**Federal state educational budgetary**

 **institution of tertiary education**

**«Financial University under the Government of the Russian Federation»**

**(Financial University)**

**Department of World Economy and World Finance**

**Tsvirko S.E.**

**International portfolio investments**

 (in English)

**SYLLABUS**

***Level of Study:*** *Master’s Degree*

***Field of Study:*** *38.04.01 «Economics»*

***Study Program:*** *«International Finance (in English)»*

**Моscow 2019**

**Federal state educational budgetary**

 **institution of tertiary education**

**«Financial University under the Government of the Russian Federation»**

**(Financial University)**

**Department of World Economy and World Finance**

 **APPROVED**

Vice-rector for the development of educational programs

\_\_\_\_\_\_\_\_\_\_\_\_E. А. Kameneva

18.10.2019

 **Tsvirko S.E.**

**International portfolio investments**

 (in English)

**SYLLABUS**

***Level of Study:*** *Master’s Degree*

***Field of Study:*** *38.04.01 «Economics»*

***Study Program:*** *«International Finance (in English)»*

 *Recommended by the Academic Council of the*

*Faculty of International Economic Relations and*

 *International Finance Faculty (Minutes №33 dated 15.10.2019)*

*Approved by the Council of the Educational and Scientific Department*

*"World Economy and World Finance"*

*(Minutes №3 dated 25.09.2019)*

**Моscow 2019**

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**Ц 28**

**Reviewer:** PhD, Professor of the Department of World Economy and World Finance **M.B. Medvedeva**

**Tsvirko S.E.** **International portfolio investments**

Syllabus for the students of the field of study 38.04.01 «Economics» (level of study: master degree, master program «International Finance (in English)»). – М.:Financial University, Department of World Economy and World Finance, 2019. – 30 p.

The subject «International portfolio investments (in English)» is an optional subject of the Master's program "International Finance (in English)", field of study 38.04.01 "Economics". The syllabus outlines the content of the subject, interdisciplinary connections of topics, topics of lectures and seminars, describes the content of students' self-study work and provides forms of control, as well as educational and methodological support.

*Educational edition*

**Tsvirko Svetlana Eduardovna**

**International portfolio investments**

SYLLABUS

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Name of a subject– «Internationalportfolio investments (in English)».

1. **Mapping of learning outcomes (list of competences), with the relevant indicators described and subject learning outcomes indicated**

The course "International portfolio investments" (in English) provides the formation of the following competencies:

 for students enrolled in 2018, 2019

|  |  |  |  |
| --- | --- | --- | --- |
| **Competence code** | **Competence** | **Competence development indicators** | **Learning outcomes (skills and knowledge) and indicators that show competence development**  |
| УК-1  | Ability for abstract thinking, critical analysis of problematic situations based on a systematic approach, development of an action strategy | 1. Uses methods of abstract thinking, analysis of information and synthesis of problem situations, formalized models of processes and phenomena in professional activity.2. Demonstrates ways of rethinking and critically analyzing problem situations.3. Offers non-standard problem solving, new original projects, develops an action strategy based on a system approach. | Knows: - methods of system analysis and modeling of processes in the monetary and financial sphere for solving economic problems under conditions of uncertainty; Has the skills to:- to synthesize general and specialized information for solving problems aimed at maximizing profitability and minimizing the level of portfolio risks;Knows: * definition and classification of objects of various levels (in the context of portfolio management), namely - assets, strategies, risk factors; basic patterns inherent in the behavior of objects of various levels;
* various types of clients and intermediaries in international portfolio investment, the specifics of their strategies, goals, objectives and limitations;

Has the skills to:* profile the client, identify and adjust his investment goals and restrictions, and draw up an investment memorandum;
* reasonably classify objects of different levels (in the context of portfolio management) to the appropriate classes, analyze and predict their properties based on the classification and analysis carried out, choose methods for further work with them;
* define the current problem in the context of portfolio management, transform it into tasks, define constraints, choose relevant solution methods;

Knows:  - approaches to the analysis and forecasting of the development trend of the world economy as a whole and the world and international financial markets;Has the skills to:* to find the optimal portfolio from the point of view of risk / profitability with given characteristics and limitations, with externally given expectations of risk and profitability of individual financial market instruments;
 |
| ПКН-3 | Ability to apply innovative technologies, methods of systems analysis and modeling of economic processes in the formulation and solution of economic problems | 1. Applies modern mathematical models and information technologies to predict trends in economic development, solve economic problems at the macro, meso and micro levels, assess the consequences of management decisions.2. Knows how to rank the strategic and tactical goals of economic development at the macro, meso and micro levels; use factual (statistical and economic-mathematical) methods for analysis and systemic assessments. | Knows: - financial economics and modern portfolio theory (Markowitz portfolio model, Sharpe-Lintner CAPM model, arbitrage pricing model);- basic properties (stylized facts) of financial time series;Has the skills to:- use economic and mathematical tools to solve basic theoretical problems in the field of financial economics;Knows: -methods for evaluating stocks, bonds, derivatives, fundamentals of fundamental and technical analysis;-types of factor models and factors, methods of constructing (evaluating) factors and models;- foundations of the theory of behavioral finance;Has the skills to:- calculate the fair value of shares, bonds and derivatives by various methods;-calculate the profitability, Value-at-Risk and standard deviation for a position from several assets and for individual assets;-take into account behavioral factors when modeling and analyzing data, analyzing investor behavior and introspection of management decisions. |
| ДКН-3 | Ability to analyze the features of key segments of financial markets’ structure, see the relationship between these segments, as well as use the international practice of organizing financial market regulation systems | 1. Plans, implements and controls the results of trading operations in the financial market. | Knows: - arrangement of the main international financial markets, types of traded instruments, typical liquidity levels of the main markets, clearing principles, methods of concluding transactions, calculating profits and losses for individual instruments, including derivatives;- modern portfolio theory;- conceptual scheme of portfolio management and the main classes of portfolio management problems in the context of international portfolio management;- definitions, classification, theoretical justification and conditions for the feasibility of active, passive and semi-active (A / P / P-A) methods of portfolio investment;Has the skills to:- analyze financial time series;-simulate financial time series and get simulated series with given properties;- apply various models to solve portfolio management problems, in particular, with the construction of hedging portfolios |

