Syllabus
for PRINCIPLES OF BANKING AND FINANCE

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Course description

The course Principles of Banking and Finance is an introductory two-semester course for third-year undergraduate students. The course is taught in English. Russian is used as supplementary language to explain basic concepts, because some students also study for the Russian degree in Economics, whereby knowledge of the Russian terminology is required.

The approach of the course is analytical and emphasizes the link between microeconomics and banking and finance. The first part of the course is devoted to principles of finance. It covers the essentials of capital budgeting and securities valuation, as well as basic asset pricing theories and the efficient market hypothesis. The second part deals with principles of banking. It compares different banking systems and discusses the standard tools of risk management for financial institutions, the regulation of the banking system, and the role and rationale of financial intermediation in the economy.

Course prerequisites

Students are supposed to be competent in basic economic analysis up to the level of the Introductory Macroeconomics and Microeconomics, and in calculus taught in the first and second years of studies. Students are also expected to be familiar with the principles of statistics and accounting.

The course itself provides a basis (and thus serves as a prerequisite) for more advanced courses of in banking and finance such as Corporate Finance, Investment Management, etc.

Course objectives

The primary objective of the course is to equip students with a solid basis in banking and finance.

In the first part of the course, emphasis is laid on the key concepts of modern theory of finance such as the time value of money, the absence of arbitrage, the risk-return trade-off, the notion of diversifiable risk and its implications for asset pricing, and the different forms and tests of market efficiency. Students are also expected to acquire knowledge about standard financial assets and the risks they carry.

In the second part of the course, students learn about the consequences of asymmetric information and transaction costs on banking. At the end of the course, they should also be able to highlight the main differences between financial systems, explain the role and origins of financial intermediaries, the methods used by banks to manage various types of risk, and the rationale for bank regulation.

Students are also expected to be able to discuss the main factors and developments of the 2007-2009 financial crisis.

Forms of control and grade determination

Control takes the following forms:

⇒ written home assignments;

⇒ class-work;

⇒ mid-term exams in the middle and by the end of the Fall semester and in the middle of the Spring semester;

⇒ final exam by the end of the Spring semester.

Course grade is determined by

⇒ Final exam grade (50%) [University of London exam grade for the students studying the course for both Internal and International degrees; Internal exam grade for the students studying the course for Internal degree only]

⇒ Mid-term tests (18%) – (8% - Fall mid-term test, 10% - Spring mid-term test)

⇒ Winter exam (12%)

⇒ Home assignments during the year (10%)

⇒ Class-work during the year (10%).

Fall semester is graded on the basis of home-assignments (15%), Fall mid-term test (25%), Winter exam (50%) and class-work (10%).

Literature

Main texts

1. [ME] Mishkin F., Eakins S., *Financial Markets and Institutions*, Pearson, 2012, 7th Ed.
2. [SM] Saunders, A., Cornett, M., *Financial institutions management*, McGraw-Hill Higher Education, 2nd Ed., 2000.
3. [BMA] Brealey, R.A., Myers S.C., Allen, F., *Principles of Corporate Finance*, Mc»Graw Hill/Irwin, 2011. 10th Ed.
4. [BM] Berk, J., DeMarzo, P., *Corporate Finance*, 3rd Ed., Pearson, 2014.

Supplementary reading

1. [AG] Allen F., Gale D. Comparing Financial systems. MIT Press, 2001.
2. [BT] Buckle, M., Thompson, J. The UK Financial system: theory and practice. Manchester University Press, 1998
3. [CW] Copeland, T.E., Weston, J.F. Financial Theory and Corporate Policy. Addison-Wesley Publishing Company, 1998.
4. [FM] Fabozzi,F., Markowitz, H. The Theory and Practice of Investment Management: Asset Allocation, Valuation, Portfolio Construction, and Strategies, Wiley 2nd Edition

UoL resources

UoL virtual learning environmnent
UoL study guide

Course Outline

Part I. Principles of Finance

1. Financial markets and instruments.
Functions of the financial system. Types of financial intermediaries. Financial instruments (debt, equity, derivatives). Market structures (OTC vs centralized exchanges, primary vs secondary markets, etc.). Money and Capital Markets.

References:
- SC, Part I.
- ME, Ch. 1,2, 11-14, 20-22.

2. Consumption and investment with and without capital markets.
Consumption and investment without capital market (one person / one good economy). Production possibility frontier. The condition of the optimal allocation (utility maximization).
Consumption with capital markets. Interest rate as the price of deferred consumption or the rate of return on investment. Fisher separation theorem.

References:
- CW, Ch. 1

3. Capital Budgeting and Valuation
Methods of project's valuation. Cash Flows. Concepts of present value and opportunity cost of capital. NPV, IRR, Payback period.

References:
- BM, Ch 7,8.
- BMA, Ch. 2,5, 6.

4.Valuation of Fixed-Income Securities
Coupon and Discount Bonds. Annuities and Perpetuities. Valuation by absence of arbitrage. Yield Curve. Term Structure Theories. Corporate bonds.

References:
- BM, Ch 5, 6.
- BMA, Ch. 3.
- ME, Ch. 5.

