relations

Monetary policy: concept, goals, forms and instruments. Discount policy. Motto policy. Foreign exchange intervention, its preconditions and implications for monetary policy. Foreign exchange reserves diversification policy. Foreign exchange control.

State regulation of international monetary relations. Regulation of the regime of currency parities and exchange rates. Devaluation and revaluation of the currency.

Features of the monetary policy of Russia. Monetary policy of Russia in the context of external economic sanctions. Prospects for regionalization and supranationalization of monetary policy in the EAEU.

Foreign exchange restrictions as an integral part of foreign exchange policy. Preconditions and forms of currency restrictions. The economic effect of foreign exchange restrictions. Foreign exchange discrimination and foreign exchange blockade.

Currency restrictions on current operations and capital operations. Consequences of currency restrictions. The role of the IMF in the interstate regulation of currency restrictions. Currency restrictions after the introduction of currency convertibility. Currency protectionism in the context of liberalization of international currency relations.

Features of currency restrictions in Russia, the EAEU member states and the CIS countries.

#### 11.2.6. Foreign exchange transactions and foreign exchange risks

Principles of classification of foreign exchange transactions. Currency position. The concept of a short and long currency position. Cash transactions. Foreign exchange transactions with immediate delivery ("spot").

Urgent transactions with foreign currency. Objectives of Forward Transactions. Features of forward transactions and their types. The concept of premium and discount and the formula for their calculation. The relationship between forward exchange rates and interest rates in the foreign exchange market. Futures transactions. Similarities and differences between forward and futures trades.

Option transactions and their classification. Swap operation: goals, essence and value. Varieties of swap transactions. Currency and interest rate swaps. Speculative operations in the international currency markets.

Currency arbitrage as a currency transaction. Forms of currency arbitrage and their evolution. Percentage arbitrage. The essence and forms of interest arbitration.

The current state and types of foreign exchange transactions carried out in the Russian foreign exchange market and the prospects for their development in modern conditions.

The concept of currency risk. Sources of currency risks. Methods and ways of minimizing currency risks. Use of urgent foreign exchange transactions as a method of insurance against foreign exchange risks. Hedging.

Protective clauses. Unilateral and bilateral reservations. Gold clause, reasons for its cancellation.

Currency and multi-currency clauses; their forms and application features.

Use of SDRs in multi-currency (multi-currency) clauses. Combined currency and commodity clause.

Methods of regulation and insurance of foreign exchange risk. Establishment of limits on open foreign exchange position as a form of foreign exchange risk management. Use of forward transactions, option transactions, swap transactions to hedge against foreign exchange risk.

Currency risk management tools and methods.

#### 11.2.7. International payments and their forms

The concept of international settlements and the conditions for their implementation. Correspondent accounts "Loro" and "Nostro". The role of national currencies and gold in international settlements. Monetary and financial and payment conditions of foreign trade transactions.

Forms of international settlements, their general characteristics. Evolution of forms of international payments. Factors influencing the choice of the form of international settlements.

Letter of credit, standby letter of credit, collection, settlements on an open account, bank transfer, advances, settlements using bills of exchange, credit cards.

Guarantees and counter-guarantees in international settlements. International payment systems.

Single zone for payments in euros: preconditions for the formation and features. SWIFT system and other electronic systems of international settlements.

Practice of international settlements in Russia, methods of increasing their efficiency. Settlement problems between Russia, the EAEU member states and the CIS countries and the ways of their settlement. Prospects for the creation of a payment union in the EAEU.

#### 11.2.8. International credit

Essence, functions and role of international credit. The value of credit in foreign trade. International credit and competition in world financial markets.

Forms of international credit. Classification of international credit by source, purpose, type, loan currency, timing and security.

Corporate loan. The relationship between corporate and bank loans. Bill of exchange credit. Open account loan. Buyer's advances. International bank loans. Export, financial and foreign currency loans.

Medium and long-term international loans: corporate, bank and interstate loans. Project financing. Loan to the buyer, its features.

Concept of the world market for loan capital. National and world markets for loan capital. World money market. Medium-term and long-term loans market. The mechanism of the functioning of the world market of loan capital. Financial instruments of the world market of loan capital. Interest

rates in the global market for loan capital. LIBOR, its problems and prospects of replacement with other types of base rates. Fixed and floating interest rates. Evolution of interest rates in the global loan capital market.