 **3. Place of the subject in the curriculum**

The subject «International portfolio investment (in English)» is an optional subject of the Master's program "International Finance (in English)", direction of study 38.04.01 "Economics". This subject is a synthetic academic subject, in the study of which students must use the knowledge, skills and abilities formed as a result of studying previous academic subjects: "International financial markets", "International financial management", "Mathematical support of financial decisions", as well as knowledge, skills and abilities acquired in the bachelor's degree.

1. **Workload in credits and academic hours, with class work (lectures and seminars) and self-study indicated**

For students enrolled in 2018, 2019 the total workload of the course is 3 credit points.

The type of intermediate attestation is exam (enrollment in 2018) / credit (enrollment in 2019).

|  |  |  |
| --- | --- | --- |
|  |  |  |
| **Type of work on the subject «International portfolio investments (in English)»**  | **Total****(in credits and hours)** | **Module 6 (in hours)** |
|  |  |
| Master program «International Finance (in English)» |  |  |
| **Overall workload**  | 3 credits, 108 hours | 3 credits, 108 hours |
|  |  |  |
| ***Class work***  | 40 | 40 |
| *Lectures*  | 10 | 10 |
| *Seminars, practicals, including*  | 30 | 30 |
| ***Self study***  | 68 | 68 |
| Formative assessment  | Control work | Control work |
| Summative assessment  | Exam/Credit | Exam/Credit |

**5. Subject content (with the thematic components indicated).**

* 1. **Subject content**

**Topic 1. Introduction to international portfolio investment.**

Investments. Direct, portfolio and other investments. Investment portfolio. Portfolio formation goals. Risk and return. Diversification concept. Diversifiable and non-diversifiable risk. The benefits of investing in different asset classes. International diversification. International investment: advantages and possible problems.
       Portfolio theory. Markowitz model. Tobin model. Sharpe model. Modern approaches to the interpretation of portfolio theory. The general scheme of portfolio investment. Classes and super-classes of assets.
       Current trends in the development of securities’ markets. The history of the development of securities’ markets and exchanges. Volumes and dynamics of the global securities markets. Institutional changes in securities’ markets. Changes in the regulation of financial markets. US securities’ market. UK securities’ market. Japan securities’ market. Securities’ markets in Continental Europe. Securities’ market of China. The securities’ market in Russia.
       Historical review of investment performance.

**Topic 2. Types of portfolios. Styles of investing.** Types of portfolios. Aggressive style portfolio. Conservative portfolio.
Individual and collective investments.
Classification of portfolio management strategies. Conceptual foundations of an active investment strategy. Active investment in the markets of stocks, bonds and commodity derivatives. Parameters of hedge fund strategies and techniques for implementing of individual classes of strategies.
 The main approaches to passive portfolio investment. Benchmark, its selection and construction. Scenarios for using the benchmark. Semi-active investment.

**Topic 3. Stages of the portfolio management process.**

 The choice of investment policy. A generalized scheme of goals and limitations of the client. Types of customers, their goals and limitations. Investment Policy Statement (IPS). Client profiling for building IPS. Consideration of client behavioral characteristics and deviations (behavioral bias) when building IPS.
 Analysis of the securities’ market. Formation of securities’ portfolio. Revision of the securities’ portfolio. Assessment of the effectiveness of the securities’ portfolio.
 Portfolio optimization. Computer optimization programs.

**Topic 4. Financial instruments and their valuation.** Fundamental and technical analysis: basic concepts, assumptions, differences.
 Fair value of an asset. Features of the fundamental analysis of individual financial instruments. Fair value of stocks. Discounted cash flow model. CAPM model.
 Types of factors and methods for their assessment. Types of factor models (macroeconomic, microeconomic, statistical, mixed), their capabilities and limitations. Models for stocks, fixed-income instruments, currencies; mixed models.
 Fair value measurement of bonds. Time structure of interest rates. Duration and convexity. Yield to maturity and other characteristics of bonds.
Axioms of technical analysis. Information used in technical analysis. Methods of technical analysis.

**Topic 5. Derivative financial instruments and their use in the investment portfolio.**

The concept of derivative financial instruments. Evolution of derivative financial instruments. Underlying assets of derivatives.
 Types of derivatives. Forward contracts. Futures. Options. Foreign currency interest rate swaps. Credit default swaps, future interest rate agreements, price difference contracts. Strategies of operations. Speculation and hedging.
The modern market for derivative financial instruments. The largest global markets for trading in derivatives.

