

RESEARCH NEWSLETTER AT THE BANK OF ALBANIA

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The Research Newsletter No.26 presents a short summary of the Bank of Albania's research projects during 2021 H1. More concretely, it outlines the most recently concluded research papers, research work in progress, articles, and the main research activities organized mainly by Bank of Albania's economists in the course of the first half of 2021.

I. RESEACH PAPERS

1.1 RECENTLY CONCLUDED RESEARCH PAPERS

In 2021 H1, scientific research at the Bank of Albania consisted of empirical studies and analyses on: financial literacy and technology, banking demand and supply, the role of money, demographic developments, etc. A short summary is presented below.

"Evidence on financial literacy in Albania", by Elona Dushku, Research Department.

The research paper forwards evidence on the financial literacy in Albania based on data of the Population Financial Literacy Measuring Survey, conducted by the Bank of Albania in 2019. The data show that the level of financial literacy of individuals in Albania is low compared to the average of individuals worldwide. Individuals in Albania possess only 53% of the total knowledge, behaviour and appropriate financial attitudes, which is reflected in a low level of financial inclusion, both in

terms of knowledge and use of financial products and services. Only 54% of individuals in Albania know at least five financial products, compared to the 83% average of individuals globally. Even though individuals in Albania use means of payment more often, the level of their use is almost 2.5 times lower than the average global level. Based on the socio-economic characteristics of individuals we have identified that individuals with the lowest level of financial literacy in Albania are: women, individuals in the 18-29 years and 60-79 years age groups, individuals that have not or have minimum education, the unemployed persons, housepersons, the disabled people, students and low-income individuals. Consequently, these groups, but not only, should be included in the programs of the financial education strategy, in order to promote a future increase of financial literacy and well-being of the individuals in a large scale.

“A use of the empirical model approach to predict the short-and long- term need for liquidity in the interbank market: the case of the Albanian financial sector”, by Gerti Shijaku, Research Department.

The Bank of Albania regulates the need for liquidity in the financial sector over a mapped time horizon to reflect its monetary policy stance. It is this perspective, arising from the central bank’s analyses and forecasts on the demand for short and long-term liquidity in the market, which differs as a result of changes in autonomous and non-autonomous factors. For this reason, this research develops a series of empirical models with daily data for the period 2008-2019, in order to predict the need for liquidity in the interbank market, based on binary indicators and the approach of liquidity distribution according to autonomous and discretionary factors.

1.2 RESEARCH PAPERS IN PROGRESS

“Demand and supply in bank credit market. Did Albania experience a bank credit crunch “disequilibrium” episode after the global financial crisis?” by Gerti Shijaku, Research Department.

This paper presents an empirical investigation of the hypothesis whether there has been a possible credit crunch (rationing) episode in the credit market in Albania, particularly in the following the period after the global financial crisis. Using macroeconomic and banking sector data over this period, we disentangle credit demand and supply by estimating a dynamic disequilibrium model of the Albanian credit market with a standard VAR approach. Analysis includes bank credit market to firms (and households). Results are crosschecked by the insights from the bank lending surveys.

“Is there a role of money in the measurement of monetary policy in Albania?” by Altin Tanku, Ilir Vika, Research Department.

The Bank of Albania used to assign an important role for money till the middle of 2000s. Following its smooth transition to its full-fledged inflation targeting regime, the interest rate took the place as the main instrument in the conduct of the monetary policy. This commitment was in line with the influential view at the time, according to which quantity of money provided no information in the determination of output, prices, and interest rate levels. However, the negative shocks caused by the global financial crisis and most recently, the COVID-19 pandemic, have forced a substantial change in monetary policy to put its emphasis on the expansion of the central bank’s balance sheet. Good old monetary expansion has become the primary instrument of monetary policy. This paper tries to evaluate the empirical validity of this “new view” for a small open emerging economy by using a VAR model to study the effects of money shocks on main economic indicators in Albania. In order to do this properly, we aim first and foremost to define and construct the accurate indicator of money shock and identify it correctly in the Bank of Albania’s balance-sheet.

“FinTech 2020: Regulatory frameworks, digital currencies and stablecoins”, by Bledar Hoda, Research Department.

The cycle of innovations in financial technology (FinTech) is still an evolving process, while the emergence of new FinTech products and services is expanding on global scale. The innovations in the private sector are giving rise to two different trends, namely: (i) developments in the regulatory framework of public authorities to regulate the FinTech industry; and (ii) new development

in the market for cryptocurrencies and for new forms of collateralized cryptocurrencies called 'stablecoins'. In the public sector, technological innovations are penetrating (iii) the attention of an increasing number of central banks that are exploring the potential of Central Bank Digital Currencies (CBDC), in some cases in the form of laboratory experimenting. The focus of this discussion paper is to review the new trends and developments in those three aspects of FinTech. A key observation that comes out from this review is that the regulatory approaches implemented by authorities in many countries are not uniform. These approaches distinguish among themselves depending on the type of FinTech activity that is dominating in each country and on the willingness of each country to welcome new FinTech activities.

