

August 2017

## CESEE Research Update

Foreign Research Division www.oenb.at/cesee-research-update

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Oesterreichische Nationalbank, Foreign Research Division Postal address: P.O. Box 61, A 1011 Vienna, Austria To subscribe or unsubscribe to our newsletter, please visit our website The CESEE Research Update is released quarterly by the Foreign Research Division of the Oesterreichische Nationalbank (OeNB). The aim of this newsletter is to inform readers about OeNB research and analysis output on Central, Eastern and Southeastern Europe (CESEE) as well as past and forthcoming CESEE-related events.

Foreign Research Division OeNB

#### Highlight of this Issue

25<sup>th</sup> anniversary of the Joint Vienna Institute High-level conference on "Globalization, Technology, and Lifelong Learning," June 29 and 30, 2017

Celebrating its 25<sup>th</sup> anniversary, the Joint Vienna Institute (JVI) held a high-level conference on the premises of the OeNB on June 29 and 30, 2017. The conference turned the spotlight on challenges related to globalization and technological change, such as dislocation and social inclusion. Consensus emerged that these challenges may (partly) be addressed by adequate capacity building, as offered by the JVI, namely insofar as lifelong learning is supported. The speakers included high-ranking policy makers, representatives of international organizations as well as former JVI course participants that have risen to top positions, like *Dimitar Bogov*, Governor of the National Bank of the Republic of Macedonia.

Both the Austrian Minister of Finance Hans Jörg Schelling and OeNB Governor Ewald Nowotny highlighted in their respective opening remarks that the JVI is a best-practice example of enhancing international cooperation and learning from one another. They also stressed the JVI's proven track record in adjusting to a quickly changing environment.

Maurice Obstfeld, Chief Economist of the IMF, kicked off the event by delivering the JVI's 2017 Annual Lecture, focusing on the wealth effects of trade integration. Obstfeld reminded the audience of identified trade benefits, like higher productivity, lower prices and more choices for consumers. At the same time, trade has apparently also improved social inclusion via tradeinduced competition effects that have made it harder to discriminate between different types of costumers. Interestingly, households in emerging economies (EMEs) are more likely than those in advanced economies (AEs) to perceive trade in a positive light with regard to its impact on jobs and wages. According to Obstfeld, this may be due to the fact that since the early 2000s lowincome earners in EMEs have benefited somewhat more from economic growth than their peers in AEs. Paving the way for more inclusive growth is thus seen as a key policy priority.



The ensuing **first panel session**, moderated by *Harald Waiglein* (Austrian Ministry of Finance), deepened the discussion of challenges related to globalization and technological change. The panelists, including *Waiglein* and *Andrew Berg* (IMF), were concerned about the effects technological innovations have on inequality. On the one hand, technological change raises demand for very specialized skills, with only skilled employees expected

to enjoy higher wage premiums. On the other hand, new machines and robots are viewed as being closer substitutes for people than in the past, which could result in lower labor shares and benefit capital owners. Accordingly, Kori Udovički (former Deputy Prime Minister of Serbia) sees a necessity to redistribute not only income but also ownership rights. Turning to globalization, Robert Teh (WTO) and Karl Pichelmann (European Commission) pointed to localized losers as a consequence of increased trade integration. Trade agreements should thus also comprise social and environmental standards and/or be accompanied by well-designed adjustment programs (such as retraining or regional development). The discussion also indicated different stages of globalization. While at the current stage globalization is primarily driven by the buildup of global value chains, financial globalization is expected to be deepened only at later stages. Andreas Ittner (OeNB) confirmed this view by highlighting that in the euro area no less than about one-half of debt securities and equity is held domestically. Financial fragmentation is still in evidence in Europe, with one of the main reasons being non-harmonized supervisory frameworks according to Ittner. In a similar vein, Robert Teh emphasized that globalization is still an unfinished agenda, not only in the financial sector, but also because trade costs continue to be high and geographical distance between trading partners still matters.

