

# Research Update

Economic Analysis and Research Department www.oenb.at/research.update

#### Content

12 <sup>th</sup> Lending Report of the OeNB, Bank Lending Grows Moderately in Austria, Credit Standards Remain Tight2
Economic Outlook for Austria3
Competitiveness Research Network (CompNet)4
The OeNB's Special Focus: CESEE
76 <sup>th</sup> East Jour Fixe: Using Survey Data For Economic Policy Research – A Focus on CESEE; save the date5
A new Model for Balanced Growth and Convergence10
OeNB Summer School — Applications of multilevel models
Call for Applications – Visiting Research Program6
Call for Submission: Franz Weninger Award 20147
Call for Entries: Olga Radzyner Award 2014
Periodical Publications8
OeNB Working Papers9
External Publications by Staff Members10
Upcoming and Recent Events11
OeNB Courses at the Joint Vienna Institute (JVI)11
www.oenb.at
cesee.oenb.at
www.hfcs.at

#### **Editorial**

by Doris Ritzberger-Grünwald Director of the Economic Analysis and Research Department

In Search of Growth

Being an Austrian, lamenting the absence of growth has a ring of luxury to it, although developments have admittedly wors-

ened recently. Being a European, looking out for growth has to be on top of everybody's agenda. As it looks now, the turnaround won't happen in 2014, either, despite high expectations and optimistic forecasts. Hence the very positive response to the Eurosystem's latest decisions, even though they lead us into even more uncharted territory. Negative interest rates and targeted LTROs have not be around yet.

If these measures don't work either, do we have to get used to very low real GDP growth rates, so low that GDP lines will be barely distinguishable from the x-axis in charts? Perhaps this is the new normal for highly developed European countries. But is it also the new normal for those economies which should grow significantly faster than we do, to continue to catch up, as their GDP per capita is still only half of ours? And, even more worrying, is this the new normal for the periphery countries, where unemployment rates are still in the two digits?

Much will depend on the results of the ECB's AQR and stress tests, which may be instrumental in cleaning up the financial sector. Rumors about a Portuguese bank have just been shaking the interbank market. And rumors about a Bulgarian bank have nearly caused a bank run. But will trust arrive once these problems have been dealt with? Here is a lesson to be learnt from CESEE: In 2013, almost two-thirds of households still prefer to hold cash rather than a savings account, as trust into the domestic banking systems has yet to be rebuilt —more than 15 years after the last local banking crisis.

Today's crisis had its origin in the financial market sector, hence this is where fundamental changes have to be made. But the banking union will not solve all of our problems. Similar to monetary policy, it won't create growth per se. In this respect additional ideas of how to spur growth are highly welcomed. To kickstart thinking, a new research topic of the OeNB's Anniversary Fund in 2015 raises the question: "Growth – Where has it gone to? Where should it come from? How to stimulate sustainable growth in Europe?"

Doris Ritzberger-Grünwald

# Bank Lending Grows Moderately in Austria, Credit Standards Remain Tight 12<sup>th</sup> Lending Report of the OeNB

The year-on-year growth rate of the volume of Austrian banks' loans to nonfinancial corporations has lost momentum continuously since summer 2012 during the phase of weakening economic activity, dipping to a low of 0.2% in March 2014 and subsequently increasing marginally again to reach 0.3% in April 2014. Lending growth in Austria was still noticeably higher than average lending growth in the euro area , however, where the year-on-year growth rate of loans to nonfinancial corporations has been negative for nearly two years and currently stands at -2.8%.

Broken down by economic sectors, lending to the sectors construction, transport, housing, hotels and restaurants as well as energy supply has risen, whereas lending to the sectors trade and manufacturing has declined.

The growth of borrowing by households – like borrowing by corporates – has been contracting for about two-and-a-half years, with lending to households bottoming out at 0% as early as in May 2013 and resuming a rise to 1.3% in April 2014. Hence, the trend reversal of household borrowing has already taken place and is sustainable.

Since 2013, Austrian companies' financing through bonds has been growing far less dynamically than before: The annual growth rate of net bond issues dropped from 11% in March 2013 to just 2.5% in April 2014. Austrian corporate funding through equity issuance has been largely stagnating since mid-2012. The growth rate of net equity issuance showed its first notable increase again in April 2014, when it reached 1.4%. The funding of Austrian companies includes two additional sources, namely borrowing from foreign banks and intragroup financing. Net borrowing from foreign banks was negative in 2013 at —EUR 1.4 billion, whereas intragroup finance from abroad contributed some EUR 370 million to funding Austrian companies.

