

**UNIVERSITY OF NATIONAL AND WORLD ECONOMY -
SOFIA**

FACULTY OF FINANCE AND ACCOUNTING

CURRICULUM

For

Academic discipline:

**MONETARY THEORY AND MONETARY
POLICY - INTRODUCTORY-INTERMEDIATE
COURSE**

Assoc. Prof. Dr. Silvia Trifonova

ANOTATION

The course “**Monetary Theory and Monetary Policy – Introductory - Intermediate course**” is being taught to the students in the Specialty of Finance, Bachelor’s Degree and Master’s Degree at the University of National and World Economy (UNWE), Sofia.

The introductory-intermediate course in Monetary Theory and Monetary Policy aims at introducing the students to the essence and functions of money, interest rates, and money creation. It analyzes the issues of central bank operation as well as its independence. The course places special emphasis on the goals and targets of monetary policy. It focuses on the instruments and conduct of the central banks’ monetary policy.

The course provides in-depth analysis of contemporary financial crises - their causes, specifics and consequences. It places special emphasis on the 1996-1997 financial crisis in Bulgaria. The course offers thorough analysis of currency board arrangements in general, and the Bulgarian currency board specifically.

One important part of the course is dedicated to the latest developments in monetary theory. Special attention is drawn on the different concepts of the demand for money function, as well as on the empirical evidence. The course analyses the relationship between money, output and inflation. Adaptive and rational expectations are treated extensively as well as their significance for inflation and output. The course treats also the expectations augmented Phillip’s curve, and the Lucas critique of policy evaluation. Special emphasis is place on the new classical macroeconomic model, new Keynesian mode, and the comparison of the two new models with the traditional model.

MODULE CONTENTS

A. LECTURES

№	TOPIC	HOURS
I PART. INTRODUCTION		
1.	<u>MONEY</u> Meaning of money. Functions of money. Evolution of the monetary (payments) system. Measuring money. Reliability of money stock data.	1
II PART. INTEREST RATES		
2.	<u>UNDERSTANDING INTEREST RATES</u> Essence of interest rates. Measuring interest rates. Present value.	2

	Yield to maturity. Prices of financial instruments. Alternative measures of interest rates. Real and nominal interest rates. The theory of asset demand. Determinants of asset demand. Asset diversification.	
3.	<p align="center"><u>THE BEHAVIOUR OF INTEREST RATES. THE RISK AND TERM STRUCTURE OF INTEREST RATES</u></p> <p>Supply and demand in the bond market: the loanable funds framework. Changes in equilibrium interest rates. Supply and demand in the money market: the liquidity preference framework. Changes in equilibrium interest rates in the liquidity preference framework. Money supply and interest rates.</p> <p>Risk structure of interest rates. Term structure of interest rates.</p>	3
<p>III PART. MONEY CREATION (MONEY SUPPLY) AND MONETARY POLICY</p>		
4.	<p align="center"><u>THE CENTRAL BANK AND COMMERCIAL BANKS. MULTIPLE DEPOSIT CREATION AND THE MONEY SUPPLY PROCESS</u></p> <p>The central bank balance sheet and monetary base. Commercial bank balance sheet. Participants in the money supply process. Control of monetary base.</p> <p>Multiple deposit creation: a simple model. Critique of the simple model.</p>	2
5.	<p align="center"><u>DETERMINANTS OF THE MONEY SUPPLY. THE COMPLETE MODEL OF MONEY SUPPLY.</u></p> <p>The money supply model and the money multiplier.</p> <p>Factors that determine the money multiplier. Cash ratio C/D. Explanation of banks behavior. Factors that explain excess reserves. Full model of money supply. Additional factors that determine the money supply. Bank panics.</p>	2
6.	<p align="center"><u>INSTITUTIONAL ORGANIZATION OF THE CENTRAL BANK. GOVERNMENT SPENDING FINANCING AND THE MONETARY BASE.</u></p> <p>The central bank origin. The central bank structure. The central bank independence. The central bank balance sheet, monetary base, and reserve equation. Determinants of monetary base. Fiscal deficits and the monetary base.</p>	2