In his dinner speech, Governor Ewald Nowotny (OeNB) focused on the enormous challenges in institution and capacity building central banks have faced over the past 25 years, and on the specific role the JVI, the IMF and the Austrian Authorities – among the latter particular the OeNB – have played contributing to this endeavor. He emphasized that |VI training and relationship building have been, and will continue to be, to the mutual benefit of both the donor and recipient central banks. In a similar vein, Dimitar Bogov, Governor of the National Bank of the Republic of Macedonia and JVI alumnus, confirmed the IVI's important role in supporting the transition process by filling existing knowledge gaps. JVI courses enable the participants to take part in international fora and working groups, and prepare them to receive technical assistance from peer institutions. Bogov expressed his gratitude to the JVI not only for the technical inputs, but also for the exposure to an intercultural environment and the valuable networking opportunities.

The second day of the conference was dedicated to lifelong learning as a possible means to tackle the globalization challenges. Mitsuhiro Furusawa, Deputy Managing Director of the IMF, delivered a keynote address on this topic, in which he underlined that the JVI is well positioned to meet the challenges ahead thanks to its flexibility and dynamism. For instance, courses have continuously been adjusted: starting 25 years ago from fundamentals of market economies' functioning, turning to financial sector issues and crisis mitigation capacities of fiscal and monetary policies in response to the global financial crisis, and shifting more recently toward medium-term structural policies that focus on sustainable, equitable and inclusive economic growth. Furusawa also stressed that in the past 25 years the Austrian Authorities have supplied know-how, facilities, substantial funding, and most importantly, the vision of a center that builds strong relations among policy makers from across the CESEE region.



In the subsequent second panel discussion, moderated by Andrew Palmer from The Economist, the panelists agreed that a "one-shot education" system is no longer adequate and lifelong learning and on-the-job training are of growing importance. *Mark Keese* (OECD) expects that approximately one-third of current jobs will be affected by digitalization — either by disappearing completely or by undergoing radical change. Referring to firm-level survey evidence for CESEE countries, *Aron Gereben* (EIB) emphasized that the lack of a sufficiently skilled labor force is one of the main barriers to investment, also in low-skilled sectors. *Ralph de Haas* (EBRD) stressed that the curricula of secondary and tertiary education institutions require adaptation to

match the current needs of labor markets in CESEE. To avoid inefficiencies that lead to skill mismatches, coordination between employers and educators is of crucial importance. In a similar spirit, Keese argued for enhanced cooperation across public institutions and ministries to prevent unnecessary information deficiencies. The importance of lifelong learning for the public sector and the government was highlighted by *Sharmini Coorey* (IMF). She argued that a core task of the government is redistribution – possibly in the form of a basic minimum income. At the same time, she pointed out that jobs are crucial for an individual's well-being and life satisfaction.



Gill Hammond (Bank of England) addressed the topic of new financial technologies, accentuating the important role played by central banks. She argued that while digital currencies rank high on the research agendas of central banks, other FinTech areas receive less attention. Hammond warned that central banks should not fall behind in this respect, as it is of great importance for them to understand the implications of these new developments. Training opportunities at the JVI can thus help improve the respective knowledge base in the region. Fernando Restoy (BIS) expects the role of financial market supervisors to change considerably, with work proving more analytical. Big data techniques will become increasingly important and training in this field should be central.

The general consensus was that single policies alone are not sufficient to meet upcoming challenges. Instead, we must embrace a broad-based approach that is as inclusive as possible.

Background material and the conference program are available at: <a href="https://www.jvi.org/special-events/2017/jvi-25th-anniversary-conference.html">https://www.jvi.org/special-events/2017/jvi-25th-anniversary-conference.html</a>

#### **OeNB Euro Survey**

The OeNB Euro Survey of households has been conducted since 2007 in ten Central, Eastern and Southeastern European (CESEE) countries. With a strong focus on exploring different dimensions and drivers of currency holdings and households' saving and borrowing behavior, the OeNB Euro Survey additionally provides information on various aspects of financial literacy of CESEE households. The main results of the survey have recently been updated with 2016 data and can be found at <a href="https://oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html">https://oenb.at/en/Monetary-Policy/Surveys/OeNB-Euro-Survey.html</a>.

