RESEARCH NEWSLETTER

Contents

I. FRIDAY SEMINAR

In the period January – June 2017, the studies presented in the Friday Seminar series consisted in the following:

"Household spending out of a tax rebate: the Italian 80 euro bonus" by Andrea Neri, Statistical Analysis Directorate, Concetta Rondinelli, Economic Outlook and Monetary Policy Directorate, Filippo Scoccianti, Structural and Economic Directorate, Bank of Italy.

The paper aimed to measure the increase in household's consumption directly caused by the income tax credit introduced in 2014 in Italy. The results show that households increased their spending thanks to the credit by about 50-60% of their bonus. The results are confirmed by a structural model of household consumption that builds on the work by Kaplan and Violante.

"Evaluation of forecasting performance: of the GAP model", by Meri Papavangjeli and Arlind Rama, Research Department, BoA.

This paper aims at evaluating the forecasting performance of the GAP Model, a semi-structural economic model in use at the Bank of Albania for policy projection purposes since 2011. A VAR is constructed to describe the economic relations represented in the GAP Model, as a commonly used way to obtain economic projections based solely on the information that the data series provide. Comparing forecasting performance of the two models on a common statistical diagnostic metrics contributes to a broader understanding of the forecasting abilities of the GAP Model and draw discussion issues for potential improvements of the model that would potentially lead to an improved representation of the Albanian economy and increased accuracy in its' forecasting abilities of the GAP Model.

"Sovereign debt exposure and the bank lending channel: impact on credit supply and the real economy" by Margherita Bottero, advisor at the Economics and Statistics Department, Bank of Italy, Simone Lenzu, University of Chicago, Chicago, IL. USA, Filippo Mezzanotti, Kellogg School of Management, Northwestern University, Evanston, IL. USA.

In the context of the European sovereign crisis, the paper examines the transmission of a bank balance sheet shock to credit and its effects on corporate policies. The shock to the banks' sovereign portfolio caused by the Greek bailout (2010) was passed on to firms through a contraction in credit. The paper concludes that the interaction of banks' and firms' balance sheets is crucial

for understanding the transmission of credit shocks to the economy.

"Assessing financial stability risks arising from the real estate market in Italy" by Wanda Cornacchia, Advisor at Financial Stability Analysis and Coordination Division, Financial Stability Directorate, Bank of Italy.

The paper provides an analytical framework for assessing financial stability risks arising from the real estate sector in Italy. This framework consists of two blocks: three complementary early warning models (EWMs) and a broad set of indicators related to the real estate market, to credit and to households. The paper contributes to the recent literature on EWMs by implementing a Bayesian Model Averaging (BMA) based on linear regression models. Both models exhibit good predictive abilities.

"Assessing potential growth in developing countries post global financial crises" by Daniela Marconi, Bank of Italy.

We examine the growth performance of six emerging economies (Brazil, China, India, Indonesia, Russia and Turkey) in the last two decades and examine whether domestic structural constraints are affecting their present and future growth potential. We find that the ongoing slowdown in EMEs is largely structural, but there is still ample room for catching up in terms of output composition, reallocation of labor across sectors and within-sector productivity improvements. In the longer run other structural factors will weigh on potential growth, particularly the evolution of the size and quality of the labor force.

II. RECENTLY CONCLUDED RESEARCH PAPERS

Has the crisis changed the monetary transmission mechanism in Albania? An application of kernel density estimation technique. By Altin Tanku and Kliti Ceca, Research Department, BoA.

The post crisis period in Albanian economy has been distinguished by low inflation and slow economic growth. In response to negative inflation and output gaps Bank of Albania has persistently reduced its policy rate to support economic activity and bring inflation to its objective. Despite credit and aggregate demand growth are lagging. The transmission mechanism seems to have lost some of its efficiency. This paper investigates the hypothesis that the relationship among interest rate, money and inflation has changed in the post crisis period (the case of Albania). Density estimation techniques based on Tanku and Ceca (2013), is used as an alternative method of empiric investigation within the probability framework. Two dimensional densities of inflation, money and interest rates are estimated for two different periods. The PDF and CDF of the estimated densities are reported graphically and are used to test whether pre-crisis and post-crisis data sets arise from the same distribution. The comparison of probability spaces is based on the two-dimensional Kolmogorov Smirnov (K-S) test. We conclude that the relationship between interest rate and inflation, and interest rate and money has changed in the post-crisis period. These findings have important implications for the conduct of monetary policy in Albania.