Average interest rates on corporate and household loans fell in tandem with key interest rates in the course of 2012 and subsequently remained stable at record low levels. Since 2013, lending rates have not declined further despite further cuts in official interest rates, and rates for

some types of lending in fact exhibited a slight uptrend. Interest rates on new loans to nonfinancial corporations with an initial rate fixation period of up to one year and a volume of up to EUR 1 million have tended to rise slightly since the beginning of 2014, those on loans with a volume of over EUR 1 million have remained virtually unchanged at 1.8%. Interest rates on new loans to households responded differently according to loan category. For example, interest rates on new consumer loans have tended to rise from the beginning of 2013, and interest rates on new housing loans have stagnated at a level of slightly above 2%.

Recent surveys on credit standards among companies and banks suggest that reasons for the weakening loan growth in the past months are related to both supply and demand side factors. The surveyed small and medium-sized enterprises reported a further deterioration of access to bank loans, citing the general economic environment as the main reason. Moreover, the respondents stated banks' credit standards requirements, loan covenant terms and conditions - had remained persistently tight. According to the results of the business cycle survey of the Austrian Institute of Economic Research (WIFO), the share of companies that reported a need for credit but were not granted loans in an amount that fully met this need has again risen perceptibly since fall 2013. The banks responding to the euro area-wide Bank Lending Survey indicated that they had not tightened terms for lending to small and mediumsized enterprises since mid-2013. However, companies are likely to still feel the impact of the more restrictive terms introduced during the eight preceding quarters.

For more information on lending growth and lending terms in Austria, see 12. Kreditbericht der OeNB (the 12th Lending Report of the OeNB, in German only):

http://www.oenb.at/Publikationen/Volkswirtschaft/Kreditbericht.html

#### The OeNB's Economic Outlook for Austria for 2014 to 2016

According to its June 2014 economic outlook, the Oesterreichische Nationalbank (OeNB) expects the Austrian economy to grow by 1.6% in 2014. Exports will continue to be the main driver of the upswing this year, benefitting from the gradual recovery in the euro area and the moderate improvement in the global economy. Growth will accelerate to 1.9% and 2.1% in 2015 and 2016, respectively, being increasingly supported by domestic demand. HICP inflation is expected to decrease to 1.8% in 2014 and to 1.7% in 2015. According to the forecast, inflation will also remain moderate in 2016 (1.9%). "The prospects for the Austrian economy remain unchanged against the December 2013 outlook," OeNB Governor Ewald Nowotny said. "However, due to the Ukraine-Russia crisis, there are downside risks to the forecast."

#### Global and Euro Area Growth Slowly Picking Up

Global economic activity has been on a moderate uptrend in the first half of 2014. As a result, the need for a further consolidation of public finances has diminished in many countries. In the U.S.A., growth is expected to gain additional momentum despite disappointing first quarter figures caused by unusually cold weather last winter. In Asia, the pace of growth is subdued but steady. The euro area has

emerged from recession and is back on a positive growth path. While the euro area has succeeded in severe domestic and reducing macroeconomic imbalances, persistently unemployment, high private sector debt and restrictive lending continue to be a drag on growth. The anticipated upswing of the Austrian economy is expected to be driven by an improvement in global economic conditions. Economic activity has been particularly lively in Germany, Austria's most important trading partner. Growth is expected to pick up across all of Austria's export markets but is likely to remain below precrisis levels. Austrian exporters' price competitiveness and market shares will remain almost unchanged over the forecast horizon.

### Domestic Demand Also Supports Upturn of Austrian Economy

Private sector investment, which decreased in 2013, will revive on the back of necessary replacement investment, a more favorable sales outlook and improving sentiment. Amid persistent uncertainties, the growth of investment in plant and equipment will remain fairly modest. At the same time, the uptrend in housing investment is expected to continue as funding conditions remain benign and



house prices are still rising. Lower inflation, continuously high employment growth and higher income growth on the back of the economic recovery will contribute to a steady increase in real disposable household income from 2014 to 2016. As a result, real private consumption is expected to grow by 0.7% in 2014, 1.0% in 2015 and 1.4% in 2016.

