RESEARCH NEWSLETTER AT THE BANK OF ALBANIA

Contents

The 29th issue of the publication "Research Newsletter at the Bank of Albania" reflects some of the recently conducted research papers, research work in progress, , as well as other publications and the main research activities carried out by Bank of Albania's economists over the course of the second half of 2022.

I. RESEARCH PAPERS

1.1. RECENTLY CONCLUDED RESEARCH PAPERS

Scientific research activities at the Bank of Albania, during this period, were oriented towards empirical research and analyses focusing on topics related to climate changes and green finance, monetary policy, financial stability, households' behaviour, big data methodologies and artificial intelligence, etc. A short summary is presented below.

"Medium-term strategy on climate change risks and on the role of the Bank of Albania (2023-2025)", *by the interdepartmental group created at Bank of Albania.*

Bank of Albania in cooperation with the World Bank, (FinsSAC) devised, in accordance with international best practices, the strategy for green finance and the risk it carries for Bank of Albania's main objective and for other objectives. The purpose of this strategy is to fully understand and assess the economic and financial risks and consequences of climate change over a medium-term period, with the vision of having a stable, resilient and environmentally friendly banking system. The strategy, after being approved by Bank of Albania's Supervisory Council, will be published on the official website, presenting the action plan of this strategy and the role of the Bank of Albania towards sustainability in finance for a greener and more inclusive economy.

"A synthetic metric approach to assess climate change related risk developments in the case of Western Balkan Countries.", *by Gerti SHIJAKU (Bank of Albania, Research Department), and Pierre MONNIN (Economist, Council on Economic Policies – CEP).*

This paper introduces an adequate, continuous and new alternative data-driven synthetic metric approach to assess climate change-related risk developments in the case of Western Balkan countries. The

methodology relies upon the need to analyse such risks from the perspective to coordinate physical and transition climate change risks. For this reason, it includes a set of annual data containing information from 48 pre-selected existing indicators. These indicators are independently related to the five core types of dimensions referring to climate risks, namely: acute, chronic, adaptive capacity, exposure and mitigation risks. It calculates the weights of each normalized value using the entropy method, transformed into a single index with a range from 0 to 100. The lower the value of this synthetic indicator, the better will be the performance in climate change risk developments, and vice versa. The advantage of this approach is threefold. First, it makes up for the gaps and improves the technique aspects of existing indices. Second, it helps authorities to better monitor climate risk on continues basis and make better national development decisions. Finally, it helps to strengthen the public and academic understanding of climate change risk.

"A micro analysis of household saving behaviour in Albania", by Ola ÇAMI, Research Department (BoA).

The behaviour of saving is of interest for policymakers: in macroeconomic terms, savings represent an important source for financing investments, growth and smooth monetary transmission. Therefore, it is crucial for policymakers to understand saving dynamics at the micro level. Using the Albanian Household Wealth Survey - AHWS, this paper focuses on exploring three dimensions of the saving behaviour of households in Albania: (1) Who saves?- what determines the decision to save or not to save; (2) How they save?- saving instruments of choice ; (3) Why they save?-

saving motives. The results suggest that education and financial literacy play a crucial role in the decision to save and on portfolio choices.

"Using machine learning tools to study the unemployment and output relationship in Albania", by Blerina VIKA, Department of Statistics and Applied Informatics, Faculty of Economy (University of Tirana), Ilir VIKA, Research Department (BoA), and Kozeta SEVRANI, Department of Statistics and Applied Informatics, Faculty of Economy (University of Tirana).

The field of economics is nowadays increasingly employing artificial intelligence to complement and further improve the tools for analysing and making future decisions. One of the most common machine-learning techniques that are used in forecasting economic indicators is the recurrent neural network method, which has often proven to be useful in capturing non-linearities in data series. This article applies the long short-term memory (LSTM) technique to test for the Okun relationship in Albania. Apart from examining movements in unemployment as predicted by developments in aggregate demand, we test whether a disaggregated version of the Okun's law – by decomposing aggregate demand into various expenditure components of GDP – provides better predictions for changes in unemployment. In-sample estimations suggest that the Okun's law may hold in Albania, but the response of unemployment to output performance is found to vary over different time periods. Non-linear model forecast evaluations show that unemployment rate movements in the second half of 2010s could be more related to private investment and government spending, while private consumption and external trade developments seem to predict it less.