7.	<p align="center"><u>MONETARY POLICY INSTRUMENTS. CONDUCT OF MONETARY POLICY: GOALS AND TARGETS</u></p> <p>Open market operations. Discount policy. Reserve requirements. Administrative (non-market) instruments.</p> <p>Goals of monetary policy. Intermediate and operating targets of monetary policy. Choosing intermediate and operating targets. Historical perspective of monetary policy. Rules versus discretion. Monetary policy rules.</p>	3
8.	<p align="center"><u>FINANCIAL CRISES</u></p> <p>Causes and main features of financial crises. The 1996-1997 financial crisis in Bulgaria: causes, major developments and the monetary policy under the IMF-supported IV Stand-by Agreement.</p>	1
9.	<p align="center"><u>CURRENCY BOARDS</u></p> <p>The nature of a currency board arrangement. Currency board types. Strengths and weaknesses of the currency boards. Balance sheet of the currency board. Money supply process in a currency board system. The banking system under a currency board. The fiscal policy under a currency board.</p> <p>The Bulgarian currency board: introduction, institutional framework, functions, specifics and effects. Bulgaria's exit strategy in the context of acceding the European Economic and Monetary Union.</p>	3
IV PART. MONETARY THEORY		
10.	<p align="center"><u>DEMAND FOR MONEY</u></p> <p>Quantity theory of money. Keynes's liquidity preference theory. Contemporary developments in the Keynesian Approach. Friedman's modern quantity theory of money.</p> <p>Empirical evidence on the demand for money. Stability of money demand. Causality from money to income. Money demand and money supply considered together.</p>	2
11.	<p align="center"><u>THE IS-LM MODEL. MONETARY AND FISCAL POLICY IN THE IS-LM MODEL</u></p> <p>The ISLM model. The IS-LM approach to aggregate output and interest rates. Factors that shift the IS curve. Factors that shift the LM curves. Changes in equilibrium level of the interest rates and aggregate</p>	2

	<p>output.</p> <p>Effectiveness of monetary versus fiscal policy. Targeting money supply versus interest rates. IS-LM model and the aggregate demand curve.</p>	
12.	<p><u>AGGREGATE DEMAND AND SUPPLY ANALYSIS.</u></p> <p>Aggregate demand. Aggregate supply. Equilibrium in aggregate supply and demand analysis. Aggregate supply and Philip's curve.</p>	2
13.	<p><u>TRANSMISSION MECHANISMS OF MONETARY POLICY: THE EVIDENCE</u></p> <p>Framework for evaluating empirical evidence. Early Keynesian evidence on the importance of money. Early monetarist analysis on the importance of money. Transmission mechanisms of monetary policy: traditional interest rate channel, other asset price channels, credit view, exchange rates channel, etc.</p> <p>Financial intermediation, credit booms and economic growth.</p>	2
14.	<p><u>MONEY AND INFLATION</u></p> <p>Money and inflation. Meaning of inflation. Views of inflation: monetarist and Keynesian views. Monetary policy and inflation. Activist/Non-activist policy debate.</p>	2
15.	<p><u>RATIONAL EXPECTATIONS AND THE EFFICIENT MARKET HYPOTHESIS. IMPLICATIONS FOR POLICY.</u></p> <p>The theory of rational expectations. The efficient market hypothesis. Evidence on the efficient market hypothesis.</p> <p>Expectations, inflation and output. The expectations augmented Phillip's curve. The Lucas critique of policy evaluation. New classical macroeconomic model. New Keynesian model. Comparison of the two new models with the traditional model.</p>	2

B. SEMINARS

№	TOPIC	HOURS OF TUITION	NON- CONTACT HOURS
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I PART. INTRODUCTION			
1.	<p><u>MONEY</u></p> <p>Meaning of money. Functions of money. Evolution of the payments system. Measuring money. Reliability of money stock data.</p>	1	2
II PART. INTEREST RATES			
2.	<p><u>UNDERSTANDING INTEREST RATES</u></p> <p>Essence of interest rates. Measuring interest rates. Present value. Yield to maturity. Prices of financial instruments. Alternative measures of interest rates. Real and nominal interest rates. The theory of asset demand. Determinants of asset demand. Asset diversification.</p>	2	4
3.	<p><u>THE BEHAVIOUR OF INTEREST RATES.</u></p> <p><u>THE RISK AND TERM STRUCTURE OF INTEREST RATES</u></p> <p>Supply and demand in the bond market: the loanable funds framework. Changes in equilibrium interest rates. Supply and demand in the money market: the liquidity preference framework. Changes in equilibrium interest rates in the liquidity preference framework. Money supply and interest rates.</p> <p>Risk structure of interest rates. Term structure of interest rates.</p>	3	6
III Part. MONEY CREATION (MONEY SUPPLY) AND MONETARY POLICY			
4.	<p><u>THE CENTRAL BANK AND COMMERCIAL BANKS. MULTIPLE DEPOSIT CREATION AND THE MONEY SUPPLY PROCESS</u></p> <p>The central bank balance sheet and monetary base. Commercial bank balance sheet. Participants in the money supply process. Control of monetary base. Multiple deposit creation: a simple model. Critique of the simple model.</p>	2	4
5.	<p><u>DETERMINANTS OF THE MONEY SUPPLY.</u></p> <p><u>THE COMPLETE MODEL OF MONEY SUPPLY.</u></p>	2	4