Obviously, financial literacy is an important determinant of reasonable economic decision-making. The indicators on financial literacy derived from the Euro Survey results are based on standard questions first introduced by Lusardi and Mitchell (2011) in the 2004 U.S. Health and Retirement Study. In the Euro Survey, respondents were asked four questions about the concepts of compound interest, inflation (real interest rate), exchange rate, and risk diversification. The chart shows how many questions respondents answered correctly. About 15% of CESEE

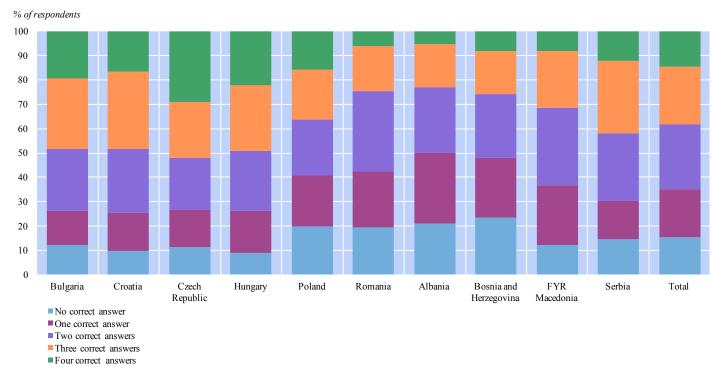
respondents answered all four questions correctly, another 24% answered three questions correctly. The remaining 61% only got two or less right.

If we look at individual countries, Serbia and Poland are close to the CESEE average, while respondents in Bulgaria, the Czech Republic, Hungary and Croatia scored higher on average; respondents in Albania, Bosnia and Herzegovina, the FYR Macedonia and Romania showed a lower level of financial literacy than their CESEE peers.

Financial literacy varies greatly between countries depending on the indicator used (compound interest rate, inflation, exchange rate and risk diversification). For instance countries with experience of hyperinflation often show good results on inflation literacy, while exchange rate literacy is influenced by the exchange rate regime and the share of foreign exchange loans in a country.

For detailed results on the four indicators, see the OeNB's website.

#### Overall financial literacy



Source: OeNB Euro Survey, 2012-2016, average.

Note: Respondents were asked four questions about financial literacy (i.e. compound interest rate, inflation, exchange rate, and risk diversification). Columns show how many questions respondents have answered correctly.

# Photos: Wacker/Cupák

#### Visiting Research at the Foreign Research Division

Konstantin M. Wacker, Gutenberg-University Mainz



From May to July 2017 Konstantin M. Wacker. assistant professor at Gutenberg-University Mainz, visited the Foreign Research Division in the OeNB. During his visit he collaborated with Mariya Hake on a project on monetary policy and financial

risk in six Central and Eastern European countries: Albania, Czech Republic, Hungary, Poland, Romania, and Serbia. More precisely, the goal was to investigate how central banks in those countries use their policy tools in the face of systemic financial risk. In the conventional monetary policy framework, the policy rate should generally not be used to address financial risk concerns. Rather, the central bank (or other authorities) should rely on additional instruments, such as macroprudential measures. "One target, one instrument" is the code of conduct that is also known as "Tinbergen rule".

However, if there is only a limited arsenal of macroprudential tools available, using the policy rate becomes a second-best option. The data investigated during Dr. Wacker's research visit are consistent with this consideration: most of the sample countries had comprehensive macroprudential tools in place prior to the financial crisis. They hence did not use the policy rate to address financial risk concerns. Conversely, in countries where the macroprudential framework was less developed, the central bank had to use the policy rate in a pro-cyclical manner to counter systemic financial risk.

Additionally, Dr. Wacker used this visiting research period at the OeNB to further prolonged research concerning the role of German factor payments for Euro area imbalances and on the measurement of foreign direct investment. He held two internal seminars at the OeNB Economics Department and gave one talk at the Vienne Institute for International Economic Studies (wiiw). Andrej Cupák, National Bank of Slovakia



From June to August 2017, Andrej Cupák, economist at the Research Department of the National Bank of Slovakia, joined the Foreign Research Division in the OeNB for a research cooperation project focusing on the topic of financial literacy and household

finances and consumption more generally.