5. Risk and return
Mathematical characteristics of risk and return. Risk premia. Risk-return trade-off. The risk and return of the portfolio. Correlation of returns. Benefits of diversification. Systematic and non-systematic risks. Mean-variance portfolio theory: Efficient Frontier, Capital Market Line, Tangent portfolio, Two-fund separation theorem.

References:
- BM, Ch. 10.
- BMA, Ch. 7, 8.

6. Asset pricing theories
CAPM and securities market line. Single- and multi-factor models. Factor-replicating portfolios. Arbitrage Pricing Theory (APT). Theoretical and empirical validation of CAPM and APT.

References:
- BM, Ch. 11.
- CW, Ch. 6.
- Perold, A. (2004), The Capital Asset Pricing Model, *Journal of Economic Perspectives*, Vol. 18 (3), 3-24

7. Stock valuation
Valuation of Stocks: Fair Price. DCF Models. Gordon Growth Model.

References:
- BM, Ch. 9, 12.
- BMA, Ch. 9.

8. Efficient markets
Weak, semi-strong, strong efficiency. Empirical tests of the weak-form: technical analysis, momentum and reversal, Seasonal effects. Empirical tests of the semi-strong form: performance of professional investors, event studies. Tests of the strong-form: Insider trading. Rational (friction-based) vs behavioral explanations of anomalies.

References:
- BM,. Ch. 13.
- CW, Ch. 10, 11.
- Fama, E., *Efficient Capital Markets: A Review of Theory and Empirical Work*, The Journal of Finance, Vol. 25, No. 2, 1970, pp. 383-417. Stable URL: http://www.jstor.org/stable/2325486

9. Introduction to Derivatives
Forward and futures. Options. Swaps.

References:
- BM,. Ch. 21.
- BMA, Ch. 20.

Part II. Principles of Banking

7. Economic analysis of financial structure

Why do financial intermediaries exist? Transaction costs. Asymmetric information: adverse selection and moral hazard, principal-agent problem. Maturity, size and risk transformation. Economy of scale and economy of scope. The ways to minimize principal-agent costs: collateral, guarantees, capital requirements, self-regulation, credit bureaus.

References:

- ME, Ch. 7, 17.

8. Financial intermediation

Direct and indirect finance. Banks. S&L institutions. Co-operative banks. Mutual funds. Pension funds. Insurance companies. Term structure of liabilities. The problem of excess regulation. Disintermediation.

References:

- ME, Ch. 2, 9, 20-22.
- FM, Ch. 8-11.
- BT, Ch. 2.

9. Bank management: retail, wholesale, investment banks.

Retail banking: current account and time deposits, micro-financing, consumer loans, mortgages, asset-backed securities, payment and credit cards.
Wholesale banking: large-scale loans, trade financing, loan commitments, commercial and standby letters of credit, asset management, syndicated loans, arrangement and underwriting of corporate bonds.
Investment banks: structure of transactions, risk sharing, syndicated loans, arrangement and underwriting of bonds.

References:

- BT, Ch. 3, 4, 11.

10. Risk management and internal control in banks.

Asset-side and liability-side liquidity risks. Liquidity gaps. Liquidity management and the role of reserves. Asset-liability management. Purchase of funds. Treasury.
Interest rate margin. Interest rate risk. Fixed- and floating-rate assets and liabilities. Interest rate gaps.
Credit risk. Types of credit risk (industrial, regional and country risks). Diversication of loan portfolio.
Currency risk. Long and short open positions.
Capital adequacy. Economic capital.

References:

- ME, Ch. 17, 23, 24.
- SM, Ch. 4-6.

11. Banking regulation.
Banking supervision and inspection (on-sight and off-sight regulation). Capital adequacy ratio. The Basel accords on risk-based capital requirement (Basel I and Basel II). Liquidity ratios. Open currency positions. CAMEL. Disclosure requirements. Free banking. Government safety nets. Deposit insurance.
Banking crises.

References:
- ME, Ch. 8, 18.
- BT, Ch. 17, 18.

12. Financial Systems Compared.
Bank-based and market-based systems. Islamic banking. Emerging markets. Financial crises: banking, currency and debt crises. The peculiarities of the Russian banking systems.

References:
- ME, Ch. 16.
- AD, Ch. 1-3.

Distribution of hours

1. Consumption and investment with and without capital markets	18	4	4	10
2 Capital Budgeting and Valuation.	20	4	6	10
3. Risk and return	24	6	6	12
4. Asset pricing theories	24	6	6	12
5. Financial markets and instruments	24	6	6	12
6. Effective markets	28	8	6	14
Fall semester	**120**	**30**	**30**	**60**
7. Economic analysis of financial structure	18	4	4	10
8. Financial intermediation	22	6	6	10
9. Bank management: retail, wholesale, investment banks	16	4	4	8
10. Risk management and internal control in banks	32	8	8	16
11. Banking regulation	24	6	6	12
12. Financial Systems Compared	16	4	4	8
Spring Semester	**128**	**32**	**32**	**64**
Total	**248**	**62**	**62**	**124**