1.2. RESEARCH PAPERS IN PROGRESS

"Is there a long-run cointegration in credit demand and supply of firms (and households) in the case of Albania? A Vector Error Correction mechanism approach analysis", by Gerti SHIJAKU, Research Department (BoA).

This paper presents an empirical analysis of bank credit demand and credit supply in the case of the Albanian small open economy, focusing particularly on the period after the global financial crisis. Using macroeconomic, banking sector and bank lending survey data, we disentangle credit demand and credit supply for firms (and households) by estimating a dynamic model of the credit market in Albania according to a market disequilibrium approach, upon which we analyse the existence of a long-run cointegration relationship. The set of variables used to specify each model, including economic confidence and purchase power parity, liquidity conditions, opportunity costs and spreads, as well as those related to bank competition and prudential behaviour, and exchange rate movements, are all found to be integrated of order one I(I). Cointegration was performed under Johansen test approach and a standard Vector Error Correction model approach was applied according to its result. Our model results point on the association between effects of variable on another on both long and short runs, and an error-correction term derived from the known (estimated) long-run cointegrating relationship exists, in either case.

"Does money matter for predicting consumer prices in Albania?", by Blerina VIKA, Department of Statistics and Applied Informatics, Faculty of Economy (University of Tirana), and Ilir VIKA, Research Department (BoA).

Economic developments in recent years have instigated the Bank of Albania to broaden the scope of attention in its monetary policy medium-term strategy reports since 2019, by stimulating empirical studies to re-assess the information content of money in predicting inflation in Albania. As movements in other macroeconomic indicators may affect the link between money and prices in the near to medium term, we use nonparametric statistical methods, such as recurrent neural networks, to account for both nonlinearity and a time-varying relationship. Thus, our approach can also contribute to literature on usefulness of computational intelligence and related nonparametric statistical methods as analytical tools to support economic policy decisions.

The forecast ability is evaluated in a pseudo out-of-sample exercise for horizons varying from three months to three years ahead. The preliminary results on bivariate modelling suggest us that the current neglect of money growth in formulating monetary policy may be generally consistent with the data. Nevertheless, comparing the univariate inflation-only model with a bivariate model may bias the impact of money, for instance, because monetary developments could be reflecting other economic developments. Indeed, some preliminary exercises with trivariate modelling (consisting of inflation, GDP and money growth) indicate that monetary aggregates could have relevant information for inflation, especially at horizons of over one year. Also, similar trials with expanded number of inputs in the LSTM model beyond that suggested by Bayesian info criteria show signs of future success.

"Financial conditions and monetary transmission in Albania", *by Meri PAPAVANGJELI, Research Department (BoA).*

In the light of the current global developments, where economies worldwide are facing the challenge of rising inflation in the context of tightening global financial conditions and major macro-financial vulnerabilities, monitoring of financing conditions takes a greater importance in assessing the monetary policy transmission process and determining the appropriate monetary policy stance. This article contributes to the literature in several ways: first, it introduces a financial conditions index (FCI) for Albania in line with IMF's approach (that captures structural economic changes and can also be used for multi-country analysis) and in addition, it examines the role of vulnerabilities in the financial sector in defining the transmission of financial conditions and monetary policy shocks to the real economy, by capturing also nonlinearities in these relations. Higher financial imbalances make the Albanian economy more vulnerable to shocks. The transmission of financial and monetary policy shocks to the real economy depend nonlinearly on credit to GDP gap as a measure for financial vulnerabilities. During periods of low vulnerabilities, a monetary tightening lead to a decrease in economic output and prices, and a credit contraction. In the contrary, when vulnerabilities are high, monetary policy is less effective. These findings highlight the complementarity of monetary and macroprudential policies and the crucial role of the latter in coping with high financial vulnerabilities, when monetary policy is less effective.

***"Households financial fragility in Western Balkan countries beforehand the Covid-19"**, by Elona DUSHKU, Research Department (BoA).*

The global financial crisis of 2008 and the pandemic crisis caused by Covid-19 brought once again on attention the financial fragility of households and their ability to withstand shocks, such as a sudden drop in income or an unexpected expenditure. This paper uses data from the third wave of Life in Transition Survey, to analyse the financial fragility behaviour of households in the Western Balkans, during 2016. We measure financial fragility, as individual ability to cope with unexpected expenditure and we analyse how financial fragility is associated with socioeconomic factors and subjective perceptions based on the economic situation, financial situation and job situation of households. Preliminary results indicate that the probability of households being financially fragile in the Western Balkans is negatively correlated with higher income and education, bank access and owning real assets. Also, positive perceptions on household financial situation and country economic situation are negatively correlated with the probability of households being financially fragile.