**Topic 6. Analysis of the returns from of investment portfolio management and attribution of profitability. Methods to increase portfolio sustainability.** Methods of analysis of returns of the portfolio management. Main coefficients. Risk measures. Sharpe, Trainor, Jensen coefficients. Modigliani Performance Indicator (M2).
  Portfolio-based approach (holdings-based approach). Approach based on historical profitability (returns-based approach). Methods for increasing the sustainability of portfolio management.

| **5.2. Educational and thematic plan**for students enrolled in 2018, 2019 |  |
| --- | --- |
| Topics of the subject | Workload in hours | Forms of formative assessment |
| Overall | Class work | Self study |
| Subtotal  | Lectures | Seminars, practicals | Lessons in interactive forms |
| Topic 1. Introduction to international portfolio investment. | 18 | 6 | 2 | 4 | 2 | 12 | Questioning,discussion |
| Topic 2. Types of portfolios. Styles of investing. | 15 | 5 | 1 | 4 | 2 | 10 | Questioning, solving tests |
| Topic 3. Stages of the portfolio management process.  | 19 | 7 | 1 | 6 | 3 | 12 | Questioning, solving tests and problems |
| Topic 4. Financial instruments and their valuation. | 20 | 10 | 4 | 6 | 3 | 10 | Questioning, solving tests |
| Topic 5. Derivative financial instruments and their use in the investment portfolio. | 19 | 7 | 1 | 6 | 3 | 12 | Questioning, solving tests and problems |
|  Topic 6. Analysis of the returns from of investment portfolio management and attribution of profitability. Methods to increase portfolio sustainability. | 17 | 5 | 1 | 4 | 2 | 12 | Questioning, solving tests and problems, control work |
| Total for the subject | **108** | **40** | **10** | **30** | **15/37,5 %** | **68** | **According to the curriculum: control work** |

**5.3.Сontent of seminars**

|  |  |  |
| --- | --- | --- |
| **Topics of the subject** | **A list of questions for discussion at seminars, practicals, recommended sources from sections 8.9 (the number of the source is indicated)** | **Forms of conducting seminars** |
| Topic 1. Introduction to international portfolio investment. | 1. Investment portfolio. Portfolio formation goals. Risk and return. Diversification concept2. Portfolio theory.3. Current trends in the development of securities’ markets.Source: main 4; additional 5, 9, 10, 11 | Questioning. Educational discussion. (50% of the seminar is conducted in interactive form). |
| Topic 2. Types of portfolios. Styles of investing. | 1. Types of portfolios.2.Classification of portfolio management strategies.3. The main approaches to active and passive portfolio investment.Source: main 4; additional 5, 7, 11 | Questioning. Educational discussion. (50% of the seminar is conducted in interactive form). |
| Topic 3. Stages of the portfolio management process.  | 1. The choice of investment policy. 2. Customer profiling.3. Analysis of the securities market. Formation of a portfolio of securities. Revision of the securities portfolio. Assessment of the effectiveness of the securities portfolio.Source: main 4; additional 5 | Questioning. Educational discussion. (50% of the seminar is conducted in interactive form). |
| Topic 4. Financial instruments and their valuation. | 1. Fundamental and technical analysis: basic concepts, assumptions, differences.2. Fair value of an asset.Source: main 1,2,3,4; additional 6, 7, 8 | Questioning. Educational discussion. Problem solving. (50% of the seminar is conducted in interactive form). |
| Topic 5. Derivative financial instruments and their use in the investment portfolio. | 1. The concept of derivative financial instruments.2. Types of derivatives.3. Strategies of transactions with derivative financial instruments.Source: main 1,2,3; additional 6, 7 | Questioning. Educational discussion. Problem solving. (50% of the seminar is conducted in interactive form). |
|  Topic 6. Analysis of the returns from of investment portfolio management and attribution of profitability. Methods to increase portfolio sustainability. | 1. Methods of analysis of returns from the portfolio management.2. Methods to increase the sustainability of portfolio.Source: main 4; additional 5 | Questioning. Educational discussion. Problem solving. Control work (50% of the seminar is conducted in interactive form). |

**6. Teaching and methodological materials needed for the students self-study**

**6.1. Forms of self-study work**

The main forms of out-of-class independent work are the study of recommended textbooks, search for relevant information on the Internet, in particular publications of international financial organizations, investment companies, etc. in foreign languages. When preparing reports and presentations group forms of work can be used.

|  |  |  |
| --- | --- | --- |
| **Topics of the subject** | **Indication of topics assigned to self-study** | **Forms of self-study work** |
| Topic 1. Introduction to international portfolio investment. | Evolution of stock markets and exchanges.Volumes and dynamics of world securities markets. Institutionalchanges in stock markets. Changesin the regulation of financial markets.US stock market. Stock market of the Great Britain. Japan stock market.Stock markets of continental countries of Europe. China’s stock market. Russian stock market.Historical overview of capital market investments profitability. | **Working with information and analytical system Bloomberg**Work in the electronic library system and electronic information and educational environment of the Financial UniversityConsultations, reports |
| Topic 2. Types of portfolios. Styles of investing. | Parameters of hedge fund strategies and techniques for implementing individual classes of strategies.Semi-active investment. | **Working with information and analytical system Bloomberg**Work in the electronic library system and electronic information and educational environment of the Financial UniversityConsultations, reports |
| Topic 3. Stages of the portfolio management process.  | Profiling clients for building an IPS. Consideration of the client's behavioral characteristics and deviations (behavioral bias) when building the IPS.Portfolio optimization. Computer optimization programs. | **Working with information and analytical system Bloomberg**Work in the electronic library system and electronic information and educational environment of the Financial UniversityConsultations, reports |
| Topic 4. Financial instruments and their valuation. | Types of factors and methods for their assessment. Types of factor models (macroeconomic, microeconomic, statistical, mixed), their capabilities and limitations. Models for stocks, fixed income instruments, currencies; mixed models.Estimating the fair value of bonds. Temporary structure of interest rates. Duration and convexity. Yield to maturity and other characteristics of bonds. | **Working with information and analytical system Bloomberg**Work in the electronic library system and electronic information and educational environment of the Financial UniversityConsultations, reports. |
| Topic 5. Derivative financial instruments and their use in the investment portfolio. | The modern market for financial derivatives. The world's largest derivatives trading platforms.  | **Working with information and analytical system Bloomberg**Work in the electronic library system and electronic information and educational environment of the Financial UniversityConsultations, reports |
| Topic 6. Analysis of the returns from of investment portfolio management and attribution of profitability. Methods to increase portfolio sustainability. | A holdings-based approach. A returns-based approach. Methods for increasing the sustainability of portfolio management. | **Working with information and analytical system Bloomberg**Work in the electronic library system and electronic information and educational environment of the Financial UniversityConsultations, reports |

**6.2. Methodological support for classroom and out-of-class independent work**

**List of questions/assignments/topics for students’ preparation to formative assessment.**

 Indicative list of questions for the control work.