During his visit he worked with Pirmin Fessler, Maria Silgoner and Elisabeth Ulbrich (all OeNB) on a project under the heading "Exploring differences in financial literacy across countries: the role of individual characteristics, experience and institutions."

For various reasons (e.g. rising capital-to-income ratios, digitalization, fintech, common capital markets union), households will face a larger variety of complex financial products in the future, which are likely to be more direct and more risky. Given households' lack of experience with the stock market and financial products in general, which is especially pronounced in continental Europe, the researchers named above tried to answer the following research questions in a paper:

- Do individuals possess enough financial literacy to deal with increasingly complex financial products, and how prepared are they across different countries?
- Are differences in financial literacy mainly due to differences in observable individual characteristics?
- Does experience with financial products improve financial literacy?
- Can differences in financial literacy be attributed to different economic environments of countries?

In the context of these research questions they derive policy conclusions with regard to (1) enhancing financial literacy in an efficient way and (2) potential interactions between financial literacy, the macroeconomic and institutional environment and financial stability.

The role of financial literacy as an important ingredient of informed choices and sound financial behavior by consumers has been recognized by the literature during the last years (see, e.g. Campbell, 2006; Jappelli, 2010; Fernandes et al., 2014; Lusardi and Mitchel, 2014). Moreover, the literature shows that poor outcomes in household finance and questionable investment decisions mostly occur for households with low levels of income and financial literacy (Badarinza et al., 2016).

Differences in financial literacy across countries have been predominantly explored in descriptive studies (e.g. Lusardi and Mitchel, 2011; Atkinson and Messy, 2012; OECD, 2016). An exception is a study by Jappelli (2010), who analyzes the relationship between macroeconomic variables and financial literacy using international panel data on 44 countries over the period 1998–2008. Yet, the differences in the observed distribution of financial literacy across households and individuals have not been studied in a cross-country framework using comparable individual-level survey data.

The described research project at the OeNB delivers such an analysis by answering the question what (possibly) determines the observed differences in financial literacy of individuals between countries by employing micro-

econometric tools from the policy-evaluation and decomposition literature (Blinder, 1973; Oaxaca, 1973).

The study makes several novel contributions to the empirical literature on financial literacy and household finances. It provides a detailed analysis of the latest update of the OECD/INFE database on financial competencies of individuals, which was made available in the summer of 2017. It is also the first study to employ counterfactual decomposition techniques in the analysis of observed differences in financial literacy in a crosscountry perspective. In their framework, the authors define individuals from Finland as a benchmark (reference) category against which they compare the financial literacy of individuals from other countries available in the dataset (i.e. Austria, Brazil, Canada, Croatia, Germany, Hungary, Hong Kong, Jordan, Netherlands, Russia, and the U.K.). The findings could help better understand the potential determinants of gaps in financial literacy between countries, which are substantial in some cases (e.g. Finland vs. Croatia or Russia). The results of the study should be highly relevant for policymakers attempting to increase financial awareness in their country, which has been shown to be an important determinant of sound financial and economic behavior.

## Focus on European Economic Integration Q2/17 – latest issue (full version)

#### **Studies**

How financially vulnerable are CESEE households? An Austrian perspective on its neighbors, Fessler, P., List, E., Messner, T. p. 58-79 (study)

The relevance of remittance inflows to CESEE countries: evidence from macro- and micro-level data, Raggl, A. K., p. 80-102 (study)



#### Event wrap-ups and miscellaneous

HFCS-CESEE Workshop: How to use survey data for analyzing financial stability in CESEE countries, compiled by Pirmin Fessler and Caroline Stern

The OeNB's 80<sup>th</sup> East Jour Fixe: Bulgaria and Romania – 10 years after EU accession, compiled by Mathias Lahnsteiner

## Focus on European Economic Integration Q3/17 - forthcoming end of August

#### **Studies**

The new silk road, part I: a stocktaking and economic assessment, Barisitz, S., Radzyner, A.

Competitiveness of CESEE EU Member States: recent trends and prospects, Ritzberger-Grünwald, D., Schreiner, J., Wörz, J.

Fintechs and their emergence in banking services in CESEE, Stern, C.

