SCIENTIFIC NOVELTIES AT THE BANK OF ALBANIA

Contents:

I. *Friday Seminars*
II. *Recently Concluded Research Papers*
III. *Working Papers in Progress*
IV. *Articles*
V. *Other Activities*

I. FRIDAY SEMINARS

During the period July-December 2011, the Friday Seminar Series welcomed seven presentations, mostly from Bank of Albania participants, and also from domestic scholars. These presentations covered various issues, like: financial system, fiscal policy sustainability, exchange rate, trade relationships, and the contamination effects of the global financial crisis. In the following, you can find a detailed description of the presented materials.

"THE IMPACT OF GLOBAL FINANCIAL CRISIS ON THE ECONOMIES OF SOUTH-EASTERN EUROPE", BY EVIS KOPLIKU, THIRD PRIZE WINNER OF GOVERNOR'S AWARD FOR THE BEST DIPLOMA OF YEAR 2010

The aim of this study is to investigate the impact of the global financial crisis on four South-Eastern European countries: Albania, Bulgaria, Croatia, and Romania. This investigation is done by using Unit Root tests and Johansen Cointegration tests, and by employing quarterly time series data from 1990 to 2009. First, this study identifies the possible transmission channels of the crisis grounded on empirical research and theoretical approaches relevant to the crisis. Once the variables have been identified as possible transmission channels, the author investigates their significance on the economic growth of the sample of the South-eastern European countries. Findings show that exports and credit have been significant transmission channels of the global crisis. Interestingly, FDIs are found to have a significant but negative effect on growth, while the impact of remittances is positive but not statistically significant. In the case of Bulgaria, all variables, but degree of openness, positively affect economic growth. In the case of Croatia, the results show that exports are the most significant transmission channel of the global crisis, whereas openness has a negative impact on economic growth. In the case of the new EU member, Romania, FDIs, credit and remittances are found to be statistically significant, indicating that being more integrated increases the significance of the global crisis on the growth. The three of them have a positive effect on growth. The findings of this study in the future might serve as a very useful

source of reference in developing policies, which try to minimize the costs of the global financial crisis.

"THE IMPACT OF TRADE ON GROWTH: A GRAVITY MODEL–BASED INSTRUMENT APPROACH ON POST-COMMUNIST EUROPE", BY ENDRIT YZEIRAJ, RESEARCH DEPARTMENT

The study is based on the literature initiated by Frankel and Romer (1999) on using instruments for predicted trade to analyze its effect on growth. It uses panel data to better control for possible time-invariant characteristics. The fall of communism is used as an exogenous shock to the system. The study finds that not all attempts at creating good instruments are successful. However, the successful attempts are the ones that have coefficient results comparable to the literature. Also, trade is found to have a positive and significant effect on a country's income.

"EQUILIBRIUM EXCHANGE RATE IN A DEVELOPING ECONOMY", BY BLEDAR HODA, RESEARCH DEPARTMENT

This study aims to estimate the equilibrium level of the real exchange rate by employing "The Statistical Approach of the Exchange Rate". This approach enables effects, such as Balassa Samuelson and terms of trade, to play an important role in guiding equilibrium RER. The estimation also includes other factors, like: the real interest rate differential and the level of foreign currency reserves of the banking system. The estimation employs vector error correction among variables with unit root. Empirical findings show that all the above-mentioned factors but the foreign currency reserves enter significantly a long-run

relationship with the real exchange rate. Also, the study shows that terms of trade and the Balassa-Samuelson proxy result to have the greatest impact to relatively affect the real exchange rate, while the other factors have only a marginal effect.

"SUSTAINABILITY OF FISCAL POLICY: THE CASE OF ALBANIA", BY GERTI SHIJAKU, RESEARCH DEPARTMENT

This study aims to estimate the long-run sustainability of fiscal policy, while answering at the same time the question: "Does the government undertake the right policies to avoid the excess accumulation of debt?". Empirical results show that developments in public debt-to-GDP ratio are sustainable, even though such behaviour lacks when such indicator is measured in real terms. These results are further confirmed by the statistical test, Phillips-Perron. Also, findings, under the assumptions of the reaction function, show that fiscal authorities react to increasing indebtedness by generating future surpluses, but not enough for debt to be mean-reverting in the long-run, leading to a non-Ricardian regime. Empirical analysis shows that fiscal policy has been relatively stable over time, even though the economic and financial global crisis have had a negative impact. Lastly, evidence seems to suggest that fiscal policy is relatively volatile when public debt is close or above the 60% of GDP ratio.