1.Benefits of international portfolio investment.
2.Collective and individual investments.
3.CAPM model, its capabilities, assumptions and limitations.
4.Systematic and unsystematic risks in international investment.
5.Active and passive investing.
6.The main components of the investment policy document.
7.Stages of the investment process.
8.Classification of bonds. Risks associated with investing in bonds.
9. Classification of shares. Risks associated with investing in stocks.

The scoring criteria for various forms of monitoring of progress are contained in the relevant methodological recommendations of the department.

**7. Fund of assessment tools for intermediate attestation of students for the subject**

The list of competencies with indicators of their achievement in the process of mastering the subject is in section 2 «Mapping of learning outcomes (list of competences), with the relevant indicators described and subject learning outcomes indicated».

**Typical control tasks and other materials required to assess achievement of competencies, skills and knowledge**

|  |  |
| --- | --- |
| competence | typical tasks |
| Ability for abstract thinking, critical analysis of problematic situations based on a systematic approach, development of an action strategy (УК-1) | **1.** **Uses methods of abstract thinking, analysis of information and synthesis of problem situations, formalized models of processes and phenomena in professional activity.****Task 1**Explain the essence and significance of the global stock market.**Task 2**Highlight the characteristic features of the modern stock market.**Task 3**Describe the institutional structure of the global stock market. **Task 4**Based on the statistics published on the website of the Bank for International Settlements (https://www.bis.org/statistics/about\_securities\_stats.htm), determine the dynamics and structure of debt securities in the world economy over the past 5 years, identify the main trends. **Task 5**Based on the information published on the website of the International Organization of Securities Commissions (https://www.iosco.org), identify the main trends in the regulation of securities markets, as well as directions for its improvement.**Task 6**Credit scoring models have proven to be useful to analysts and bond portfolio managers. What are their limitations as a substitute for professional judgment in credit analysis?**Task 7**Why do rating agencies assign a rating to sovereign government bonds for domestic currency debt and a separate rating for foreign currency debt? What factors are taken into account when determining the rating for liabilities in local currency and rating for liabilities in foreign currency?**2.** **Demonstrates ways of rethinking and critically analyzing problem situations.****Task 1**Create a "Training" securities portfolio for an imaginary client by performing the following steps:Planning* determination of the investment goal and existing restrictions
* formulating a strategy for achieving the goal, that is, determining the appropriate distribution of assets in the portfolio

Execution* selection of specific securities to be included in the portfolio
* implementation of the strategy, that is, the purchase of securities

Feedback• measuring and evaluating portfolio performance• portfolio rebalancing as neededAll decisions made must be substantiated, the results of managing the "training" portfolio should be analyzed.**3.** **Offers non-standard problem solving, new original projects, develops an action strategy based on a system approach.****Task 1** Fill in the table describing strategies for using stock futures

|  |  |
| --- | --- |
| Strategy type | Desciption |
| Hedging a stock portfolio against falling prices |  |
| Cash flow hedge against rising stock prices |  |
| "Short sale" |  |
| Leverage game for falling / increasing stock prices |  |
| Buying / selling a short-term "synthetic" bond (repo transactions) |  |
| Calendar spread |  |
| Building various strategies using futures and options on futures |  |
| Creation of a synthetic futures on the "second tier" stock index |  |

**Task 2**Fill in the table describing strategies for using short-term interest rate futures

|  |  |
| --- | --- |
| Strategy type | Desciption |
| Hedging the rate of attracting (placing) credit funds |  |
| Hedging of the average overnight rate of future periods |  |
| Leveraging short-term interest rates |  |
| Calendar spread |  |
| Playing on spreads with other instruments |  |
| Building various strategies using futures and options on futures |  |
| Creation of a synthetic futures on the "second tier" stock index |  |