1.3. RESEARCH ARTICLES

"An Analysis of the performance of the Albanian banking sector using a ROE breakdown method (2010 - 2020)", *by Fiqiri BAHOLLI, Research Department (BoA).*

In the literature, bank performance is defined as its capacity to generate profit. Moreover, banks' profit is a first defence line in case of unforeseen losses. At the same time, like any other business, profitability is the ultimate goal that satisfies investors. This paper aims

to study and analyse the performance of the Albanian banking sector by decomposing the measure of Return on Equity (ROE) during the decade 2010-2020. Analysing banking data for the period 2010-2020, showed that banks are characterized by a positive Return on Equity, supported by an increase in asset activity, bringing about a more effective use of them. However, also during the last decade, credit risk has played an important role in determining bank profits, restructuring actions and the erasure of non-performing loans, driving the diversification of the bank's asset portfolio.

"Employing big data tools to inquire into Albania's residential housing price trends", by Orion GARO, Research Department (BoA).

In the absence of a market price for real estate, this project presents a new methodology of providing data from other sources of information. The objective of this study is the use of "web scrapping" tools for collecting data from online websites, as well as generating indexes to evaluate its dynamics. Web scrapping is the process of using computer tools to extract data from a web page. The application of this method in the case of Albania, by means of Python, was made by gathering information on published house prices and generating price time series, from 2017 onwards.

1.4. RESEARCH PAPERS FROM OTHER CENTRAL BANKS

"The financial stability implications of digital assets" by Pablo D. AZAR, Garth BAUGHMAN, Francesca CARAPELLA, Jacob GERSZTEN, Arazi LUBIS, JP PEREZ-SANGIMINO, David E. RAPPOPORT, Chiara SCOTTI, Nathan SWEM, Alexandros VARDOULAKIS, Aurite WERMAN, Federal Reserve.

The value of assets in the digital ecosystem has grown rapidly, amid periods of high volatility. Does the digital financial system create new potential challenges to financial stability? This paper explores this question using the Federal Reserve's framework for analysing vulnerabilities in the traditional financial system. The digital asset ecosystem has recently proven itself highly fragile. However adverse digital asset markets shocks have had limited spillovers to the traditional financial system. Currently, the digital asset ecosystem does not provide significant financial services outside the ecosystem, and it exhibits limited interconnections with the traditional financial system. The paper describes emerging vulnerabilities that could present risks to financial stability in the future if the digital asset ecosystem becomes more systemic.

https://www.federalreserve.gov/econres/feds/the-financial-stability-implications-of-digital-assets.htm

"Will the green transition be inflationary? Expectations matter" by Alessandro FERRARI, Valerio NISPI LANDI, European Central Bank.

Authors analyse a gradual increase in the tax on emissions in a simple two-period New Keynesian model. They find that the increase in the tax today exerts inflationary pressures, but the expected further increase in the tax tomorrow depresses current demand, putting downward pressure on prices: we show that the second effect is larger. However, if households do not anticipate a future fall in income (because they are not rational or the government is not

credible), the overall effect of the transition may be inflationary in the first period. Authors extend the analysis in a medium-scale DSGE model and we find again that the green transition is deflationary. Also in this larger model, by relaxing the rational expectations assumption, they show the transition may initially be inflationary.

https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2726~3e04b5ba5d.en.pdf

"The burst of high inflation in 2021–22: How and why did we get here?" *by Ricardo REIS, Bank for International Settlement.*

The current institutional arrangements for monetary policy delivered more than two decades of low and stable inflation. Yet, central banks failed to prevent a burst of high inflation in 2021-22. This paper inspects four tentative hypotheses for why this happened. The first is a misdiagnosis of the nature of shocks during a time of great uncertainty leading to an overly long period of expansionary policy. The second is a neglect of expectations data driven by a strong belief that inflation expectations were firmly anchored and so inflation increases would be temporary. The third is an over-reliance on the credibility earned in the past, creating an illusion of too much room to focus on the recovery of real activity and underpredicting the resulting inflation. The fourth is a revision of strategy that made central banks tolerant of higher inflation because of the trend fall in the return on government bonds, even though the return on private capital stayed high.