"HOW IS FINANCIAL PERFORMANCE OF BANKS IN ALBANIA INFLUENCED BY SOUND CORPORATE GOVERNANCE", BY ORIELA KODRA AND IRINI KALLUCI, RESEARCH DEPARTMENT

This paper provides an overview on bank governance relation with their performance captured by several financial indicators. Among these indicators, we can mention: the return on assets and equity; the growth rate of assets and capital, interest income and expenses, and the size of banks. To measure the quality of banks governance, the study employs the values of Banking Governance Index, extracted from Ceca et al. (2010). All relations between this index and financial indicators proved with the expected sign.

"FREE TRADE AGREEMENTS AND TRADE INTEGRATION AMONG SOUTH EASTERN EUROPEAN COUNTRIES: GRAVITY MODEL ESTIMATIONS", BY ALBAN PLLAHA, RESEARCH DEPARTMENT

This study aims to estimate the impact of bilateral free trade agreements on regional trade integration of South Eastern European Countries (SEE-9). The author analyses the trade flows between nine countries of South Eastern Europe. The study employs the GMM approach, which enables the incorporation of dynamics in panel data assessment into gravity model for trade. Findings of this study show that trade is impacted by GDP, free trade agreements, colonial links, neighbourhood, and physical transportation distance between countries.

"A FINANCIAL SYSTEM STRESS INDEX FOR ALBANIA", BY VASILIKA KOTA AND ARISA SAQE, FINANCIAL STABILITY DEPARTMENT

The latest financial crisis reflected the need to properly understand, to measure and possibly to project the systemic events, which have a high probability of causing the interruption of the normal functioning of the financial markets, resulting in a suffering of the economic growth. This paper presents a Financial System Stress Index for Albania, which aims to capture the level of financial stress of the economy in a single and comprehensive index (FSSIA). The authors assess the linkages of the different market segments through evaluating their impact on economic growth, providing in this way a clear method in discussing the evolution of the sub-indices of the banking sector, money market, foreign exchange rate, and housing market into financial stress. The results indicate that FSSIA captures the pressures in the form of the financial stress, not only from different market segments, but also from their interaction through cross correlation.

II. RECENTLY CONCLUDED RESEARCH PAPERS

"EMPIRICAL INVESTIGATION OF FORECAST UNCERTAINTY WITH MONTE CARLO SIMULATION", BY ALTIN TANKU, ELONA DUSHKU AND KLITI CECA, RESEARCH DEPARTMENT

The process of modelling variables and economic relationships at the Bank of Albania started with attempts of modelling inflation and building a structural model, MEAM. This model is mostly used to analyze scenarios and various shocks

to the economy and to forecast the main macroeconomic variables, based on actual and expected developments. However, each forecast is associated with various uncertainty sources, therefore, the evaluation of forecasting performance becomes as important as forecasting itself. The aim of this study is to estimate the error term performance resulting from the forecasting process done in MEAM, by employing Monte Carlo technique of stochastic simulation and by estimating the shape of the error term distribution, which help judge whether the obtained estimation is under- or over-estimated. The findings of the study show that, first, stochastic estimations generated from the model do not differ much, implying that the model is linear in terms of forecasts. This also implies that deterministic estimations are quite as good as stochastic ones. Second, the study showed that the model is not very sensitive to foreign shocks and thus the use of stochastic forecasts for some indicators is better than deterministic estimations. Lastly, a main conclusion is that macroeconomic forecasts are quite important, but understanding the uncertainty sources is even more important in the policy-making process and analysis of various effects.

"FISCAL POLICY AND ECONOMIC GROWTH: THE CASE OF ALBANIA", BY ARLIND GJOKUTA, MONETARY OPERATIONS DEPARTMENT, AND GERTI SHIJAKU, RESEARCH DEPARTMENT

This discussion material analyses the effects of fiscal policy on economic growth in the case of a small open developing country like Albania, by employing an OLS and GMM technique. The results obtained show that government revenue growth has a higher effect on economic growth versus fiscal stimulus through boosting expenditure. The impact of revenue and expenditure on growth were analyzed by categorizing tax revenue into distortionary and non distortionary and government expenditures into productive and non-productive. Under such categorization, the authors found that revenue sub-categories reduce growth, while distortionary taxation has much larger and statistically significant effect. On the other hand, the parameter values show that growth is effected positively by productive expenditure and negatively by non-productive. This material also analyses the impact of public debt on growth. Thus, a reduction in debt ratio will bring positive effects in terms of economic growth. In cases where government capital expenditure are financed by borrowing it brings more "crowding out" rather than "crowding in" effects.