#### Unemployment Stable at Low Level

In line with developments observed in the past years in the Austrian labor market, both labor supply and employment continue to grow markedly. Therefore, the unemployment rate (Eurostat definition) is expected to remain broadly stable at 4.9% to 5.0% over the forecast horizon. This makes Austria the country with the lowest unemployment rate in the EU.

#### Inflation Remains below 2%

Price growth will continue to lose momentum as energy and commodity prices decline. HICP inflation will consequently drop further, reaching 1.8% in 2014 and 1.7% in 2015. As the economy

picks up steam, inflation is expected to edge up to 1.9% in 2016.

#### Continued Need for Fiscal Consolidation

The Austrian general government budget balance (Maastricht definition) will deteriorate temporarily to -2.5% of GDP in 2014 on account of additional bank support. In 2015 and 2016, the budget balance will improve to -1.2% and -0.7% of GDP, respectively. The government debt ratio (based on ESA 95) is forecast to increase to 79.2% of GDP in 2014, mainly because of the restructuring of Hypo Alpe-Adria Bank International AG. government debt ratio will fall to 75.3% of GDP in 2016. The OeNB expects that additional fiscal consolidation of some 1/4% of GDP will be necessary to enable Austria to meet the structural deficit target of -0.45% of GDP that has been agreed upon with the EU.

http://www.oenb.at/en/Monetary-Policy/Economic-Outlook-for-Austria.html

#### Competitiveness Research Network (CompNet)

Competitiveness Research Network (CompNet) enables cooperation among researcher in all EU national central banks, the ECB as well as from international organizations who are working on competitiveness issues. The overarching objective of the network is to identify what drives the dynamics of competitiveness and productivity in EU countries and firms and to develop appropriate indicators to measure drivers and outcomes of competitiveness. In order to achieve this objective the network adopts a broad perspective, encompassing macro, firm-level and cross-border aspects and exploiting crosscountry information. These two aspects of Comp-Net - its multi-dimensional and cross-country approach to competitiveness - make it a unique forum for research. On the macro level, a range of new indicators have been developed within the network, especially for measuring non-price competitiveness as the research results point towards a great importance of product quality, consumer valuation and changes in global demand structure. For example, a joint research paper by Latvijas Banka and OeNB concludes that non-price factors largely explain market share losses of G7 countries and gains of BRIC

countries (Benkovskis and Wörz 2014). Research also focused on the role of domestic demand conditions, prices and costs and the causality between price competitiveness and external capital flows in the EU. According to the results, changes in capital flows affect cost competitiveness in the short run, while there is no impact from changes in competitiveness on capital flows in the long run. Ongoing research within the network further reveals that many results with respect to price and non-price competitiveness are challenged when the focus shifts from traditional exports to the domestic value added contained in exports.

The most important research output in the past year is the completion of a novel set of indicators based on firm-level data for 11 EU countries. This database spans the time period from 1995 to 2011 and should be extended in the coming year to cover additional countries. In order to respect the confidentiality of firm-level data, the indicators available in the database (firm size, labor productivity and TFP dynamics) were computed in individual national banks and statistical institutions without disclosing raw data by using a standardized program. First re-

sults show that there is a significant heterogeneity in the productivity of firms across sectors and within sectors and confirm a positive relationship between labor productivity and firm size.

Details on the network and links to existing research output can be found here:

http://www.ecb.europa.eu/home/html/researcher\_compnet.en.html

Benkovskis, K. and Wörz, J. (2014) "What Drives the Market Share Changes? Price versus Non-Price Factors" Working Paper Series No. 1640, European Central Bank (ECB), February 2014.

## Forthcoming: 76<sup>th</sup> East Jour Fixe: Using Survey Data For Economic Policy Research – A Focus on CESEE

In recognition that survey data can provide important input for policy analyses, the OeNB will host its 76<sup>th</sup> East Jour Fixe on the topic "Using survey data for economic policy research – a focus on CESEE" on September 12, 2014 at the premises of the Oesterreichische Nationalbank in Vienna.