https://www.bis.org/publ/work1060.pdf

"Macro-financial stability frameworks: Experience and challenges" *by Claudio BORIO, Ilhyock SHIM and Hyun SONG SHIN, Bank for International Settlement.*

Since the 2008–9 Great Financial Crisis, major advanced economies (AEs) have used monetary and macroprudential policies to achieve macroeconomic and financial stability. Emerging market economies (EMEs) have, in addition, combined interest rate tools with FX intervention, macroprudential policy and, sometimes, capital flow management measures (CFMs) to address the challenges from capital flow and exchange rate volatility. This paper provides an overview of the use of monetary, macroprudential and exchange rate policies, sometimes alongside CFMs, both in AEs and EMEs. It also assesses the extent to which the use of these policies constitutes a holistic macro-financial stability framework (MFSF). Authors reach three conclusions. First, combining tools has succeeded in improving policy trade-offs, notably by mitigating the risks to domestic stability arising from external influences. Second, a holistic MFSF is still a work in progress. Finally, more efforts need to be made to better understand the channels of international spillovers and spillbacks.

https://www.bis.org/publ/work1057.pdf

II. RESEARCH ACTIVITIES

2.1 16-TH SOUTH-EASTERN EUROPEAN ECONOMIC RESEARCH WORKSHOP

On December 5-6, 2022, the Bank of Albania organized the XVI Economic Research Workshop for Southeast Europe. This traditional workshop, , organized in the form of a discussion forum of research works and projects carried out during 2022, aims to promote the exchange of views between the Bank of Albania researchers and researchers from other central banks of the region and beyond, on the results and implications of scientific research on issues related to central banks' activity.

Below you can find the list of materials presented in this activity:

- *Searching for Neo-Fisher: A Model of Animal Spirit Driven Recessions*, by Jacob Robbins (University of Illinois, USA);
- *The Currency Composition Channel of Monetary Policy and the Role of Macroprudential Regulation*, by Kyriakos Neanidis, Christos S. Savva (University of Manchester, UK);
- *Understanding Inflation Dynamics: The Role of Government Expenditures*, by Yinxi Xie, Chang Liu (Bank of Canada, National University of Singapore);
- *Digital Money and Central Bank Operations*, by Charles Kahn, Manmohan Singh, Jihad Alwazir (IMF);
- *Output Gap Estimation and Monetary Policy with Imperfect Knowledge*, by Pei Kuang, Kaushik Mitra, Li Tang (University of Birmingham, UK);
- *Stock Market Bubbles and Monetary policy: a Bayesian Analysis*, by Arthur Galichere (University of Warwick, UK);

- *Households Saving Dynamics in a Continuous-time Adaptive Learning Heterogeneous-Agent New Keynesian Economy*, by Matteo Bondesan (ECB, University of Turin, Collegio Carlo Alberto, Italy);
- *Monetary policy in a two-country model with behavioral agents*, by Michal Brzoza-Brzezina, Paweł Galiński, Krzysztof Makarski (National Bank of Poland);
- *Non-linear Dynamics in Inflation Expectations: Evidence from Turkey*, by Omer Cayirli, Koray Kayalidere, Huseyin Aktas (Manisa Celal Bayar University, Turkey);
- *Central bank balance sheet and inflation in a small open euroized economy with constrained capital markets*, by Gent Sejko, Altin Tanku (Bank of Albania);
- *An Empirical Analysis on Inflation Rates Observed After COVID-19 Pandemic*, by Gulgun Arikan (Bogazici University, Istanbul, Turkey);
- *Emerging Balkan Countries Sovereign Bond Spreads: Additional Factors Are at Play*, by Arjan Kadareja, Ardita Todri (University of New York, Tirana)
- *Substituting banks: effects on investments*, by Francesco Bripi (Bank of Italy – Milan office)
- *Political budget cycle – does participation in IMF programs matter?*, by Drini Imami, Endrit Lami (Agriculture University of Tirana, Ministry of Finance and Economy of Albania);
- *The art of conducting macropru*, by Yannick Lucotte, Florian Pradines-Jobet (University of Orléans, France);
- *Why follow the Fed? Monetary policy in times of US tightening* by Gonzalo Huertas (IMF);
- *Remittances in times of crisis: evidence from Italian Corridors*, by Alessio Ciarlone (Bank of Italy);
- *What drives consumer price index changes: an empirical analysis of a selection of Western Balkan countries*, by Flora Merko, Ermira H. Kalaj, Alma Zisi (Aleksander Moisiu University, Durrës, Albania; Luigj Gurakuqi