"SUSTAINABILITY OF FISCAL POLICY: THE CASE OF ALBANIA", BY GERTI SHIJAKU, RESEARCH DEPARTMENT

This discussion material focuses on evaluating the long-run sustainability of fiscal policy by unit root approach, developed by Trehan and Walsh (1991) and Taylor (2002). Another topic discussed in this paper is whether the government undertakes the right policies to avoid excessive debt accumulation. Empirical findings demonstrate that the debt to GDP is mean-reverting over time, while there seems to be no evidence when this indicator is measured in real terms. This is also confirmed by PP test approach. On the other hand, findings under the

assumptions of the reaction function presume that fiscal authorities react to increasing indebtedness, by generating future surpluses, but not sufficient to avoid excessive debt accumulation, leading so to a non-Ricardian regime. Empirical analysis shows that fiscal policy has been relatively stable over time despite the negative impact of the economic and financial economic crisis. Lastly, the study suggests that fiscal policy is relatively volatile when public debt is close or above the 60% of GDP ratio.

"FISCAL BEHAVIOUR AND YIELD CURVE IN ALBANIA", BY ESIDA ABAZAJ, RESEARCH DEPARTMENT

This study aims to investigate the relationship between fiscal developments and the yield curve shape in Albania, for the period 2001-2010. The employed methodology in this study consists in impulse response functions and variance decompositions, estimated by VAR methodology, and Granger Causality tests between fiscal indicators and "latent" factors of the yield curve. Fiscal behaviour in this study is represented by the annual change of public debt-to-GDP ratio and fiscal deficit, expressed as a percentage of GDP. The yield curve is represented by its two "latent" factors, level and slope. The impulse response functions analysis shows that the annual change of public debt-to-GDP ratio and fiscal deficit influence the yield curve temporarily, and then such impact turns to be statistically insignificant. Results show that the annual change of debt-to-GDP ratio has the highest impact on the slope of the yield curve, while fiscal deficit, as a percentage of GDP, influences more the level of the yield curve.

"EQUILIBRIUM EXCHANGE RATE IN A DEVELOPING ECONOMY", BY BLEDAR HODA, RESEARCH DEPARTMENT

This material attempts to estimate the equilibrium level of the real exchange rate based on the statistical equilibrium of the exchange rate. Among alternative approaches, models based on macroeconomic determinants of the exchange rate equilibrium, like Internal-External Balance Approach, are quite sensitive to frequency, length and quality of time series. The statistical approach adopted in this material offers a feasible alternative in circumstances of short-time series, like in the case of Albania. The main disadvantage of this approach compared to the normative one is that the obtained exchange rate does not necessarily guarantee that all macroeconomic indicators are in equilibrium. The estimation of the exchange rate equilibrium in Albania uses the cointegration method among variables with unit root, and includes other explanatory variables, like: the real interest rate differential and the foreign exchange reserves level of the banking system. Findings of this material suggest that all the above-mentioned factors, but foreign exchange reserves, enter significantly a long-run relationship with the real exchange rate. Terms of trade and the Balassa Samuelson proxy impact relatively more the performance of the real exchange rate, while other factors have marginal effect. Another conclusion is that the real exchange rate and relative prices (tradable to non-tradable) are the ones, which adjust to restore equilibrium once the system is subject to a shock.

"CREDIT BEHAVIOUR IN ALBANIA: A SIGN OF CONVERGENCE OR A DEVIATION FROM ITS LONG-TERM TREND?" BY IRINI KALLUCI, RESEARCH DEPARTMENT

The unsustainable behaviour that characterized lending to the Albanian economy over the last decade deserves a more detailed analysis in order to better understand the reason of its tendencies. It becomes of high interest to understand whether such behaviour has been in alignment with its macroeconomic fundamentals or it is a deviation from its long-run equilibrium. To estimate the so-called equilibrium level of credit in the case of Albania, the author uses statistical methods, as well as econometric ones. Statistical methods generally suggest that lending in Albania, despite its high growth rates, especially after 2004, has not gone through boom periods. This so-called "hunger" of borrowers to obtain funds and of banks to grant loans, has been due to the lack of previous opportunities to invest and to generate considerable profits. On the other hand, using as a benchmark a large sample of developed and emerging countries, econometric estimations show that lending in Albania has somehow approached its equilibrium level. However, it is estimated that there is still room for credit to converge towards the level of developed countries.