Over the past few years, more and more survey data about household, firm and banks with a focus on Central, Eastern and Southeastern Europe (CESEE) have become available. The reasons behind this increase are manifold: Survey data provide valuable information on households' financial decision making, i.e. reflecting the counterpart to balance sheets of banks; surveys focus on the economic units that make decisions and can therefore contribute to uncovering heterogeneities that cannot be detected with macroeconomic data; surveys can elicit information which is otherwise not available — for example on individual's expectations and beliefs.

The East Jour Fixe provides a comprehensive overview of surveys in CESEE (e.g. the OeNB Euro Survey, the Life in Transition Survey" and the "Business Environment and Enterprise Performance Survey" by the EBRD and the World Bank, "The Global Financial Inclusion Database" by the World Bank as well as surveys conducted by national central banks in CESEE). From these and other surveys, an exciting literature has emerged that has enriched the economic policy debate, in particular with regard to monetary policy and financial stability. Several experts in the field of survey data have already confirmed their attendance and will present their current research on topics such as euroization and monetary policy, borrowing and lending behavior, institutional aspects and attitudes towards transition, financial inclusion and financial literacy.

## Forthcoming: "Are house prices endangering financial stability and what to do about this?", OeNB Workshop; October 9–10, 2014,

Housing markets in Europe have seen substantial price fluctuations over the last decade. In a number of countries, bursting house price bubbles have seriously damaged macroeconomic and financial stability. More recently, there have been strong house price increases in Germany, Switzerland and Austria. Hence, the Oesterreichische Nationalbank organizes a workshop entitled "Are house prices endangering financial stability and what to do about this?". The workshop will be held on October 9, 2014 (14:00-18:00) and October 10, 2014 (9:00 -12:30). The workshop's objective is to discuss and assess the implications of most recent price increases in European housing markets.

It aims to bring together international experts in the field for an exchange of views. The workshop consists of four sessions, which cover a broad range of relevant topics:

- House price measurement: a prerequisite for assessing upcoming bubbles
- Which factors drive house prices?
- How can we identify house price bubbles before they occur?
- Which instruments are available to contain an upcoming bubble?

#### OeNB Summer School - Applications of multilevel models

The 12th OeNB Summer School is dedicated to multilevel modelling and is going to take place in the period from August 25-29, 2014. Like every year the summer school is hosted by the OeNB at the premises of the Joint Vienna Institute. The course will be given by Paul Lambert, who is a Professor of Sociology at the University of Stirling, where he teaches courses on research methods and on social stratification.

Microeconomic data often features the "clustering" or "hierarchical nesting" of individual cases within larger units of analysis – for example in household surveys, when there may be several individual responses clustered within the same household. Multilevel models are statistical models which provide analytical tools for dealing with data of this nature. They provide a convenient means to undertake regression analysis which takes account of, and can

help to summarise, patterns of clustering. As such multilevel models are an important tool in micro-economic statistics, and are of potential relevance to almost any study using complex microeconomic data.

The summer school will introduce multilevel linear and generalized linear models with an emphasis on research applications. The course will cover the interpretation and specification of multilevel models and their relationship to other tools for recognising clustering within data; the arguments for and against using multilevel models in different analytical scenarios; statistical and estimation strategies relevant to multilevel models; and strategies for dealing with complex data when clustering takes unusual formats. Materials will be illustrated with software training, primarily in the language of Stata, with some use made of R and the specialist package MLwiN.

#### Call for Applications - Visiting Research Program



The Oesterreichische Nationalbank (OeNB) invites applications from external researchers 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 3 and 6 months, but timing is flexible.

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.

Applications for 2015 should be e-mailed to eva.gehringer-wasserbauer@oenb.at by November 1, 2014.

Applicants will be notified of the jury's decision by mid-December 2014. The following round of applications will close on May1, 2015.

See also: http://www.oenb.at/en/About-Us/Research-Promotion/Grants/Visiting-Research-Program.html

# Call for Submission: Franz Weninger Award 2014 for master's and doctoral theses in the field of monetary theory and monetary policy.

The Oesterreichische Nationalbank grants the Franz Weninger Award for outstanding master's and doctoral theses in the field of monetary theory and monetary policy.

The submitted paper shall be a master's or doctoral thesis in the field of monetary theory or monetary policy and shall be approved by an Austrian university. Approval shall be from the academic year (October 1, 2013 – September 30, 2014) immediately preceding the submission date. The author shall be under 35 years of age at the date of submission.