University, Shkodër, Albania)

- *Directionality of Spillovers in the EMU: Evidence from the EU Sovereign Debt Crisis, by Pietro Bomprezzi, Filippo Passerini (Università Cattolica del Sacro Cuore, Milan, Italy)*
- *Are women truly less financially literate than men? On methodological problems with measuring knowledge, by Paweł Kuśmierczyk, Radosław Kurach, Marek Kośny (Wroclaw University, Poland);*
- *Evidences on households financial Fragility in Western Balkan countries beforehand Covid 19, by Elona Dushku (Bank of Albania);*
- *A Micro-Analysis of Household Saving Behaviour in Albania , by Ola Çami (Bank of Albania);*
- *Flight to climatic safety: local natural disasters and global portfolio reallocation, by Fabrizio Ferriani, Andrea Gazzani, Filippo Natoli (Bank of Italy);*
- *Central Banks and Climate Policy: Unpleasant Trade–Offs? A Principal–Agent Approach, by Donato Masciandaro, Riccardo Russo (Universita Luigi Bocconi, King's College London)*
- *Climate Risks in Albania and their Relevance to the Central Bank, by Margerita Topalli, Pierre Monnin (Bank of Albania, Council on Economic Policies - CEP);*
- *An assessment of climate change related risk in the case of the Western Balkan countries, by Gerti Shijaku, Pierre Monnin (Bank of Albania, Council on Economic Policies - CEP)*
- *Macroprudential Policies and Bank Risk-taking under Persistently Low-interest-rate Environment, by Jose D. Garcia Revelo (Univ. Orléans, LEO, Orléans, France);*
- *Does money matter for predicting prices in Albania? by Blerina Vika, Denada Xhaja, Ilir Vika (University of Tirana, Bank of Albania);*
- *Credit, financial conditions and monetary policy, by Meri Papavangjeli (Bank of Albania);*
- *Household Credit, Corporate Credit and the Real Economy: Empirical Evidence, by Bledar Hoda (Bank of Albania).*

While in the poster session the following papers have been presented:

- *Militarization and Income Inequality in European Countries (2000-2017), by Raul Caruso, Antonella Biscione (Catholic University "Our Lady of the Good Counsel", Tirana);*
- *Non-performing Loans and Bank Lending Behavior, Ardit Gjeçi, Matej Marinč, Vasja Rant (University of New York, Tirana. University of Ljubljana, Slovenia);*
- *Deprivation, mobility considerations and life satisfaction: A comparative study of 33 European countries, by Elvisa Drishti, Edvin Zhllima, Blendi Gerdoçi (University of Shkodra. Agricultural University of Tirana. University of Tirana);*
- *Climate risk management and banks in Albania, by Lindita Molishti (Bank of Albania);*
- *The Analysis of Albanian banking system, using the ROE's decomposition method, Fiqiri Baholli (Bank of Albania);*
- *Employing Big Data tools to inquire into Albania's residential housing price trends, by Orion Garo (Bank of Albania);*

2.2 FRIDAY SEMINARS

The seminar on the topic **"Measuring Advanced Manufacturing and Process Innovation: Applications to Productivity and Growth"**, by PhD. Elvira SOJLI, Associate Professor of Finance (University of New South Wales, Sydney), Leo LIU (University of New South Wales, Sydney); Wing WAH THAM (University of New South Wales, Sydney).

The authors propose new time-varying measures of advanced manufacturing and process innovations based on patent invention claims and titles from 1850 to 2019 across 51 countries. Using this measure, authors provide evidence

that these innovations are important for firm and aggregate economic growth through technological spillover to product innovations and increased profitability. Authors find that patents with advanced processes have higher forward citations and economic value than product patents of the same technology, class and cohort. Firms with higher quality process innovation are associated with higher profits, sales, capital, employment, and total factor productivity in the short run, while product innovation plays a larger role in the longer run. At the aggregate level, both advanced manufacturing and product innovations are positively related to US economic growth.