"FREE TRADE AGREEMENTS AND TRADE INTEGRATION AMONG SOUTH EASTERN EUROPEAN COUNTRIES: GRAVITY MODEL ESTIMATIONS", BY ALBAN PLLAHA, RESEARCH DEPARTMENT

Considering the importance of bilateral free trade agreements on regional trade integration for South Eastern European Countries, the aim of this material is to measure the impact of these regional trade agreements, focusing on South Eastern European Countries (SEE-9). The study employs the GMM approach, which enables the incorporation of dynamics in panel data assessment into the gravity model for trade. Findings of this study show that actual trade is influenced by trade flows in the past. Another conclusion of the study is that GDP, FTAs, colonial links and neighbourhood have a positive impact on bilateral trade between two countries, while transportation costs, measured as the physical distance between two countries influence negatively their trade flows. Also, an interesting conclusion is that FTAs between countries have contributed positively to regional trade integration among South-Eastern European countries. Lastly, the study showed that bilateral trade flows among most of the South Eastern European countries are below their potential.

"HOW IS FINANCIAL PERFORMANCE OF BANKS IN ALBANIA INFLUENCED BY SOUND CORPORATE GOVERNANCE?" BY ORIELA KODRA AND IRINI KALLUCI, RESEARCH DEPARTMENT

Considering the high importance that corporate governance is gaining recently, this study aims to identify the relations between the quality of banks' governance and their financial indicators. The authors employ a cross-section analysis to estimate the relations between Banking Governance Index (BGI) and other variables, such as: return on equity and assets; the growth rate of assets, capital

and non-performing loans; interest income and expenses, and the size of banks. Preliminary results show that these links are in alignment with the theory and expectations. However, the authors expect

to get a clearer picture on the relations between BGI and other indicators of banks' performance once a longer time series of the index is available, since the first measurement was made in 2010.

III. WORKING PAPERS IN PROGRESS

"VAR ANALYSIS OF MACROECONOMIC EFFECTS ON BANK LOAN QUALITY IN ALBANIA", BY ELONA DUSHKU AND ILIR VIKA, RESEARCH DEPARTMENT

This paper aims to create a useful model in order to forecast the level of non-performing loans; to analyse macroeconomic factors influencing the credit portfolio in Albania through the impulse response analysis; and to run stress tests based on the impact of some main macroeconomic shocks. The effect of macroeconomic shocks is estimated by a Vector Autoregressive Model, which includes some of the main macroeconomic and financial variables. A main advantage of this model is that it captures the main linkages between micro- and macroeconomic variables, ensuring thus an ideal structure aiming at financial stability. The authors have also tested for the existence of any feedback effect resulting from the financial sector to the real one. Preliminary findings show that there are first-round effects from the real sector to the financial one. Also, so far, the study has shown that the main factors that contribute to the performance of non-performing loans to total loans are interest rates and the real effective exchange rate.

"EUROIZATION – THE CASE OF ALBANIA", BY ORIELA KODRA,

RESEARCH DEPARTMENT

Euroization is a process that characterizes many economies of developing countries. Governments in these countries often borrow in foreign currency, individuals can keep their deposits in foreign currency, and businesses and households can obtain credit in foreign currency. This paper aims at identifying the consequences of the level of Euroization in Albania, and its impact on financial stability and monetary policy.

"PAYMENT INSTRUMENTS AS PERCEIVED BY BUSINESSES AND CONSUMERS", BY ALBAN PLLAHA AND KLITI CECA, RESEARCH DEPARTMENT

This study aims to assess the situation of payment instruments in Albania, as perceived by businesses and consumers. Through the questionnaires, the study attempts to identify the characteristics (safe/non-safe, costly/non-costly, etc.) that determine consumers' choice of payment instruments. The identification of these characteristics/features may be used to stimulate the use of electronic payment instruments, reducing thus cash in circulation.

IV. ARTICLES

In the following, you can find a brief preview of some papers published by other central banks, in order to give a better view on scientific research materials published during July-December 2011.