 |
| Ability to apply innovative technologies, methods of systems analysis and modeling of economic processes in the formulation and solution of economic problems (ПКН-3) | **1. Applies modern mathematical models and information technologies to predict trends in economic development, solve economic problems at the macro, meso and micro levels, assess the consequences of management decisions.****Task 1**Determine one-day VaR with a 90% confidence level for a portfolio with a value of RUB 100 mln, which includes shares of only one company. The standard deviation of stock returns per day is 1.5%. **Task 2**Determine one-day VaR with a confidence level of 95% for a portfolio of RUB 100 million, which includes the stocks of two companies. The standard deviation of the first stock per day is 1.58%, and the second is 1.9%. The correlation coefficient for stock returns is 0.8. The share of the first stock in the portfolio value is 60%, the second - 40%.**Task 3**A Russian investor purchased stocks of company X for USD 500000. The standard deviation of stock returns per day is 1.26%. The exchange rate is 60 rubles per US dollar. The standard deviation of the exchange rate per day is 0.35%, the correlation coefficient between the US dollar rate and the return on company X's stock is 0.25. Determine the VaR of the investor's portfolio in rubles with a confidence level of 95%.**Task 4**The standard deviation of the market index return is 25%, and the covariance of the market index return with the return on company X is 350. Determine the beta of the X stock relative to the market index. What does beta show? How can the obtained result be interpreted?**Task 5**The standard deviation of the market portfolio is 15%, the standard deviation of the broadly diversified portfolio X is 12%, and the beta of portfolio X is 0.8. Determine whether the portfolio X is effective?**2.** **Knows how to rank the strategic and tactical goals of economic development at the macro, meso and micro levels; use factual (statistical and economic-mathematical) methods for analysis and systemic assessments.****Task 1**Perform a fundamental analysis of an ordinary stock of a given company, conclude whether the current stock price is fair.**Task 2**Apply technical analysis to a given financial asset, make a forecast of the value of this asset.Analyze the possibilities and disadvantages of fundamental and technical analysis. |
| Ability to analyze the features of key segments of financial markets’ structure, see the relationship between these segments, as well as use the international practice of organizing financial market regulation systems (ДКН-3) | **1.** **Plans, implements and controls the results of trading operations in the financial market.****Task 1**A U.S. investor decided to hold a portfolio with 85 % invested in the S&P 500 U.S. stock index and the remaining 15 % in the MSCI Emerging Markets index. The expected return is 7 % for the S&P 500 and 17 % for the Emerging Markets index. The risk (standard deviation) is 10 % for the S&P 500 and 33 % for the Emerging Markets index. What will be the portfolio’s expected return and risk given that the covariance between the S&P 500 and the Emerging Markets index is 0.0050?  **Task 2**Evaluate the following investments: Portfolio A (expected return 12 %, standard deviation = 15 %), Portfolio B (expected return 10 %, standard deviation = 8 %), Portfolio C (expected return 10 %, standard deviation = 9 %). а. Explain the choice among Portfolios A, B and C using Markowitz decision rule. b. Explain the choice among Portfolios A, B and C assuming that borrowing and lending at a risk-free rate of 1 % is possible. **Task 3**Portfolio of the Japanese pension fund includes assets invested in Japanese market. The current portfolio has a Sharpe ratio of 0.25. The investment committee is considering adding eurobonds in this portfolio. The predicted Sharpe ratio of eurobonds is 0.1 and their predicted correlation with existing portfolio =0.45. Explain whether the investment committee should add eurobonds to the existing portfolio.  |

The exam is held in writing form upon completion of the subject’s study. The exam task contains two theoretical questions and a numerical task

***The structure of exam ticket:***

• Theoretical question (20 points)

• Theoretical question (20 points)

• Numerical task (20 points)

**Example of exam ticket (**for students enrolled in 2018)

1. Capital Asset Pricing Model (CAPM): meaning, drawbacks, impact on portfolio management. (20 points)
2. Explain whether you agree or disagree with the following statement: «The credit risk of a bond is the risk that the issuer will fail to meet its obligation to make timely payment of interest and principal». (20 points)
3. Portfolio of the Indian pension fund includes assets invested in Indian market. The current portfolio has a Sharpe ratio of 0.15. The investment committee is considering adding US bonds in this portfolio. The predicted Sharpe ratio of US bonds is 0.1 and their predicted correlation with existing portfolio =0.2. Explain whether the investment committee should add US bonds to the existing portfolio. (20 points)

The criteria for assessing master students, developed by the Department of World Economy and World Finance on the basis of the Order of the Financial University No. 0557/0 of 03/23/2017 "On approval of the Regulations for the current monitoring of progress and intermediate attestation of bachelor and master degree students at the Financial University" are available on the page of the Department of World Economy and World Finance on the website of the Financial University.

**Typical Exam Questions** (for students enrolled in 2018) / **to receive credit** (for students enrolled in 2019)

1. Investment portfolio. Portfolio formation goals. Risk and return.

2. The concept of diversification. Diversifiable and non-diversifiable risk.

3. International investment: advantages and possible problems.

4. Markowitz model.

5. Tobin model.

6. Sharpe model.

7. Modern approaches to the interpretation of portfolio theory.

8. Types of portfolios. Aggressive portfolio. Conservative portfolio.

9. Individual and collective investments.

10. The conceptual framework of an active investment strategy.

11. The main approaches to passive portfolio investment.

12. Stages of the portfolio management process.

13. A generalized scheme of goals and limitations of the client. Types of customers, their goals and limitations. Investment Policy Statement (IPS).