The copy of the master's or doctoral thesis submitted shall be typewritten in either German or English and be be postmarked **September 30, 2014**, at the latest. It must bear the reference "Franz-Weninger-Stipendium/Franz Weninger Award" and

be sent to Oesterreichischen Nationalbank, Otto-Wagner-Platz 3, A-1090 Vienna, Austria.

Along with the thesis, the applicant shall include a brief curriculum vitae and proof of university approval.

The submitted theses shall be assessed by a panel of four qualified OeNB reviewers. The award winners shall be selected by the Governing Board of the Oesterreichische Nationalbank based on the panel's proposal.

For more Information see:

http://www.oenb.at/en/About-Us/Research-Promotion/Grants/Franz-Weninger-Award.html

# Call for Entries: Olga Radzyner Award 2014 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 2014, 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

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.

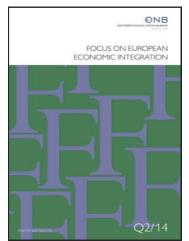
Authors shall send their submissions by postal mail – with the envelope marked "Olga Radzyner Award" – to the Oesterreichische Nationalbank, Foreign Research Division, Otto-Wagner-Platz 3, PO Box 61, 1011 Vienna, Austria. Entries for the 2014 award should arrive at the OeNB by September 19, 2014, at the latest.

For more information, please see <a href="http://www.oenb.at/en/About-Us/Research-Promotion/Grants/Olga-Radzyner-Award.html">http://www.oenb.at/en/About-Us/Research-Promotion/Grants/Olga-Radzyner-Award.html</a> or contact Ms. Eva Gehringer-Wasserbauer in the OeNB's Foreign Research Division either by e-mail <a href="mailto:eva.gehringer-wasserbauer@oenb.at">eva.gehringer-wasserbauer@oenb.at</a> or by phone (+43-1-40420-5205).

#### OeNB Periodical Publications

http://www.oenb.at/en/Publications/Economics.html

<u>List of all Publications since 2001</u> (by staff of the Economic Analysis and Research Section)



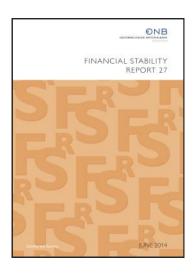
#### Focus on European Economic Integration Q2/14

Finance, Potential Output and the Business Cycle: Empirical Evidence from Selected Advanced and CESEE Economies (Dominik Bernhofer, Octavio Fernández-Amador,

Martin Gächter, Friedrich Sindermann)

How Did CESEE Households Weather the Crisis? Evidence from the OeNB Euro Survey (Majken Corti, Thomas Scheiber)

See more



#### Financial Stability Report 27

The Priorities of Deleveraging in the Euro Area and Austria and Its Implications for CESEE (Judith Eidenberger, Stefan W. Schmitz, Katharina Steiner)

Macrofinancial Developments in Ukraine, Russia and Turkey from an Austrian Financial Stability Perspective (T. Wittenberger, D. Widhalm, M. Lahnsteiner, S. Barisitz)

Capital market development in CESEE countries (Jäger-Gyovai)

Macroprudential Supervision: A Key Lesson from the Financial Crisis (J. Eidenberger,

D. Liebeg, S. Schmitz, R. Seliger, M. Sigmund, K. Steiner, P. Strobl, E. Ubl)

Risk-Bearing Capacity of Households — Linking Micro-Level Data to the Macroprudential Toolkit (N. Albacete, J. Eidenberger, G. Krenn, P. Lindner, M. Sigmund)

See more

#### OeNB Working Papers

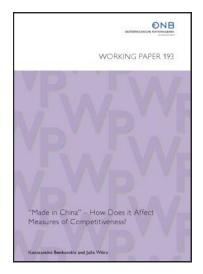
http://www.oenb.at/en/Publications/Economics/Working-Papers.html



#### Do Banks Lend Less in Uncertain Times?

Burkhard Raunig, Johann Scharler, Friedrich Sindermann (Working Paper 194)

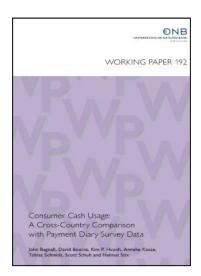
We study the development of bank lending in the U.S. after four large jumps in uncertainty using an event study approach. We find that more liquid banks reduce lending less than banks with smaller liquidity ratios after a surge in uncertainty. Lending by smaller banks is also less responsive to increases in uncertainty. Banks with a higher capitalization ratio keep up lending to a greater extent, but the effect is only significant for banks which are not part of a multi-bank holding company. This heterogeneity across banks suggests that declines in bank lending following increases in uncertainty are partly the result of a reduced supply of bank loans.