"MACROECONOMIC PROPAGATION UNDER DIFFERENT REGULATORY REGIMES: EVIDENCE FROM AN ESTIMATED DSGE MODEL FOR THE EURO AREA", BY MATHIEU DARRACQ PARIES, CHRISTOFFER KOK SORENSEN AND DIEGO RODRIGUEZ-PALENZUELA, EUROPEAN CENTRAL BANK

This paper analyses the role of credit frictions in business-cycle fluctuations and in the transmission of monetary policy. The authors estimate a closed-economy dynamic stochastic general equilibrium (DSGE) model for the Euro Area with financially constrained households and firms and embedding an oligopolistic banking sector facing capital constraints. Using this setup, the authors examine the monetary policy implications of the various financial frictions to credit supply and demand and furthermore examine the real economic implications of increasing capital requirements and of introducing risk-sensitive capital requirements. Moreover, the potential for introducing counter-cyclical bank capital rules and aligning macro-prudential tools with standard monetary policy tools is examined. In particular, the model results highlight the importance of operating with a protracted implementation schedule of new regulatory requirements for smoothing out the transitional costs to the economy arising from a more capital-constrained banking sector.

"A PIGOVIAN APPROACH TO LIQUIDITY REGULATION", BY ENRICO PEROTTI[1] AND JAVIER SUAREZ[2]

This paper discusses liquidity regulation when short-term funding enables credit growth but generates negative systemic risk externalities. It focuses on the relative merit of price versus quantity rules, showing how they target different incentives for risk creation. When banks differ in credit opportunities, a Pigovian tax on short-term funding is efficient in containing risk and preserving credit quality, while quantity-based funding ratios are distortionary. Liquidity buffers are either fully ineffective or similar to a Pigovian tax with deadweight costs. Critically, they may be at least binding when excess credit and liquidity risk are best controlled with net funding ratios. Taxes on short-term funding emerge again as efficient when capital or liquidity ratios keep risk shifting incentive under control. In general, an optimal policy should involve both types of tools.

"THE FINANCIAL MARKET IMPACT OF QUANTITATIVE EASING IN THE UNITED KINGDOM", BY MICHAEL A. S. JOYCE, ANA LASAOSA, IBRAHIM STEVENS, AND MATHEW TONG, BANK OF ENGLAND

This paper investigates the impact of the Bank of England's quantitative easing policy on UK asset prices. Based on

analysis of the reaction of financial market prices and model-based estimates, the authors find that asset purchases financed by the issuance of central bank reserves may have depressed medium to long-term government bond yields by about 100 basis points, with the largest part of the impact coming through a portfolio balance effect. The wider impact on other asset prices is more difficult to disentangle from other influences; the initial impact is muted, but the overall effects were potentially larger, though subject to considerable uncertainty.

V. OTHER ACTIVITIES

THE FIFTH REGIONAL WORKSHOP: "ECONOMIC RESEARCH IN SOUTH-EASTERN EUROPE", NOVEMBER 2011

Research Department of the Bank of Albania organized on 10-11 November 2011 the fifth regional workshop "Economic Research in South-Eastern Europe". There were 25 participants (presenters and discussants) from Bank of Albania and other central banks of the region (European Central Bank, Bank of Italy, Bank of Austria, Central Bank of the Republic of Macedonia and Hungarian National Bank), who attended the workshop. Following the success of previous workshops, the aim of this workshop was to further improve cooperation and open dialogue among research economists, and also to further widen the knowledge of regional central banks over some characteristics and specific developments of the participant countries.

Some of the research studies dealt with issues related to public finances of the region, economic uncertainties and the way banks should optimally react to productivity, trade, financial stability, and price stability. These topics were of high interest against a background of the difficult situation most of the Euro Area countries are going through, caused by sovereign debt crisis problems, and negative potential effects they might pose on the economies of our region.

A listing of the papers presented in this workshop is as follows:

1. "Macroprudential Regulation of Credit Booms and Busts: The Experience of the National Bank of the Republic of Macedonia", by Frosina Celeska, Viktorija Gligorova, Aneta Krstevska, National Bank of the Republic of Macedonia;
2. "A System-Wide Financial Stress Indicator for the Hungarian Financial System", by Dániel Holló, Central Bank of Hungary;
3. "The Impact of the Global Crisis on South-Eastern Europe", by Andrea Colabella, Francesca Spadafora, Emidio Cocozza, Bank of Italy;
4. "Non-Core Liabilities as an Indicator of Systemic Risk", by Kurmaş Akdoğan, Burcu Deniz Yıldırım, Central Bank of the Republic of Turkey;
5. "Wage Setting Behaviour of Bulgarian Firms: Evidence from Survey Data", by Ivan Lozev, Zornitsa Vladova, Desislava Paskaleva, Bulgarian National Bank;