14. Fundamental and technical analysis: basic concepts, assumptions, differences.

15. CAPM model.

16. Types of factors and methods for their assessment. Types of factor models.

17. Fair value of bonds.

18. Risks of bonds.

19. Derivative financial instruments and their use in the investment portfolio.

20. Analysis of the returns of investment portfolio and attribution of returns.

**8. Mandatory and optional reading list**

***Mandatory reading list***

1. International financial market: textbook and practicum for bachelor and master students / Financial University; ed. by М.А. Eskindarov, Е.А. Zvonova. - Moscow: Yurayt, 2017. - 453 p. - The same [Electronic resource]. - 2019. - Access mode: https://www.biblio-online.ru/book/mezhdunarodnyy-finansovyy-rynok-433807 (date of access: 24.10.2019). - Text: electronic.
2. Global finance. In 2 volumes. V. 1: textbook and practicum for bachelor and master students / V.V. Аntropov [and others]; Financial University ; ed. by М.А. Eskindarov, Е.А. Zvonova. - Moscow: Yurayt, 2016, 2017 - 374 p. - The same [Electronic resource]. - 2019. – Access mode: https://www.biblio-online.ru/book/mirovye-finansy-v-2-t-tom-1-434325 (date of access: 24.10.2019). - Text: electronic.
3. Global finance. In 2 volumes. V. 2 : textbook and practicum for bachelor and master students / V.V. Аntropov [and others] ; Financial University ; ed. by М.А. Eskindarov, Е.А. Zvonova. — Moscow: Yurayt, 2016, 2017. — 373 p. - The same [Electronic resource]. - 2019. – Access mode: https://www.biblio-online.ru/book/mirovye-finansy-v-2-t-tom-2-434326 (date of access: 24.10.2019). - Text: electronic.
4. [Sharpe W.F. Investments: textbook / W.F. Sharpe, G.J. Аlexander, J.V. Bailey. - Moscow: INFRA-М, 2007, 2011, 2013, 2016. - 1028 p. - The same [Electronic resource]. - 2018. - Access mode:](http://cat.library.fa.ru/SkoWeb/view.aspx?db=%u041a%u041d19&report=SKO_BOOK&Book=1,RU%5c%5cFA%5c%5cbooks%5c%5c59671&__SemesterType=1,2;1) <http://znanium.com/catalog/product/939546> (date of access: 24.10.2019). - Text: electronic.

***Optional reading list***

1. International practice of forecasting world prices in financial markets (raw materials, stocks, exchange rates) / Russian Academy of Science, Institute of world economy and international relations; ed. by Y.М. Mirkin - М.: Мagistr, 2014. - 456 p.– The same [Electronic resource]. – Access mode: http://elib.fa.ru/fbook/mirkin2 ; Access mode: http://znanium.com/catalog/product/498502 (date of access: 24.10.2019). - Text: electronic.
2. Mirkin Y.М. Financial Market Statistics: Textbook / Y.М. Mirkin, I.V. Dobashina, V.N. Salin; Financial University. - Моscow: Yurayt, 2016. - 250 p. — For master degree students. - The same [Electronic resource]. - Access mode: http://www.book.ru/book/919354 (date of access: 24.10.2019). - Text: electronic.
3. Bogle D.K. Don't believe the numbers! Reflections on investor misconceptions, capitalism, mutual funds, index investing, entrepreneurship, idealism, and heroes [Electronic resource]: Popular science - Moscow: LLC "Alpina Publisher", 2018 - 543 p. – Access mode: http://znanium.com/go.php?id=1002803 ; Access mode: <https://finunivers.alpinadigital.ru/book/15435> (date of access: 24.10.2019). - Text: electronic.
4. [Jennifer Schneider](https://www.google.ru/search?hl=ru&tbo=p&tbm=bks&q=inauthor:%22Jennifer+Schneider%22) European Business Cycle Convergence: Portfolio Similarity and a Declining Home Bias of Private Investors. Pl Academic Research, 2013. P 218. [Electronic resource]. - Access mode: <http://www.oapen.org/viewer/web/viewer.html?file=http://www.oapen.org/document/1002711> (date of access: 24.10.2019). - Text: electronic.
5. [McDonald, Oonagh](http://www.oapen.org/search?creator=McDonald,%20Oonagh) [Lehman Brothers](http://www.oapen.org/search?identifier=614070;keyword=Portfolio%20Construction). A crisis of value. [Electronic resource]. – Access mode: <http://www.oapen.org/view?docId=614070.xhtml> (date of access: 24.10.2019). - Text: electronic.
6. An Optimal Portfolio of Two Securities / Brusov P. N. [et al.] // Scientific notes of young researchers, 2017. – № 1.-P.12-19. [Electronic resource]. - 2017. – Access mode: <http://elib.fa.ru/art2017/bv725.pdf> (date of access: 24.10.2019). - Text: electronic.
7. Volkov M. Analysis of Fundamental Indexation as an Efficient Approach to Active Investing // Review of Business and Economics Studies, 2018. – № 4.-P.41-51. [Electronic resource]. - 2018. – Access mode: <http://elib.fa.ru/art2018/bv2571.pdf> (date of access: 24.10.2019). - Text: electronic.

**9. The list of resources of the information and telecommunication Internet network required for mastering the subject**

1. Bank for International Settlements: www.bis.org
2. Bank of Russia (Central Bank): [www.cbr.ru](http://www.cbr.ru)
3. World Federation of Exchanges: [www.world-exchanges.org/home/](http://www.world-exchanges.org/home/)
4. Financial Analysts and Risk Managers Guild: [www.gifa.ru](http://www.gifa.ru)
5. International Organization of Securities Commissions <https://www.iosco.org/>
6. International Monetary Fund: www.imf.org
7. Ministry of Finance of the Russian Federation: [www.minfin.ru](http://www.minfin.ru)
8. Моscow Exchange: [www.moex.com](http://www.moex.com)
9. National Association of Stock Market Participants: [www.naufor.ru](http://www.naufor.ru)
10. Organization for Economic Cooperation and Development: <http://www.oecd.org>
11. Moody’s: [www.moodys.com](http://www.moodys.com)
12. Standard&Poors: <https://www.standardandpoors.com>
13. Cyberleninka — scientific electronic library <https://cyberleninka.ru/>
14. Electronic library system of the Financial University: <http://elib.fa.ru/>
15. Electronic library system BOOK.RU http://www.book.ru
16. Electronic library system "University Library ONLINE": <http://biblioclub.ru/>
17. Electronic library system Znanium: http:www.znanium.com
18. Electronic library system of the publishing house "URAYT": https://www.biblio-online.ru/
19. Business online library Alpina Digital: <http://lib.alpinadigital.ru/>
20. Scientific electronic library eLibrary.ru: http://elibrary.ru
21. Electronic library: http://grebennikon.ru
22. National Electronic Library: http: //neb.rf/
23. Electronic library of dissertations of the Russian State Library: https://dvs.rsl.ru/
24. Information system "Continent-WWW": http://continent-online.com/
25. Electronic library of the Organization for Economic Cooperation and Development OECD iLibrary: http://www.oecd-ilibrary.org/
26. Springer Electronic Book Collection: Springer eBooks <http://link.springer.com/>
27. Database of electronic structured information on private and public