"Banking stability and competition – evidence from the Albanian banking system", by Gerti Shijaku, Research Department, BoA.

The key purpose of the regulations on banking prudence to reduce the stimulus of banking risk often coincides with the restriction of competition between banks, although many theoretical and empirical studies actually argue that increased competition leads to lower levels of bank risk. This study analyses the dynamic relation between competition and bank stability in Albania during 2008 – 2015 using the General Moments of Movements (Arrelano-Bond) estimator approach with quarterly macroeconomic and bank level data. Results strongly support the "competition – stability" view after the global financial crises - that higher degree of competition boosts further bank stability conditions. Results further indicate that greater concentration has also a negative impact on bank stability. Small banks are found to be more sensitive to competition patterns than large banks. Finally, we do not find a non-linear relationship between competition and stability.

III. RESEARCH PAPERS IN PROGRESS

"The role of corruption and crime on the performance of the enterprises in CEE", Margerita Topalli, Research Department, BoA.

In this article is analyzed the impact of corruption and crime on the enterprises' performance during economic transition in Central and Eastern Europe and the role of privatization. We use firm-level panel data collected by the BEEPS for 27transition countries over 2002, 2005, 2009, and 2011. In addition to firm characteristics, BEEPS also collects some valuable survey information on different forms of corruption and crime. As expected, our estimation reveals that private foreign-owned firms and EU firms are more likely to have a positive impact on firm performance, but the contrary happens with firms that were privatized from state-owned firms. The results of this research point out the negative impact of crime, but a positive relationship between corruption and firms' performance.

Bank Prudential Behaviour and Stability after Global Financial Crises: How far do They Go?, by Gerti Shijaku, Research Department, BoA.

This paper analyses how bank prudential behaviour affects bank stability, focusing only in the period after the global financial crisis. For this reason, we construct a new composite proxy as a measure of bank prudential behaviour. The study is based on the General Method of Moments with panel data for 16 banks operating in the Albanian financial sector during 2008-2015. The empirical estimation includes also two subsamples of small and large banks. Finally, results would be complemented with robustness checks that include methodological changes and alternative proxy variables.

"Marginal trend for consumption in Albania, based on Albanian households' data" By Ola Cami, Research Department, BoA.

This paper aims to measure the marginal trend for consumption in Albania by using panel data measured at household level. Specifically, the paper explores the relationship between income and

consumption, taking into account the heterogeneity and characteristics of households. The study also seeks to understand if the marginal consumption trend takes different values for different percentiles of income. The purpose of this paper is to assist monetary policy in maximizing the effectiveness of its transmission mechanisms.

"Price and wage flexibility in Albania", by Meri Papavangjeli, Research Department, BoA.

This study aims at assessing the price and wage flexibility in Albania. It analysis at aggregate level the macroeconomic relationships among inflation, unemployment, wages, and economic output. This research material is undertaken within the framework of the project for building a DSGE model for the Albanian economy. Studying the degree of wage and price flexibility in Albania is important for determining the model structure if it will be according to a standard New Keynesian model or some other model form.

A Bayesian VAR Model for Albanian Economy, by Ilir Vika, Meri Papavangjeli, Arlind Rama, Research Department, BoA.

The purpose of this study is to generate a relatively simple model for performing forecasts of main macroeconomic indicators aligned with conditioned scenarios for foreign variables (exogenous). Results of this model might be used as inputs in other models used at the Bank of Albania, as satellite models as well as a sort of benchmark for the consistency and performance of Bank's macro-models. The new Bayesian VAR model aims to be in line with MEAM and GAP models; the methodology of its' evaluation allows easiness in use and makes its' maintenance less costly. This is why in authors' judgment this model would serve as a comparative referring point with projections and analyses generated from other more sophisticated models used in the Bank.