6. "Determinants of Foreign Currency Loans in CESEE Countries: A Meta-Analysis", by Jesús Crespo Cuaresma, Jarko Fidrmuc, Mariya Hake, Oesterreichische National Bank;

7. "Monetary Policy Decision-Making by Committees: Normal Times versus Crisis Times", by Alexander Jung, Francesco Mongelli, European Central Bank;

8. "The Impact of Trade on Growth: A Gravity Model-Based Instrument Approach on Post-Communist Europe", by Endrit Yzeiraj, Bank of Albania;

9. "Fiscal Policy and Economic Growth: The Case of Albania", by Gerti Shijaku and Arlind Gjokuta, Bank of Albania;

10. "Sustainability of Fiscal Policy: The Case of Albania", by Gerti Shijaku, Bank of Albania;

11. "Performance Evaluation: Uncertainties in Forecasting Inflation", by Evelina Çeliku and Gent Hashorva, Bank of Albania;

12. "House Prices and Mortgage Loan in Albania", by Erjona Suljoti and Gent Hashorva, Bank of Albania;

13. "Is Financial Intermediation Efficient in Albania? Evidence from Productive Capital Stock", by Jonel Kristo, Bank of Albania;

14. "Equilibrium Exchange Rate in a Developing Economy", by Bledar Hoda, Bank of Albania;

15. "Fiscal Positions and Government Bond Yields in Albania", by Esida Abazaj, Bank of Albania;

16. "Empirical Investigation of Forecast Uncertainty with Monte Carlo Simulation", by Altin Tanku, Elona Dushku and Kliti Ceca, Bank of Albania;

17. "FTAs and Trade Integration among SEE countries; Gravity Model Estimations", by Alban Pllaha, Bank of Albania;

18. "How is Financial Performance of Banks in Albania Influenced by a Sound Corporate Governance?", by Oriela Kodra and Irini Kalluci, Bank of Albania;

19. "Credit Behaviour in Albania: A Sign of Convergence or Deviation from its Long-Term Trend?", by Irini Kalluci, Bank of Albania;

20. "VAR Analysis of Macroeconomic Effects on Bank Loan Quality in Albania", by Elona Dushku and Ilir Vika, Bank of Albania;

21. "A Financial Systemic Stress Index for Albania", by Vasilika Kota and Arisa Saqe, Bank of Albania;

Each paper was followed by the discussion of colleagues or foreign guests, who presented the main findings of the paper, its contribution, while providing comments and suggestions for further research or improvement.

THE GOVERNOR'S AWARD FOR THE BEST DIPLOMA THESIS FOR THE YEAR 2011

For the fifth consecutive year, the Bank of Albania organized the Governor's Award for the Best Diploma Thesis for the year 2011. This award encourages the Albanian students, graduated either in Albania or abroad, to participate with their research work concerning fields like: monetary economics, financial stability, the economic integration of the Balkan countries towards Europe, Bank of Albania's activity, the Albanian banking system, and the Albanian economy in

general. This is a good tradition that helps foster research culture and create a supportive structure with newcomers, who have the right knowledge and will to study.

The first prize went to Ms. Borana Angjeli, student at University of Marin Barleti, for the Diploma Thesis "Pension Schemes". This thesis aims to identify the shortcomings of the pension schemes in Albania and to provide several recommendations on how to change such scheme in the future in line with European principles.

The second prize went to Ms. Ledia Sulejmani, student at University of Tirana, for the Diploma Thesis "Economic Developments in Western Balkans and Challenges for the Future". This paper describes the changes and special characteristics of Western Balkan countries in terms of economic indicators, addressing the concept of a common region and challenges lying ahead in the future.

The third prize went to Mr. Ardit Azizaj, post-graduate student at University of New York in Prague, for the Master Thesis "What can Albania do in the Future Regarding Global Division of Labour". This study focuses on the disability of the country to transform successfully its economy, from a poor and centralized economy to a developed economy.