Forms of long-term interstate loans. Loans from international monetary and financial organizations. Issue of securities as a form of long-term international credit. Foreign and international bond loans. International loan conditions. The problem of the term and cost of the loan. Loan currency and payment currency: amount, term, terms of repayment, cost (contractual and additional elements). Eurocurrency market and prerequisites for its emergence. Connection of the Eurocurrency market with the national markets of loan capital. The mechanism of functioning of the Eurocurrency market. Eurodeposits market. Eurobond and Eurocredits market. Interest rates on the Eurocurrency market. Russia in the Eurocurrency market.

International leasing, its types and forms. Operating leasing. Financial leasing. Leasing market participants. The mechanism of leasing operations. Calculation of lease payments. Advantages and disadvantages of leasing. Leasing in Russia.

Factoring concept; features of factoring operations. Preconditions for the development of factoring. Types of factoring. Participants in factoring transactions. Monetary and financial conditions of the factoring operation. Determination of the cost of factoring services. Sources of funds for factoring. Factoring in Russia and prospects for its development.

Forfeiting concept; features of forfeiting operation. Preconditions for the development of the forfeiting operation. Participants of the forfeiting operation. Monetary and financial conditions of forfeiting. Benefits of forfeiting as a form of export credit. Implementation of forfeiting services by Russian banks in modern conditions.

State crediting of exports, its forms. Export credit insurance. Export-import banks and their organizational form and international functions

Forms of state and interstate regulation of international credit.

Regulation of public credit in Russia, the EAEU member states and the CIS countries.

#### 11.2.9. International banking and banking regulation. Central banks

The role of international / transnational banks in international monetary and financial relations. The role of international / transnational banks in post-crisis recovery and financial stability.

Organization, structure and features of modern banking systems. Features of banking systems in developed countries. Features of banking systems in developing countries. Features of the shadow (alternative) banking sector.

Problems of internationalization and regionalization of modern banking systems. Problems of the formation of the EU banking union.

Banking risks, mechanism and tools for their minimization. Sovereign and country risks as specific risks of international banking.

Banking instability, bank insolvency and bankruptcy problems.

Mergers and Acquisitions of International Banks as a Tool to Strengthen Competitiveness.

Systemic risks in the international banking sector and ways to minimize them.

The central bank as an economic institution. Monetary policy instruments of the central bank.

Functional features of central banks to reduce systemic stress and strengthen financial stability.

The role of central banks in minimizing the consequences of global financial and general economic crises.

International banking regulation.

International banking regulation reform (Basel III). Macroprudential regulation. Deregulation of the banking sector. Minimum capital adequacy, leverage and liquidity ratios. Institutional and coordination features of international banking regulation. Features of banking regulation in Russia.

The Central Bank of the Russian Federation as a single regulator of the Russian financial market. Prospects for International Banking Regulation (Basel IV).

International, regional and national development banks. Features of development banks of the XXI century.

#### 11.2.10. International and regional monetary and financial organizations

Classification and general characteristics of international monetary and financial organizations.

Preconditions for their creation, goals and role.

International Monetary Fund (IMF). IMF resources and distribution of votes of member countries in the IMF. Management structure of the IMF, its evolution. The role and place of the IMF in international monetary and credit relations. Reflection of the specifics of various groups of countries in the activities of the IMF.

IMF policy on exchange rates and restrictions. The resource base of the IMF. The role of IMF loans in ensuring balance of payments and achieving financial stability. IMF stabilization programs.

Interaction of Russia with the IMF. IMF loans allocated to Russia for maintaining the balance of payments and restructuring the economy.

World Bank Group. International Bank for Reconstruction and Development (IBRD). World Bank resource building. Credit policy of MBRD, characteristics of its active operations.

International Development Association, International Finance Corporation, features of their activities.

Interaction of Russia with MBRD.

Problems of increasing the efficiency of the IMF and the IBRD in the context of globalization and regionalization of the world economy and the volatility of world financial markets.

Regional development banks. The preconditions for their emergence, the specificity of activities, the formation of resources.

Inter-American, Asian and African Development Banks, Their Lending Policy. Prospects for the creation of the Middle East Development Bank. Islamic Development Bank.