Comparing market power at home and abroad: evidence from Austrian banks and their subsidiaries in CESEE, Feldkircher, M., Sigmund, M.

#### Save the Dates

Lecture by Prof. Joshua Aizenman Dockson Chair in Economics and International Relations, University of Southern California and NBER

### The new Macroeconomic Quadrilemma – Mundell's Trilemma in the era of Financial Instability

Monday, September 4, 2017 9:00 a.m. Oesterreichische Nationalbank, Vienna Veranstaltungssaal, ground floor

To receive an invitation please email to <a href="mailto:event-management@oenb.at">event-management@oenb.at</a>.

## 81st East Jour Fixe of the Oesterreichische Nationalbank Nonperforming loans in CESEE: macroeconomic dimension and resolution strategies

September 18, 2017 Oesterreichische Nationalbank, Vienna Veranstaltungssaal, ground floor

In the wake of the global economic and financial crisis, nonperforming loans (NPLs) have turned into a major headache given that their ratios quickly reached unprecedented levels. After all, bad debt not only poses a threat to financial stability, but also proves a stumbling block to economic growth in many countries. The OeNB's 81st

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East Jour Fixe will follow up on this issue by focusing on the macroeconomic dimension of NPLs as well as on resolution strategies – particularly in CESEE.

Session 1 will set the stage for the discussion. Apart from clearly defining NPLs, this session will serve to look at NPL levels in CESEE and in the euro area and to assess implications for financial stability. Session 2 will then shed light on the determinants and the macroeconomic impact of NPLs – both through the lens of household survey data and from a macroeconomic perspective. Session 3 will examine progress in NPL resolution from the viewpoint of various stakeholders.

To receive an invitation please email to event-management@oenb.at.

## Conference on European Economic Integration (CEEI) 2017 A modern take on structural reforms – past and future challenges for CESEE and Europe at large

organized by the Oesterreichische Nationalbank (OeNB)

November 20 and 21, 2017 Vienna Marriott Hotel Parkring 12a, 1010 Vienna, Austria

Amid today's formidable challenges, well-designed and effective structural reforms are key to shaping Europe's future and facilitating its return to balanced growth and convergence. The CEEI 2017 will revisit the profound market reforms carried out in Central, Eastern and Southeastern European (CESEE) countries, shedding light on individual privatization strategies as well as gradual versus shock transformation. In line with a modern understanding of structural reforms that goes beyond the liberalization and deregulation doctrine of the past, speakers will also highlight social aspects and distributional effects of such reforms. Given the quickening pace of technological change, the conference will moreover serve to assess the implications of future challenges arising from digitalization, deindustrialization and the emerging protectionist threat to Europe. Taking a forward-looking perspective, experts from academia and politics will discuss which reform steps are necessary to provide for prosperous labor, product and capital markets.

More information: https://www.oenb.at/en/Calendar/2017/20171120 21 ceei.html

### Olga Radzyner Award 2017 for Scientific Work on European Economic Integration

The OeNB has established an award to commemorate Olga Radzyner, former Head of the OeNB's Foreign Research Division, who died in a tragic accident in August 1999. The award is bestowed on young economists for excellent research on topics of European economic integration and is conferred annually. In 2017, four applicants are eligible to receive a single payment of EUR 3,000 each from an annual total of EUR 12,000.

Submitted papers should cover European economic integration issues and be in English or German. They should not exceed 30 pages and should preferably be in the form of a working paper or scientific article. Authors shall submit their work before their 35<sup>th</sup> birthday and shall be citizens of any of the following countries: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, FYR Macedonia, Hungary, Kosovo, Latvia, Lithuania, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia and Ukraine. Previous winners

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of the Olga Radzyner Award, ESCB central bank employees as well as current and former OeNB staff are not eligible. In case of co-authored work, each of the co-authors has to fulfill all the entry criteria.

Authors are requested to send their submissions by electronic mail to <a href="mailto:eva.gehringer-wasserbauer@oenb.at">eva.gehringer-wasserbauer@oenb.at</a>. Entries for the 2017 award must arrive by September 15, 2017, at the latest. Together with their submissions, applicants must provide copies of their birth or citizenship certificates and a brief CV.