TECHNICAL SEMINARS

Research Department, within the framework of the Medium-Term Development Strategy of Research, organizes bimonthly the series of technical seminars. This seminar aims to introduce

the latest scientific novelties in the field of economics, new methods of solving problems, the development of original mathematical models of processes and phenomena and the results obtained from using them, etc. During the period between July and December 2011, the presentations covered the following topics:

i.   "Panel Data, Main Estimators, and Application", by Endrit Yzeiraj, Research Department

This seminar aimed to introduce panel estimation methods and to introduce them in STATA software, mostly focusing on the GMM (Generalized Method of Moments) technique. Panel data have been widely used recently to estimate the dynamic effects of econometric models, by ensuring also more detailed and comprehensive information than cross-section data. When compared to aggregated data, the main advantage of panel data is that they enable users to better study the microeconomics of data and to investigate the heterogeneity among different types of individuals, firms, and other economic agents. Among the main disadvantages of using panel data, we can highlight the fact that the collection of such data costs considerably in terms of time and monetary value. Also, the estimation of dynamic effects is not pretty clear. However, these methods are widely used in estimating the consumption behaviour of individuals, estimating empirical models regarding economic growth, and studying the dynamics of models dealing with costs of production factors.

ii.   "Estimation of Probability Densities", by Kliti Ceca, Research Department

This seminar aimed to introduce several methodologies designed to estimate probability densities. Given that the recognition of random variables, one- or more-dimensional is defined as the recognition of their values and their densities, then it becomes crucial to further better techniques aiming at estimating probability density distributions. This seminar also introduced several mathematical techniques, coming from the generalization of naive estimators, such as: kernel estimation, nearest-neighbour estimation, variable kernel estimation, and generalized weight estimators, etc. Then, the seminar continued with the discussion about the possibilities of generating values of estimated distributions with the above-mentioned methodologies, and other forecasting methods. An example was provided, which consisted in estimations related to exchange rate time series. Also, the seminar estimated the possibility of applying forecasts based on this method for many other series. Lastly, it was worth discussing in the seminar the possibility of applying these methods in the multi-dimensional case, which might be a possibility to be continuously applied.

iii. "Combining the Forecasts in the Money Aggregate and Exchange Rate Models: Can they Beat the Simple Average", by Ilir Vika and Gerti Shijaku, Research Department

Combining forecasts is a useful approach to improve the forecasting accuracy and to generate a single forecast from several individual forecast models. For this reason, this technical seminar focused on familiarizing with several statistical methods designed to combine forecasts, such as: simple average, trimming, and shrinkage (Bayesian). The simple average method gives equal weight to individual forecast models and, in contrast to trimming and shrinkage (Bayesian) methods, it is not based on the historical performance of each model. The trimming method calculates the weight of each model based on the historical performance (bias, variance, covariance, and sum of squared errors) of each forecasting model, whilst the one with the lowest and highest performance are eliminated from the final calculation. Compared to the trimming method, the shrinkage (Bayesian) method is not exclusive and calculates weights as the average of OLS recursive coefficient estimations of parameters weighted on equal weights. Further, the seminar analyzed the performance estimation of each method for monetary aggregates and exchange rate, following the "out-of-sample" approach. Results suggest that shrinkage (Bayesian) improves the forecast quality in the case of the exchange rate, while in the case of monetary aggregates forecasts, the simple average method generates the best forecast compared to other methods.

LINKS:

RESEARCH AT OTHER CENTRAL BANKS

Banca d'Italia (http://www.bancaditalia.it/studiricerche)

Banco de Espana (http://www.bde.es/informes/be/docs/docse.htm)

Bank of England (http://www.bankofengland.co.uk/publications/workingpapers/index.htm)

Bank of Finland (http://www.bof.fi/en/julkaisut/bofit_julkaisut/index.htm)

Bank of Greece (http://eng.bankofgreece.gr/en/publications/research.asp)

Czech National Bank (http://www.cnb.cz/en/research/)

Deutsche Bundesbank (http://www.bundesbank.de/vfz/vfz_diskussionspapiere_2009.en.php)

European Central Bank (http://www.ecb.int/home/html/researcher.en.html)

Oesterreichische Nationalbank (http://www.oenb.at/en/presse_pub/research/research.jsp)

Federal Reserve (http://www.federalreserve.gov/econresdata/default.htm)

OTHER

BIS Central Bank Research Hub (http://www.bis.org/cbhub/index.htm)

International Journal of Central Banking (http://www.ijcb.org/)

National Bureau of Economic Research (http://www.nber.org/)

International Monetary Fund (http://www.imf.org/external/pubind.htm)