"Assessing the effects of demographic changes in the Albanian economy", by Meri Papavangjeli, Research Department.

Against the backdrop of rapid demographic changes having characterized the Albanian population in recent years and are expected to continue in the coming years, such as: aging and emigration of the labour force (mainly of the young and educated people), this paper/study aims to analyse and evaluate the economic and financial effects of these developments in the Albanian economy, which cannot be assessed through the traditional econometric models, and propose further appropriate economic policies in response to the above developments.

"Financial Literacy in Albania: Survey Results for Measuring the Level of Financial Literacy of the Population, 2019", by Arlinda Koleniço, Kliti Ceca, Egnis Isaku, Research Department.

The Bank of Albania has assessed, for the third time, the level of financial literacy of the Albanian population. The survey "Financial Literacy in Albania" is designed according to the OECD/INFE guidelines and methodology and was conducted in collaboration with INSTAT during September-October 2019. The data obtained from this survey provide insights on identifying the issues that need attention and intervention through financial education projects by the Bank of Albania.

1.3 ARTICLES

"A statistical and empirical overview of remittance flows", by Gerti Shijaku, Research Department.

Remittance flows constitute an important source of income for financing aggregate demand. In addition, they are an important component in Albania's balance of payments statistics. For this reason, this paper analyses a number of important issues related to their sustainability, shock persistence, and rate of return to equilibrium in the event of an economic shock. An important part in the analysis addresses the long-term relationship, if any, between remittance flows and macroeconomic indicators related to sending and receiving countries. The study focuses on the aftermath of the global financial crisis.

"Remittances and their impact on poverty: the case of Albania", by Elona Dushku, Research Department, and Argita Frashëri, Department of Financial Statistics.

The purpose of this article is to assess the impact of remittances on poverty in Albania, based on individual household data obtained from the first wave of the Household Wealth Survey in Albania, conducted by the Bank

of Albania in 2019. Survey data show that, in 2018, 23% of Albanian families have received proceeds from emigrants, averaging 2000 Euros per family per year, an average that varies depending on the region and the different groups of families. Furthermore, it is assessed that remittances are the second most important source of household earnings, after income from work. Empirical estimates based on probit regressions show that remittances have significant positive impact on the reduction of probability of households being poor, confirming their importance for Albanian households.

“The impact of a crisis-induced economic shock on Albania’s unemployment rate”, Orion Garo, Research Department.

The COVID-19 pandemic caused, across the world, an unprecedented tribulation in the dynamics of most economic indicators. Output growth in Albania, as a result of this socioeconomic crisis, experienced a deep negative shock. This article examines the relationship between the unemployment rate and the output growth, in the context that output growth undergoes a drastic drop, as in the case of the one triggered by the COVID-19 pandemic. The employed econometric model for the unemployment rate in Albania uses net labour flows, estimated by officially supplied labour market data. It is a VAR specification used to describe the responses of the unemployment rate to any simulated shock on each of the net labour flows, as well as the output growth series. The findings of this analysis rely on VAR’s Impulse response functions, and the most important result is that for a single quarter 10 p.p. drop in the output growth, the annual change in the unemployment rate increases about 1.84 p.p. over 4 consecutive quarters.

“Asset and household debt accumulation in remittance receiving countries: Evidence from the Albanian Household Wealth Survey”, by Ola Çami, Research Department

Using data from the first wave of the Albanian Household Wealth Survey (2019), this article aims to examine the differences in the household accumulation of net wealth, as well as analysing the wealth inequality and the impact of remittances on it. The analysis suggests that remittances-receiving households are more vulnerable to economic shocks than households that do not receive remittances. As a result, remittances have a high potential of positively contributing to their level of poverty and welfare. Remittance-receiving households have a higher participation rate in real assets, especially houses and other real estate, compared to the households not receiving remittances, but in monetary terms display a lower average value in forming these assets. The results show that remittance-receiving household’s net worth Gini coefficient is lower, therefore remittances seem to contribute positively to the total distribution of wealth.

1.4 ARTICLES FROM OTHER CENTRAL BANKS

“Global Uncertainty”, Giovanni Caggiano, Efrem Castelnuovo, Bank of Finland.