	<p>The money supply model and the money multiplier.</p> <p>Factors that determine the money multiplier. Cash ratio C/D. Explanation of banks behavior. Factors that explain excess reserves. Full model of money supply. Additional factors that determine the money supply. Bank panics.</p>		
6.	<p><u>INSTITUTIONAL ORGANIZATION OF THE CENTRAL BANK. GOVERNMENT SPENDING FINANCING AND THE MONETARY BASE.</u></p> <p>The central bank origin. The central bank structure. The central bank independence. The central bank balance sheet, monetary base, and reserve equation. Determinants of monetary base. Fiscal deficits and the monetary base.</p>	1	2
7.	<p><u>MONETARY POLICY INSTRUMENTS. CONDUCT OF MONETARY POLICY: GOALS AND TARGETS</u></p> <p>Open market operations. Discount policy. Reserve requirements. Administrative (non-market) instruments.</p> <p>Goals of monetary policy. Intermediate and operating targets of monetary policy. Choosing intermediate and operating targets. Historical perspective of monetary policy. Rules versus discretion. Monetary policy rules.</p>	3	6
8.	<p><u>FINANCIAL CRISES</u></p> <p>Causes and main features of financial crises. The 1996-1997 financial crisis in Bulgaria: causes, major developments and the monetary policy under the IMF-supported IV Stand-by Agreement.</p>	2	4
9.	<p><u>CURRENCY BOARDS</u></p> <p>The nature of a currency board arrangement. Currency board types. Strengths and weaknesses of currency boards. Balance sheet of the currency board. Money supply process in a currency board system. The banking system under a currency board. The fiscal policy under a currency board.</p>	2	4

	The Bulgarian currency board: introduction, institutional framework, functions, specifics and effects. Bulgaria's exit strategy in the context of acceding the European Economic and Monetary Union.		
IV PART. MONETARY THEORY			
10.	<p style="text-align: center;"><u>DEMAND FOR MONEY</u></p> <p>Quantity theory of money. Keynes's liquidity preference theory. Contemporary developments in the Keynesian Approach. Friedman's modern quantity theory of money.</p> <p>Empirical evidence on the demand for money. Stability of money demand. Causality from money to income. Money demand and money supply considered together.</p>	2	4
11.	<p style="text-align: center;"><u>THE IS-LM MODEL. MONETARY AND FISCAL POLICY IN THE IS-LM MODEL</u></p> <p>The ISLM model. The IS-LM approach to aggregate output and interest rates. Factors that shift the IS and LM curves. Changes in equilibrium level of the interest rates and aggregate output.</p> <p>Effectiveness of monetary versus fiscal policy. Targeting money supply versus interest rates. IS-LM model and the aggregate demand curve. търсене.</p>	2	4
12.	<p style="text-align: center;"><u>AGGREGATE DEMAND AND SUPPLY ANALYSIS.</u></p> <p>Aggregate demand. Aggregate supply. Equilibrium in aggregate supply and demand analysis. Aggregate supply and Philip's curve.</p>	2	4
13.	<p style="text-align: center;"><u>MONEY AND INFLATION</u></p> <p>Money and inflation. Meaning of inflation. Views of inflation: monetarist and Keynesian views. Monetary policy and inflation. Activist/Non-activist policy debate.</p>	2	4
14.	<p style="text-align: center;"><u>TRANSMISSION MECHANISMS OF</u></p>	2	4