Price of Albanian exports and their "pricing to market" effects, by Ilir Vika, Arlind Rama, Research Department, BoA.

This discussion material of the methodological character and in function of improving economic models at the Bank of Albania aims to serve in deeper understanding the transmission mechanism and channels related to commercial flows. Ability of Albanian exporters in setting own products prices is an important thematic for specifying the exports equation in the MEAM model. The research work in process is focused in understanding if Albanian exporters have the power to negotiate own products prices or take them as given in international market. Clarification on this issue will help in well-specifying exports in all other macro-models of the Bank.

"Assessment of the method of financing micro and agricultural enterprises" by Kliti Ceca and Elona Dushku, Research Department, BoA.

The paper aims to present the results of the survey conducted by the Bank of Albania in 2017 H1 on micro-enterprises and agricultural enterprises. Namely, 1000 agricultural enterprises and 3200 micro enterprises were surveyed regarding their financial performance, sources of financing, loan structure, etc. Survey's data will be used to assess the debt level of these enterprises, comparing it to large and medium-sized enterprises.

IV. ARTICLES

"Sources of Labor productivity in Albania: Evidence from Enterprises' Data of 2006-2015" by Elona Dushku and Ola Çami, Research Department, BoA.

This article analyzes the main sources of labor productivity in Albania based on the decomposition of the total value by the: (i) within-sector effect, (ii) structural effect and (iii) interactive effect. Results based on the shift-share analysis implemented on the data of the Enterprise Structural Survey in Albania during the period 2006-2015 show that the main source of total labor productivity increase is the growth trend within the sectors. Meanwhile, the reallocation of the labor factor and the interactive and structural effects have played a secondary role in increasing the total labor productivity of enterprises in Albania.

"Consumption inequality: an analysis based on the decomposition of the Gini coefficient of expenditures in Albania" by Ola Çami, Research Department, BoA.

This article analyses the inequality of consumer expenditures in Albania through the calculation and decomposition of the Gini coefficient for expenditures. The data is derived from the 2012 LSMS survey which provides data on household spending for different categories of products and services. The results suggest an inequality of 0.371 for the total consumption versus the inequality of 0.403 for income. About 78% of all household expenditures consist of spending on food, fuel, energy, water and maintenance. Thus spending on other expenditure components are considered luxury goods, and consequently the decomposition of the Gini coefficient shows a relatively high inequality of these components.

The currency dimension of the bank lending channel in international monetary transmision, Elod Takats, Judit Temesvary, Federal Reserve.

We investigate how the use of a currency transmits monetary policy shocks in the global banking system. We use newly available unique data on the bilateral cross-border lending flows of 27 BIS-reporting lending banking systems to over 50 borrowing countries, broken down by currency denomination (USD, EUR and JPY). We have three main findings. First, monetary shocks in a currency significantly affect cross-border lending flows in that currency, even when neither the lending banking system nor the borrowing country uses that currency as their own. Second, this transmission works mainly through lending to non-banks. Third, this currency dimension of the bank lending channel works similarly across the three currencies suggesting that the cross-border bank lending channel of liquidity shock transmission may not be unique to lending in USD.

https://www.federalreserve.gov/econresdata/feds/2017/files/2017001pap.pdf

Bank Fees, Aftermarkets, and Consumer Behavior, Robert M. Adams, Federal Reserve.