European Investment Bank (EIB). Formation of resources and main activities of the EIB. European Development Fund. European Bank for Reconstruction and Development (EBRD). Formation of EBRD resources, features and specifics of activities. EBRD lending policy.

New Development Bank (NDB). Asian Infrastructure Investment Bank (AIIB). Eurasian Development Bank (EDB).

Bank for International Settlements (BIS). Prerequisites for creation, functions, features of activity. The role of the BIS in the IMFO.

Russia's participation in the activities of international and regional monetary and financial organizations.

### **An indicative list of questions for the section "World finance and international monetary and financial relations"**

1. Post-crisis features of the processes of financial globalization and regionalization.
2. World monetary system: basic principles, stages of evolution, crises. Bretton Woods and Jamaican monetary systems.
3. Convertibility of currencies. Freely convertible, partially convertible and closed currencies. External and internal convertibility of currencies.
4. Russia's place in the world monetary system. Ruble convertibility.
5. Monetary union of the EU and features of the eurozone. The role of the euro in international monetary and financial relations in the post-crisis period.

6. Concept, structure, forms and functions of international monetary liquidity. International reserves.
7. Balance of payments, its structure and content of articles. Balance of payments regulation methods.
8. Types of foreign exchange markets and their evolution. The current state of the world currency markets. The current state of regional and national currency markets.
9. Features of the foreign exchange market in Russia and the mechanism of its functioning. Regulation of the foreign exchange market in Russia.
10. Fixed and floating exchange rates. Preconditions for the transition from fixed to floating exchange rates.
11. The role of gold in modern international monetary and financial relations. SDRs as IMF reserve assets.
12. Monetary policy and its forms. Regulation of international monetary relations. Foreign exchange restrictions as part of foreign exchange policy. Currency restrictions on current operations and capital operations. Currency risks and methods of their insurance.
13. Forms of international settlements, their general characteristics. Evolution of forms of international payments. Factors influencing the choice of the form of international payments.
14. Essence, functions and role of international credit. The value of credit in foreign trade. International credit and competition in world markets. Forms of international credit. Their classification by source, purpose, type, loan currency, timing and security.
15. Problems of internationalization and regionalization of modern banking systems.
16. Systemic risks in the international banking sector and ways to minimize them.
17. Monetary policy instruments of the central bank.
18. International Monetary Fund and World Bank Group as International Financial Institutions.
19. Regional and national development banks.

#### Additional Literature

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28. Международные валютные отношения: учебник для вузов /Под ред. М.А. Эскиндарова, Е.А. Звоновой. – М.: Издательство КноРус, 2018. – 539 с.

## FORMS OF KNOWLEDGE ASSESSMENT OF STUDENTS

Type of control	Form of control	2d year of education	Parameters
Continuous assessment	not provided	-	
Final assessment	Qualification exam	+	Oral exam

## EDUCATIONAL ADVANCED TECHNOLOGIES OF THE DISCIPLINE

The discipline is based on lectures, seminars and independent extracurricular work of graduate students.

## DISCIPLINE ASSESSMENT TOOLS

The exam consists of an answer to a ticket, which includes one question from each topic listed in the block corresponding to the scientific specialty of the graduate student's dissertation. In addition, the ticket includes a question on the topic of the dissertation research.

## CRITERIA FOR EVALUATION OF THE QUALIFICATION EXAM

Knowledge level assessment (points):

Each question is rated on a five-point scale. The final grade is set on a 5-point scale according to the following conversion principle:

"Excellent" - 5 points (on a 5-point scale);

"Good" - 4 points (on a 5-point scale);

"Satisfactory" - 3 points (on a 5-point scale);

"Unsatisfactory" - 2 points (on a 5-point scale).

## Evaluation criteria

	Grade
Complete answer without comment, demonstrated knowledge in a special discipline	5
Complete answer, with minor remarks	4
The answer is not complete, essential remarks	3
The answer to the question posed is not given	2

## QUALIFICATION EXAM SOFTWARE

To successfully master the discipline, the graduate student uses the following software tools:

MS Word, MS Power Point

Browsers



MATERIAL TECHNICAL SUPPORT OF THE QUALIFICATION EXAM  
Stationary computer or laptop, projector.