For more information, please contact **Eva Gehringer-Wasserbauer** in the OeNB's Foreign Research Division.

See also: Olga Radzyner Award

#### Call for Applications: Visiting Research Program

The Oesterreichische Nationalbank (OeNB) invites applications from external researchers (EU or Swiss nationals) for participation in a Visiting Research Program established by the OeNB's Economic Analysis and Research Department. The purpose of this program is to enhance cooperation with members of academic and research institutions (preferably postdoc) who work in the fields of macroeconomics, international economics or financial economics and/or with a regional focus on Central, Eastern and Southeastern Europe.



The OeNB offers a stimulating and professional research environment in close proximity to the policymaking process. Visiting researchers are expected to collaborate with the OeNB's research staff on a prespecified topic and to participate actively in the department's internal seminars and other research activities. They will be provided with accommodation on demand and will, as a rule, have access to the department's computer resources. Their research output may be published in one of the department's publication outlets or as an OeNB Working Paper. Research visits should ideally last between three and six months, but timing is flexible.

Applications for 2018 should be e-mailed to <a href="mailed-to-eva.gehringer-wasserbauer@oenb.at">eva.gehringer wasserbauer@oenb.at</a> by November 1, 2017.

Applications (in English) should include

- a curriculum vitae,
- a research proposal that motivates and clearly describes the envisaged research project,
- an indication of the period envisaged for the research visit, and
- information on previous scientific work.

Applicants will be notified of the jury's decision by mid-December 2017.

See also: Visiting Research Program 2017

#### **Upcoming Events**

The following events are organized by the OeNB and cover CESEE relevant topics. Please note that attendance is by invitation only. If you are interested in participating in one or more of the events, please send an e-mail to <a href="mailto:event-management@oenb.at">event-management@oenb.at</a>.

August 28, 2017	Book presentation by Markus K. Brunnermeier: "The Euro and the Battle of Ideas" ("Euro: Der Kampf der Wirtschaftskulturen") by Markus K. Brunnermeier, Harold James and Jean-Pierre Landau. Markus K. Brunnermeier is Edwards S. Sanford Professor of Economics at Princeton University and Director of Princeton's Bendheim Center of Finance. Please note that the event will be in German.
September 4, 2017	Lecture by Prof. Joshua Aizenman, Dockson Chair in Economics and International Relations, University of Southern California and NBER: "The new Macroeconomic Quadrilemma – Mundell's Trilemma in the era of Financial Instability"
September 18, 2017	81st East Jour Fixe: "Nonperforming loans in CESEE: macroeconomic dimension and resolution strategies"
October 11, 2017	Global Economy Lecture by David Dorn, Professor of Economics, University of Zurich: "Technology and labor markets" (working title)
November 20 and 21, 2017	Conference on European Economic Integration: "A modern take on structural reforms – past and future challenges for CESEE and Europe at large"

#### OeNB Courses at the Joint Vienna Institute (JVI)

For further details see: www.jvi.org

January 23 – 26, 2017	Advanced Course on Financial Stability Stress Testing for Banking Systems
January 30 – February 3, 2017	Banking Supervision within the Basel Framework (in cooperation with JVI and DBB)
March 2 – 3, 2017	International Cooperation in Central Banks
March 13 – 17, 2017	Monetary Policy Implementation (in cooperation with JVI and DBB)
March 20 – 22, 2017	Financial Education
May 8 – 12, 2017	Integration in Europe: European Union and Eurasian Economic Union (in cooperation with the Austrian Federal Ministry of Finance)
September 11 – 15, 2017	Challenges for Candidate and Potential Candidate Countries in the EU and EMU
September 11 – 15, 2017	Challenges for Candidate and Potential Candidate Countries in the EU and EMU Accession Process (in cooperation with the Austrian Federal Ministry of Finance and the ECB)
September 11 – 15, 2017  October 9 - 13, 2017	Accession Process (in cooperation with the Austrian Federal Ministry of Finance and
	Accession Process (in cooperation with the Austrian Federal Ministry of Finance and the ECB)  Macro-Financial Stability in Central, Eastern and Southeastern Europe (in cooperation