15.	<p><u>MONETARY POLICY: THE EVIDENCE</u></p> <p>Framework for evaluating empirical evidence. Early Keynesian evidence on the importance of money. Early monetarist analysis on the importance of money. Transmission mechanisms of monetary policy: traditional interest rate channel, other asset price channels, credit view, exchange rates channel, etc.</p> <p>Financial intermediation, credit booms and economic growth. Credit expansion in Bulgaria: economic growth and potential risks.</p> <p><u>RATIONAL EXPECTATIONS AND THE EFFICIENT MARKET HYPOTHESIS. IMPLICATIONS FOR POLICY.</u></p> <p>The theory of rational expectations. The efficient market hypothesis. Evidence on the efficient market hypothesis.</p> <p>Expectations, inflation and output. The expectations augmented Phillip’s curve. The Lucas critique of policy evaluation. New classical macroeconomic model. New Keynesian model. Comparison of the two new models with the traditional model.</p>	2	4
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LEARNING OUTCOMES

The subject “Monetary Theory and Monetary Policy – Introductory - Intermediate course” will provide foundation knowledge of:

- Money, money supply and demand for money;
- Money theories and models for demand of money function, inflation, rational expectations, etc.;
- Money creation and its determinants, banks and public behavior in the money creation process;
- Central Bank’s functions, operation, principles and objectives;
- Monetary policy of the Central Bank – its formulation and implementation;
- Interest rates and their determinants;
- Monetary policy systems and currency board arrangements;

- Currency board in Bulgaria – its introduction, functioning, pros and cons and major effects.

The subject will provide the following skills:

- Analytical skills useful for evaluating the effectiveness of the monetary and fiscal policy;
- Ability to critically analyze the Central Bank’s monetary policy, monetary policy regimes, financial crises and other topics;
- Ability to analyze the functioning of the currency board in Bulgaria and its major effects on the economy.

INDICATIVE READING

A. MAIN

In Bulgarian

1. Mladenov, M., Money. Banks. Credit, Publishing House “PRINCEPS”, Sofia, 2002.
2. Trifonova, S., Monetary Theory, Monetary Policy, European Monetary Integration, University Publishing House “Stopanstvo”, UNWE, Sofia, 2006.
3. Trifonova, S., Currency Board, Bank System and Financial Development University Publishing House “Stopanstvo”, UNWE, Sofia, 2002.
4. Kolev, B., M. Glaveva, S. Trifonova, Money and Banks, Foundation „Young Bulgaria”, Sofia, 2003.
5. Keynes, J. M., The General Theory of Employment, Interest and Money, Publishing House “PRINCEPS”, Sofia, 2001.
6. Nenovsky, N., Demand for money in transforming economies, Sofia, 1997.
7. Hanke, S., K. Schuler, Currency Board and Financial Stabilization, Friedrich Ebert Foundation, 1997.
8. Roussenova, L. and co-authors, Challenges facing financial sector and financial intermediation in Bulgaria in the context of its integration into the European Union, UNWE, Sofia, 2006.
9. Minassian, G., Financial Programming, 2nd ed., Publishing House „Litavra”, Sofia, 2004.
10. Trifonova, S., Efficiency of the currency board arrangement in Bulgaria in the process of integration, Banks. Investments. Money, Vol. 2, Sofia, 2002, pp. 10–22.

11. Trifonova, S., Results from the currency board's operation in Bulgaria, UNWE, Scientific Works 2001, Vol. 1, University Publishing House "Stopanstvo", Sofia, 2001, pp. 77 – 114.
12. Papers and materials on the personal website of Assoc. Prof. Dr. Silvia Trifonova: www.silvia-trifonova.microstat-analytics.com.
13. Papers and materials on the personal website of Prof. Nikolay Nenovsky: www.nenovsky.com.