2.3 TECHNICAL SEMINARS

During the second half of 2022, the following materials have been presented.

Seminar on the topic "**ABC of research"**, by PhD. Elvira SOJLI, Associate Professor of Finance at the University of New South Wales, Sydney and the president of FIRN (Financial Research Network), September 2022.

Seminar on the topic **"The Analysis of Albanian banking system, using the ROE's decomposition method (2010-2020)"**, by Fiqiri BAHOLLI, Research Department, Bank of Albania.

Seminar on the topic **"A micro analysis of household saving behaviour in Albania"**, by Ola ÇAMI, Research Department, Bank of Albania.

Seminar on **"A synthetic metric approach to assess sustainable development in the case of Albania"**, by Gerti SHIJAKU

(Research Department, Bank of Albania) and Pierre MONNIN (Economist, Council on Economic Policies - CEP)

2.4 GOVERNOR'S AWARD FOR THE BEST DIPLOMA THESIS 2022",

The Bank of Albania, also for the year 2022, organized the open contest "Governor's Award for the Best Diploma Thesis" to encourage students in the field of economics, both inside and outside the country, to engage in quality scientific research work.

This year's contest was joined by 16 students on theses addressing dealt with various phenomena that are directly or indirectly related to central banks. The first prize was awarded to Mrs. Pegi Myshqeri, from "Goethe University", in Frankfurt, for her thesis on: "The effects of ECB asset purchases on European corporate bond markets". The second prize was awarded to Mr. Taulant Yzellari, from the "University of Cologne", Germany, for his thesis on: "International dynamics of real estate prices and macroeconomics". While the third prize was awarded to Mr. Ilir Brasha, from the "University of Tirana", for his thesis on: "The impact of government spending on economic growth, the size of the multiplier: The case of Albania".

2.5 OTHER ACTIVITIES

BBC CONFERENCE IN GENEVA, 22-23 SEPTEMBER 2022

This conference was attended by representatives of the Bank of Albania who presented the results of the following papers:

- *"Central bank balance sheet and inflation in a small open euroized economy with constrained capital markets"*, *Gent SEJKO, (Governor, Bank of Albania) and Altin TANKU, (Research Department, Bank of Albania).*

This research aims to investigate whether changes in the structure of BoA's balance sheet provide for additional monetary shocks with direct effects on inflation and economic activity. The main hypothesis is that changes in the structure of BoA balance sheet in favour of non-bank components (and equivalently changes of the monetary base in favour of COB), provide additional money supply shock beyond and above traditional expansionary effects of the policy rate. If this were the case, identification of these balance sheet structural shocks, have a direct and positive effect on inflation. To test the hypothesis we estimate a small structural VAR model with policy and non-policy variables. The identification of structural shocks in our VAR, is guided by two important insights: first, particular characteristics of the DGP (data generating process) might and should be considered in the structure of the model; second, we rely heavily on our knowledge of the decision making process as described in BoA Annual and Monetary Policy Reports.

- *"Combining monetary, fiscal and structural approaches to model Albanian inflation"*, *by Meri PAPAVANGJELI (Research Department, Bank of Albania).*

In the current context of high uncertainty in the global economy and global commodity prices rise, this article investigates empirically the driving forces of inflation in Albania through a structural approach, focusing especially on the developments in the food sector in general and cereals in particular, during the period from 2000 to first quarter 2022. Considering four measures of inflation such as: cereals, food, non-food, and headline inflation, it analysis the effects of domestic and external factors on inflation, including demand-side, supply-side and structural factors, using a vector error correction model (VECM), which allows to capture the short-term and long-term effects.

- *"Spillover effects of ECB policies in a SoE framework like Albania"*, *by Bledar HODA, (Research Department, Bank of Albania).*

In this study the author assesses the relative size of potential spillover effects of both ECB's policies, standard and unconventional measures, on the Albanian economy in the post-crisis period for the global economy after 2008. The study finds that the exogenous expansions of ECB balance sheet size leads to improved financial conditions in Albania, through an operative financial channel. Unconventional MP shock triggers a decline in the term premium of Albanian securities and slight decline in country risk Premium measure, but also appreciates the Albanian currency. Finally, the main transmission channel for these effects is the portfolio re-balancing channel. Unconventional MP shocks trigger negative response of capital inflows which are further transmitted into real sector.

III. LINKS OF OTHER INSTITUTIONS:

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)