## "Made in China" – How Does it Affect Measures of Competitiveness?

Konstantins Benkovskis, Julia Wörz (Working Paper 193)

We propose a comprehensive analysis of a country's price and non-price competitiveness that accounts for changes in the value added content of trade by combining two datasets — highly disaggregated trade data from UN Comtrade with internationally integrated Supply and Use Tables from the WIOD database. When we focus attention to the traditional measure of gross exports of goods, the analysis shows that advanced economies lost non-price competitiveness relative to emerging economies over the period 1995 to 2011. This picture changes when the fragmentation of production is considered. We find that the relative quality of production from the US, Canada, Germany and the UK when tracing value added in exports remained unchanged or even increased over this period. Likewise, the seemingly unchanged or improving relative quality of Brazil's, Russia's and India's export goods largely arose from outsourcing rather than from improvements in the quality of domestic production. However, gains in Chinese non-price competitiveness remain impressive even after accounting for global value chain integration.



## Consumer Cash Usage: A Cross-Country Comparison with Payment Diary Survey Data

John Bagnall, David Bounie, Kim P. Huynh, Anneke Kosse, Tobias Schmidt, Scott Schuh and Helmut Stix (Working Paper 192)

We measure consumers' use of cash by harmonizing payment diary surveys from seven countries. The seven diary surveys were conducted in 2009 (Canada), 2010 (Australia), 2011 (Austria, France, Germany and the Netherlands), and 2012 (the United States). Our paper finds cross-country differences – for example, the level of cash usage differs across countries. Cash has not disappeared as a payment instrument, especially for low-value transactions. We also find that the use of cash is strongly correlated with transaction size, demographics, and point-of-sale characteristics such as merchant card acceptance and venue.

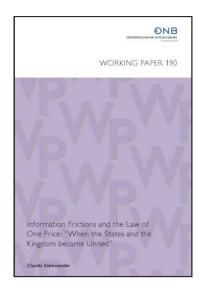


### Systemic Sovereign Risk: Macroeconomic Implications in the Euro Area

Saleem A. Bahaj (Working Paper 191)

What are the macroeconomic implications of changes in sovereign risk premia? In this paper, I use a novel identification strategy coupled with a new dataset for the Euro Area to answer this question. I show that exogenous innovations in sovereign risk premia were an important driver of the economic dynamics of crisis-hit countries, explaining 30-50% of the forecast error of unemployment. I also shed light on the mechanisms through which this occurs. Fluctuations in sovereign risk premia explain 20-40% of the variance of private borrowing costs. Increases in sovereign risk result in substantial capital flight, external adjustment and import compression. In contrast, governments appear not to increase their primary balances in response to increases in sovereign risk. Identifying these causal effects involves isolating a source of fluctuations in sovereign borrowing costs exogenous to the economy in question. I address this problem by relying upon the transmission of country-specific events during the crisis in Europe to the sovereign risk premia in the remainder of the union. I construct a new dataset of critical events in

foreign crisis-hit countries and I measure the impact of these events on yields in the economy of interest at an intraday frequency. An aggregation of foreign events serves as a proxy variable for structural innovations to the yield to identify shocks in a proxy SVAR. I extend this methodology into a Bayesian setting to allow for flexible panel assumptions. A counterfactual analysis is used to remove the impact of foreign events from the bond yields of crisis hit countries: I find that 40-60% of the trough-to-peak moves in bond yields in crisis-hit countries are explained by foreign events, thereby suggesting that the crisis was not purely a function of weak local economic conditions.