companies in Russia, Ukraine, Kazakhstan RUSLANA: <https://ruslana.bvdep.com/>

1. Database of electronic structured information on banks Orbis Bank Focus: https://orbisbanks.bvdinfo.com/
2. Database package of EBSCO Publishing, the largest aggregator of scientific resources the world's leading publishers: <http://search.ebscohost.com>
3. Electronic products of Elsevier publishing house. Collections: Business, management and Accounting; Economics, Econometrics and Finance: http://www.sciencedirect.com
4. JSTOR Arts & Sciences I Collection: http://jstor.org
5. Business Ebook Subscription database on the Ebook Central platform by ProQuest: https://ebookcentral.proquest.com/lib/faru/home.action
6. Collection of scientific journals Oxford University Press: https://academic.oup.com/journals/
7. University Information System RUSSIA (UIS RUSSIA): https://uisrussia.msu.ru/
8. Bloomberg Interactive Financial Information System
9. Thomson Reuters Eikon system
10. Oapen digital library: http://www.oapen.org/home

**10. Methodical instructions for students on mastering the subject**

Students need to familiarize themselves with the content of the syllabus, with the goals and objectives of the subject, its links with other subjects of the educational program, with a schedule consultations of the department professors.

In the course of preparation, students should use the Regulations on the abstract, essay, test work, student's creative homework by discipline (module), approved by order of the Financial University dated 01.04.2014 No. 611 / o.

While studying the subject it is proposed to regularly get acquainted with the materials of the newspapers and magazines «Kommersant», «Vedomosti», «Moscow University Bulletin. Series 25: International Relations and World Politics», «World Economy and International Relations», «Finance and Credit», «Finance: theory and practice», «Economist».

Since students have at their disposal textbooks and other materials, the lecturer can focus on the analysis of the key, most complex issues of the course and address the most pressing problems of international economic relations, Russia's participation in them. The study of the subject involves an active familiarization of students with the current legal documents, regulating the financial system of the Russian Federation. Study of the subject also involves familiarization with the available statistical data and materials, in particular data from the Ministry of Finance of the Russian Federation, Rosstat, Central Bank of the Russian Federation, international organizations - International Monetary Fund, World Bank Group, European Central Bank, as well as with data from periodicals. The above mentioned sources and materials can be used in independent work and in preparation for seminars.

**Recommendations for preparing to lectures**

Studying a subject requires a systematic and consistent accumulation of knowledge, therefore, omitting certain topics does not allow to master the subject deeply. That is why control over systematic work of students is always in the center of attention of the department.

Students need:

* to review the syllabus of the discipline before each lecture, that will save time on writing down the topic of the lecture, its main questions, recommended literature;
* to bring to some lectures, relevant material in hard copy, that was presented by the lecturer on the portal or sent to the "group's e-mail box" (tables, graphs, scheme). This material will be characterized, commented, supplemented directly at the lecture;

- to review the notes from the previous lecture before the next lecture. In case of difficulties in perceiving the material it is necessary to refer to the main and additional educational literature on the subject. If the material is unclear again, it is recommended to contact the lecturer (according to the schedule of his consultations) or to a teacher in practical classes. Don't leave "white spots "in studying of the material.

**Recommendations for preparing to seminars**

Students should:

- bring with them the literature recommended by the teacher to seminar;

- work out a theoretical material of the corresponding topic of the lesson before the next seminar, using the main and additional educational literature;

- use not only lectures’ materials, educational literature, but also normative legal acts, and materials of law enforcement practice when preparing for seminars;

- relate theoretical material with legal norms, because there can be changes and additions that are not always reflected in educational literature;

- ask the teacher questions about the material, that caused difficulties in understanding and mastering when solving problems at the beginning of classes;

- give clear answers to the questions during the seminar;

- bring each task to the final solution, demonstrate understanding of the calculations (analyzes, situations), in case of difficulty, contact the teacher.

It is recommended to the students who missed classes (for whatever reason) and do not have a written solution of tasks or not prepared for seminar, to attend a consultation with a teacher and report on the topic, no later than 2 weeks after the missed seminar.

Students who did not report on each topic that they have missed in the class by the beginning of the credit session, miss the opportunity to get the required points for work in the corresponding semester.

**Methodological recommendations for the implementation of various forms of out-of-class independent homework**

Independent work of students includes performing various kinds of tasks that are focused on a deeper assimilation of the material of the studied subject. For each topic in the subject students are offered a list of tasks for independent work. To complete assignments for independent work the following requirements are imposed: tasks must be performed all alone, on time, and comply with the established requirements.

 Students should:

- be guided by the schedule of independent work, defined in syllabus;

- complete all planned tasks given by the teacher for independent implementation, and disassemble at seminars and consultations unclear questions;

- use in the preparation of the regulations of the Financial university, namely, provisions on the abstract, essay, test work, homework assignments, approved by order No. 611 / o dated 01 April 2014, provisions on calculations and analytical work, approved by order No. 2161/0 of December 19, 2013;

- when preparing for the exam, work out both the appropriate theoretical and practical sections of the subject, fixing unclear moments for their discussion at a scheduled consultation.