The authors estimate a novel measure of global financial uncertainty (GFU) with a dynamic factor framework that jointly models global, regional, and country-specific factors. They quantify the impact of GFU shocks on global output with a VAR analysis that achieves self-identification via a combination of narrative, sign, ratio, and correlation restrictions. The authors find

that the world output loss that materialized during the great recession would have been 13% lower in absence of GFU shocks. Also the authors unveil the existence of a global finance uncertainty multiplier: the more global financial conditions deteriorate after GFU shocks, the larger the world output contraction is.

https://helda.helsinki.fi/bof/bitstream/handle/123456789/17884/BoF_DP_2101.pdf?sequence=1&isAllowed=y

“Labour Reallocation during the Covid-19 Pandemic”, Daniel Aaronson, Riley Lewers, Daniel G. Sullivan, Federal Reserve Bank of Chicago.

The Covid-19 pandemic and associated recession have had dramatically different effects across industries, with some, including large parts of the leisure and hospitality sector, truly devastated and others, like much of the manufacturing sector, able to recover quite quickly. This has led some analysts to describe the pandemic as a reallocation shock, requiring substantial movement of labour across industries. Such a process likely requires substantial time, during which the natural rate of unemployment may be elevated. In this Chicago Fed Letter, authors consider two questions: First, has the need for labour reallocation risen, and second, has there been an increase in the amount of reallocation that is actually occurring?

<https://www.chicagofed.org/publications/chicago-fed-letter/2021/455>

“German banks’ behavior in the low interest rate environment”, Ramona Busch, Helge C. N. Littke, Christoph Memmel, Simon Niederauer, Deutsche Bundesbank.

Using data from a quantitative survey of German banks at three points in time (2015, 2017 and 2019), the authors analyse the impact of changes in the interest rate level on banks’ net interest income and the countermeasures they take. A decline in the interest rate level has a more negative impact on net interest income, the longer the decline lasts and the lower the interest rate level is. This impact softens with increasing risk of changes in the present value of banking books. Authors do not find that banks generally increase their risks following a drop in income. However, poorly capitalized banks subsequently increase the credit risk of their bond portfolio. After a fall in operational income, banks increase their fee and commission income and reduce their costs. In addition, banks tend to extend their mortgage lending after a drop in their interest income.

<https://www.bundesbank.de/resource/blob/869794a514c1f65c82ee9764744252ced8fecc/mL/2021-07-21-dkp-23-data.pdf>

II. RESEARCH ACTIVITIES

2.1 TECHNICAL SEMINARS

“Economic History of Central, Eastern and Southeastern Europe, from 1800 to the present” by Dr. Matthias Morys, Lecturer in Economics at York University, February 2021.

This presentation consists of a summary of the book with the same title written by the author, a book presenting the economic history of Central, Eastern and South-Eastern Europe, from 1800 to the present day. Thus, three decades after the fall of communism, in many countries of the Central, Eastern and South-Eastern Europe, the process of transformation is incomplete, making the convergence process longer than expected. The current situation in Central, Eastern and South-Eastern Europe has accentuated the need for a better understanding of the long-term political and economic implications of the region's historical undergoing. Bringing together authors from the East and the West, the book also relies on the scientific research of a new generation of scholars of the CESEE region, providing an entirely modern reflection of the region's history.

2.2 OTHER ACTIVITIES

Bank of Albania becomes part of the Network for Greening the Financial System (NGFS)

Since early 2021, the Bank of Albania has become a member of Network for Greening the Financial System (NGFS). The purpose of this network is to help strengthening the global response in order to meet the goals set by the Paris Agreement, to increase the role of the financial system in risk management and to mobilize capital

toward green and low carbon investment, in the broader context of environmentally sustainable development. For this purpose, the Network (NGFS) defines and promotes best practices to be implemented within and outside NGFS's members, as well as conducting analytical work on green finance,

“Training activities of the Research Department staff in the framework of a cooperation agreement between the Oesterreichische Nationalbank (OeNB) and the Bank of Albania”, virtually. In the framework of the cooperation between the Oesterreichische Nationalbank and the Bank of Albania, four seminars were held, the purpose of which was to present the OeNB's Euro survey, as well as the use of the belonging data in research, analysis and decision-making work. The presented topics are listed below:

- *“The extension and the determinants of euroization - Evidence from OeNB Euro Survey”, by Thomas Scheiber, Research Department, Oesterreichische Nationalbank;*
- *“Household before the Covid-19 Crisis”, by Melanie Koch, Research Department, Oesterreichische Nationalbank.*
- *Macro prudential sensitivity indicators based on the OeNB Euro Survey” by Aleksandra Riedl, Research Department, Oesterreichische Nationalbank.*
- *Methodological Approach of the OeNB Euro Survey”, by Elisabeth Beckmann, Research Department, Oesterreichische Nationalbank.*

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)