## Information Frictions and the Law of One Price: "When the States and the Kingdom became United"

#### Claudia Steinwender (Working Paper 190)

How do information frictions distort international trade? This paper exploits a unique historical experiment to estimate the magnitude of these distortions: the establishment of the transatlantic telegraph connection in 1866. I use a newly collected data set based on historical newspaper records that provides daily data on information flows across the Atlantic together with detailed, daily information on prices and trade flows of cotton. Information frictions result in large and volatile deviations from the Law of One Price. What is more, the elimination of information frictions has real effects: Exports respond to information about foreign demand shocks. Average trade flows increase after the telegraph and become more volatile, providing a more efficient response to demand shocks. I build a model of international trade that can explain the empirical evidence. In the model, exporters use the latest news about a foreign market to forecast expected selling prices when their exports arrive at the destination. Their forecast error is smaller and less volatile the more recent the available information. I estimate the welfare gains from information transmission through the telegraph to be roughly equivalent to those from abolishing a 6% ad valorem tariff.

#### **External Publications by Staff Members**

#### Efficiency wages, staggered wages, and union wage-setting

Markus Knell (2014). Oxford Economic Papers, Oxford Economic Papers, 66(3), 2014, 848-870.

This article studies the role of staggered efficiency wages in a small-scale DSGE model. The simple structure of the model allows for closed-form solutions. The set-up differs from the related literature in that I assume wages are sticky and unions are responsible for wage-setting. The model has the potential to explain why wages depend strongly on past wage levels as it is suggested by empirical data. The presence of efficiency wages increases persistence, however, only for certain parameter constellations. In particular, the elasticity of effort with respect to the wage has to be large. In an extension of the model I show that this is more likely to be the case if wages are the outcome of a bargaining process between unions and firms.



#### A new Model for Balanced Growth and Convergence

#### Achieving Economic Sustainability in CESEE Countries

Nowotny, E., Mooslechner, P. and Ritzberger-Grünwald, D., Edward Elgar Publishing

This topical book addresses the need for emerging economies in Central, Eastern and South-Eastern Europe to find a new, sustainable growth model that fosters continued convergence with the EU without leading to the build-up of new vulnerabilities.

The expert contributions frame the discussion on balanced growth in Europe, deal with the legacy of the old growth model (such as managing disrupted capital flows and deleveraging), and provide insights from the growth strategies of Russia and Turkey as well as

the adjustment process of successful small CESEE countries. They focus on providing a multi-disciplinary assessment, combining the views of policy-makers and academics with those of central and commercial bankers.

This book will prove a thought-provoking read for academics, researchers and students in the fields of economics – particularly international economics – and finance, money and banking. Policy-makers and economists interested in European integration and emerging European economies will also find this book to be an invaluable resource.

See also: <a href="http://www.elgaronline.com/view/9781782548164.xml">http://www.elgaronline.com/view/9781782548164.xml</a>

#### Upcoming and Recent Events

The following events are organized by the OeNB. 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:OeNB.ResearchUpdate@oenb.at">OeNB.ResearchUpdate@oenb.at</a>

#### **Upcoming**

September 12, 2014	Using Survey Data For Economic Policy Research — A Focus On CESEE	
September 18-19, 2014	Using Microdata for Macroprudential Policy Data, Methods, Applications	
September 25-26, 2014	Second CEPR Economic History Symposium	
October 9-10, 2014	Are house prices endangering financial stability and what to do about this? Workshop	
November 24-25, 2014	Conference on European Economic Integration (CEEI): The Rebalancing Challenge in Europe – Perspectives for CESEE	
December 1, 2014	Global Economy Lecture (GEL) with Hélène Rey (London Business School)	
December 15, 2014	Presentation of the 28th Financial Stability Report of the Oesterreichische Nationalbank	

#### Recent

June 17, 2014	Professor Martin Feldstein (Harvard University and National Bureau of Economic Research); The US Economy and the Federal Reserve	
June 12, 2014	A Way to a new price index for Austrian commercial properties (Workshop held in German language)	
May 23, 2014	Friday Seminar: Christophe Chamley (Boston University)	
May 12-13, 2014	42 <sup>nd</sup> Economics Conference of the OeNB	

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

For further details see: www.jvi.org

August 25-29, 2014	OeNB Summer School: Applications of multilevel models, Prof. Paul S. Lambert, University of Stirling, UK
September 15-17, 2014	Cash Circulation and Payment Systems in Austria
October 13-17, 2014	Macro-Financial Stability in Central, Eastern and Southeastern Europe
October 20-24, 2014	Economic and Monetary Integration in Europe
November 17-21, 2014	Monetary and Financial Statistics Collected and Compiled by the ESCB
December 1-2, 2014	Financial Education in Central Banks: Initiatives and Activities

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