In English

14. Baumol, W. The Transactions Demand for Cash: An Inventory Theoretic Approach, Quarterly Journal of Economics, 1993.
15. Mishkin, Fr., The Economics of Money, Banking, and Financial Markets., 7th ed., Pearson Addison Wesley, 2004.
16. Roussenova, L., The 1996-1997 Financial Crisis in Bulgaria, paper presented at the International Seminar on Comparative Experiences in Confronting Central Banking problems, organized by the World Bank, the IMF, the EBRD and the National Bank of Poland, Warsaw, Poland, April 2002, www.europeaninstitute.net; www.worldbank.org/finance/html/ECA_banking.html
17. Roussenova, L., Proykova, A. and Stauffer, D. Nucleation of Market Shocks in Sornette-Ide Model, Quantitative Finance, Vol. 3 (2003), 1-4.
18. Roussenova, L., The Bulgarian Currency Board: Specifics, Experience, and Possible Challenges, paper presented at a conference, organized by London Business School in 2001, www.europeaninstitute.net.
19. McCallum, Bennett, Monetary Economics. Theory and Policy, Macmillan, New York.
20. A Dictionary of Finance and Banking, Oxford University Press, 2005.
21. Bailey, R.E., The Economics of Financial Markets, Cambridge University Press, 2005.
22. Eden, B., A course in Monetary Economics, Blackwell Publ., 2005.
23. Apps, R. D. Goacher, The monetary and financial system, Sheffield Hallam University, 1996.
24. Cooper, S. K., D. R. Fraser, G. C. Uselton, Money, the Financial system, and Economic Policy, Addison-Wesley Publ.Co., 1993.
25. Mayer, T., J. S. Duesenberry, R. Z. Aliber, Money, banking, and the economy, W. W. Norton & Company, 1993.
26. Mishkin, F., International Experiences with Different Monetary Policy Regimes, NBER Working Papers, No. 7704, 1999.
27. ECB, The monetary policy of the ECB, European Central Bank, Frankfurt am Main, 2004, <http://www.ecb.int/pub/html/index.en.html>.

B. ADDITIONAL

In Bulgarian

1. Issing, O., Introduction in theory of money, Munich, 1996.
2. Nenovsky, N., Free money. Questions to the economic theory, Publishing House “Marin Drinov”, 2001.
3. Avramov, R., Money and de/stabilization in Bulgaria 1948-1989, Publishing House “Siela”, Sofia, 2008.
4. Avramov, J., D. Popov, Theory and history of money and credit, Publishing House “Siela”, Sofia, 2003.
5. Avramov, J., Power of money, Publishing House “Siela”, Sofia, 2005.
6. Avramov, J., Euro – our tomorrow money, Sofia University „St. Kliment Ohridski”, Sofia, 2006.
7. BNB, series «Discussion Papers», review «Economic Review», Annual Report of BNB, Semiannual Report of BNB, Monthly Information Bulletin of BNB, series «Banks in Bulgaria», Statistics - www.bnb.bg
8. Reviews - “Economic Thought”, “Budget” (Ministry of Finance), “Government Securities and Debt” (BNB and Ministry of Finance), “Banks. Investments. Money”, etc.
9. Internet websites: Government of the Republic of Bulgaria - www.minfin.bg, Ministry of Finance of the Republic of Bulgaria - www.government.bg, Bulgarian National Bank /BNB/ – www.bnb.bg, EU Structural Funds - www.eufunds.bg, etc.

In English

10. Campbell, C., Campbell, R., An Introduction to Money and Banking, 1984.
11. Baumol, W. The Transactions Demand for Cash: An Inventory Theoretic Approach, Quarterly Journal of Economics, 1993.
12. BNB, Monetary and Fiscal Policies in South-East Europe: Historical and Comparative Perspective, Bulgarian National Bank, 2006.
13. Enoch, Ch., J. Green, Banking Soundness and Monetary Policy, IMF, 1997.
14. Friedman, M., A. Meltzer, J. Tobin, P. Davidson, D. Patinkin, Milton Friedman’s Monetary Framework, The University of Chicago Press, Chicago and London, 1974.
15. Friedman, M., The Role of Monetary Policy, American Economic Review, 1968.
16. Friedman, M., The Demand for Money, Journal of Political Economy, August 1959.
17. Friedman, M., A Theoretical Framework for Monetary Analysis, Journal of Political Economy, 1970.
18. Friedman, M., Schwartz, A., A Monetary History of the United States, 1897-1960.

19. Krugman, P., *Currencies and Crises*, The MIT Press, Cambridge, Massachusetts and London, England, 1998.
20. Krugman, P., M. Miller, *Exchange Rate Targets and Currency Bands*, NBER, Cambridge University press, 1992.
21. Mankiw, G., *Monetary Policy*, NBER, Chicago, London, 1994.
22. Williamson, J., *What Role for Currency Boards?* Institute for International Economics, Washington, D.C, 1995.
23. Harbison, W. A., *Monetary Policy for a Changing Financial Environment*, The AEI Press, 1990.
24. Woolley, J. T., *Monetary Apolitics: The Federal Reserve and the Politics of Monetary Policy*, Cambridge Univ. Press, 1985.
25. Brunner, K., Meltzer, A., *Predicting Velocity*, *Journal of Finance*, May 1963.