Fees for banking services have been a policy concern for over 20 years and the subject of several government agencies studies, which focused on the magnitude, incidence, or disclosure of such fees. Using a sample of single market banks, I study the

relationship between market level consumer characteristics and bank fee revenue, fees, and bank return on assets (ROA) to infer consumer and firm behavior. Of particular interest, I use county-level IRS tax records as a measure of the consumer income distribution, but my analysis also includes measures of age and education distributions. I find very little evidence that banks are systematically charging higher aftermarket fees in counties with greater proportions of younger, less educated, or poorer households. Standard measures of competition such as the Herfindahl-Hirschmann Index of deposit concentration are correlated with fees for base checking accounts, but not correlated with aftermarket product fees. Finally, st ate-wide restrictions on payday lending are correlated with higher bank fees, but not with increased bank revenue or ROA.
https://www.federalreserve.gov/econres/feds/files/2017054pap.pdf

Banks credit and productivity growth, Fadi Hassan, Filippo di Mauro, Gianmarco I.P. Ottaviano, ECB.

Financial institutions are key to allocate capital to its most productive uses. In order to examine the relationship between productivity and bank credit in the context of different financial market set-ups, we introduce a model of overlapping generations of entrepreneurs under complete and incomplete credit markets. Then, we exploit firm-level data for France, Germany and Italy to explore the relation between bank credit and productivity following the main derivations of the model. We estimate an extended set of elasticities of bank credit with respect to a series of productivity measures of firms. We focus not only on the elasticity between bank credit and productivity during the same year, but also on the elasticity between credit and future realized productivity. Our estimates show a clear Eurozone core-periphery divide, the elasticities between credit and productivity estimated in France and Germany are consistent with complete markets, whereas in Italy they are consistent with incomplete markets. The implication is that in Italy firms turn to be constrained in their long-term investments and bank credit is allocated less efficiently than in France and Germany. Hence capital misallocation by banks can be a key driver of the long-standing slow productivity growth that characterizes Italy and other periphery countries.
http://www.ecb.europa.eu/pub/pdf/scpwps/ecbwp2008.en.pdf

Is monetary policy less effective when interest rates are persistently low?, Claudio Borio, Boris Hofmann, BIS.

Is monetary policy less effective in boosting aggregate demand and output during periods of persistently low interest rates? This paper reviews the reasons why this might be the case and the corresponding empirical evidence. Transmission could be weaker for two main reasons: (i) headwinds, which would typically arise in the wake of balance sheet recessions, when interest rates are low; and (ii) inherent non-linearities, which would kick in when interest rates are persistently low and would dampen their impact on spending. Our review of the evidence suggests that headwinds during the recovery from balance-sheet recessions tend to reduce monetary policy effectiveness. At the same time, there is also evidence of inherent nonlinearities. That said, disentangling the two types of effect is very hard, not least given the limited extant work on this issue. In addition, there appears to be an independent role for nominal rates in the transmission process, regardless of the level of real (inflation-adjusted) rates.
http://www.bis.org/publ/work628.htm

V. OTHER ACTIVITIES

TECHNICAL SEMINARS

"Has the crisis changed the monetary transmission mechanism in Albania? An application of kernel density estimation technique" by Altin Tanku, director of the Research Department, Kliti Ceca, Research Department, Bank of Albania.

The paper investigates the hypothesis that the relationship among interest rate, money and inflation has changed in the post crisis period (the case of Albania). Density estimation techniques based on Tanku and Ceca (2013), is used as an alternative method of empiric investigation within the probability framework. The paper concludes that the relationship between interest rate and inflation, and interest rate and money has changed in the post-crisis period. These findings have important implications for the conduct of monetary policy in Albania.

"The impact of the economic crisis on the quality of self-employment in the U.S" by Ola Çami, Research Department, Bank of Albania.

The paper uses the NLSY79 and the NLSY97 panel data in the 2004-2010 annual range to analyze the quality of self-employment in the post-2007 economic crisis. The official data reports recognize an increase in the unemployment level of the population, yet they do not encounter significant increase in the numbers of self-employment and its subgroups. The methodology approach finds inspiration from Rubinstein and Levine (2013), which uses a probit model on self-employment (incorporated=1 and unincorporated=0) to distinguish between "entrepreneurs" and other business owners.

VI. LINKS

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

Bank of Canada
http://www.bankofcanada.ca/research/

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)

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

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)

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

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