**Methodological recommendations for preparing for the discussion**

Learning process that actively uses interactive methods of training, is organized taking into account the inclusion in the research process and knowledge of all students in the group. At the same time, the joint collective activity means that everyone makes their own individual contribution in the course of work and discussion, there is an exchange of ideas, knowledge, ways of activities. Interactive methods are based on the principles of activity learners, interactions, the use of group experiences and obligatory feedback. The created communication environment is characterized by interaction of participants, openness, equality of arguments, the accumulation of shared knowledge, the possibility of mutual control and evaluation.

Interactive means to interact, to be in the mode of dialogue, conversation. The main thing is that interactive methods, unlike active ones, are focused on broader interaction of students not only with the teacher, but also with each other and on the dominance of students' activity in the learning process. The teacher's role in such classes is to direct the students' activities to achieve the goals of the lesson.

The purpose of the discussion as a method of an interactive teaching method is to create a comfortable learning environment in which a student or listener feels his intellectual worth, his success. This is what makes the learning process itself productive, provides knowledge and skills, and creates the basis for working on solving problems after the training is over.

 Discussion, as one of the interactive methods, is accompanied by the purposeful exchange of ideas, opinions, thoughts between students groups.

Principles of working in an interactive lesson in the form of a discussion:

- each participant in the discussion on any issue has the right to his own opinion;

- the absence of direct criticism of the individual, only an idea can be criticized;

- everything that is discussed and said during the discussion is not a guide to action, but information for thought.

**Methodological recommendations for the preparation of a scientific report**

One of the forms of student's independent work is preparation of scientific report, for its discussion at a practical (seminar) lesson. The purpose of the scientific report is to develop students' analytical skills of working with scientific literature, analysis of controversial scientific positions, argumentation of their own views. Preparation of scientific reports also develops the creative potential of students.

A scientific report is prepared under the guidance of a teacher who conducts practical (seminar) classes.

Recommendations for the student:

- before starting work on writing a scientific report, agree with the supervisor topic, structure, literature, and discuss key issues to be addressed in the report;

- submit a report in writing to the supervisor;

- speak at a seminar with a 10-15 minute presentation of the scientific report, answer the questions of the students of the group.

Requirements:

* to the design of the scientific report: font – Times New Roman, size of

font -14, line spacing -1.5, margin size - 2.5 cm, indent at the beginning of the paragraph -1.25 cm, formatting in width); report sheets bound by a folder. The title page indicates the name of the educational institution, the name of the department, the name of the subject, topic of the report, full name of the student;

- to the structure of the report: table of contents, introduction (the relevance, goal and objectives should be indicated), main part, author's conclusions, list of references (not less than 5 positions). The volume should be agreed with the teacher. In the end of work, the date of its completion and the signature of the student who completed work are put.

The overall grade for the report takes into account the content of the report, its presentation, as well as answers to questions. The report may include flow charts, graphs, diagrams, small tables that clearly illustrate the logic reasoning, confirm the conclusions of the author. All inscriptions, numbers must be well readable. It is also advisable to reflect the main wording of the problems, the author's proposals in the presentation, since it will be easier to discuss them in the group. Questions of a clarifying nature can be asked during the report, and a problematic discussion is carried out after the author of the report has fully stated his positions. To participate in the discussion of the problems raised in the report, all students should study this topic in preparation for the seminar and be able to both ask questions and answer them. At the same time, the speaker presents the problem in the most profound and expanded form. The task of the speaker is to structure his presentation in such a way that it becomes the basis for the subsequent discussion.

**Methodical recommendations for working with literature**

Any form of student independent work (preparation for seminar, writing an essay, abstract, report, etc.) begins with the study of relevant literature both in the library and at home. For each topic of the subject, the main and additional literature are prepared. The main literature includes textbooks and tutorials. Additional literature includes monographs, collections of scientific papers, magazine and newspaper articles, various reference books, encyclopedias, Internet resources.

Recommendations for the student:

- the selected monograph or article should be carefully looked through. In books, you should familiarize yourself with the table of contents and scientific reference apparatus, read the annotation and preface.

It is advisable to scroll through it, consider illustrations, tables, diagrams, applications. Such a superficial acquaintance will allow to find out, what chapters should be read carefully and what chapters should be read quickly;

- in a book or magazine belonging to the student himself, key positions can be marked with a marker or marked in the margins. When working with the Internet - source, it is also advisable to highlight an important information;

- if the book or magazine is not the property of the student, then it is advisable to write down the page numbers that attracted attention. Later you should return to them, re-read or rewrite the necessary information. The physical action of writing down helps firmly put this information into the "memory bank".

Recordings in one or another form not only contribute to understanding and assimilation of the studied material, but also help to develop skills of clear presentation in writing of theoretical questions.

1. **List of IT resources, incl. the list of software, information and reference systems.**

**11.1. Software:**

1. Windows, Microsoft Office software.

2. ESET Endpoint Security antivirus software

**11.2 Databases and information and reference systems**

1. Garant information and reference system.

 2. Consultant Plus legal information system;

3. <http://ru.wikipedia.org/wiki/Wiki> e-encyclopedia

 4. http://www.skrin.ru/ database

 **5. Information and analytical system Bloomberg**

**6. Environment for development of software with open code for the programming language R «RStudio»**

**7. Applied package for statistical analysis «Statistica»**

**8. Applied software package for econometric modeling «Gretl»**

**9. Modeling environment «MatLab».**

**11.3Certified software/hardware used for information protection**

Is not provided.

 **12. Description of the material and technical base necessary for the implementation of the educational process on the subject**

To implement the educational process in the subject, it is necessary to have audiovisual equipment in the classroom.