

# Research Update

Economic Analysis and Research Department

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Oesterreichische Nationalbank, Economic Analysis and Research Department  
 Postal address: P.O. Box 61, A 1011 Vienna, Austria; [OeNB.ResearchUpdate@oenb.at](mailto:OeNB.ResearchUpdate@oenb.at)

## Editorial



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

### From the spirits that I called, Sir, deliver me

("The Sorcerer's Apprentice" by Goethe)

Happily, our economies have started to grow again. In the first quarter of 2017, all EU countries showed positive growth rates for the first time in years. International institutions (and the OeNB too; see the summary of our recent forecast in this newsletter) responded with upward revisions of their forecasts. Communicating that we were wrong is always a bit difficult, of course. But upward revisions are good news and thus easier to communicate.

The one thing that continues to look not that bright in many countries, including Austria, is wage development. Although labor markets are strong and although investments and exports have been growing, wages are lagging behind. Economists are still looking for explanations for this employment-wage puzzle. The usual suspects are low inflation rates, structural reforms of the labor market, or a significant increase of the service sector including low wage jobs. What is overlooked, though, is that calling for higher wages was a no go in recent years. The argument was (and sometimes still is) that higher wages would put not only jobs at risk, but also competitiveness in general.

Obviously it is difficult to change economic behavior from crisis to normal mode, in which wages grow in line with other indicators, strengthen demand and carry the upswing further. So to borrow from Goethe, let's hope that the spirits that were helpful during the crisis will vanish soon.

Let me conclude with similar wishes for the holiday season: May you find it easy to change from working to holiday mode. Enjoy the summer ahead!

Doris Ritzberger-Grünwald

## 44<sup>th</sup> Economics Conference of the Oesterreichische Nationalbank, in cooperation with SUERF: “The Financial System of the Future” (May 29 and 30)

Modern economies need a functioning financial system. In principle, the financial system has four main functions: providing a payment system, matching borrowers and lenders, enabling people to manage their personal finances across their lifetimes and between generations, and sharing and managing risk. Despite the implementation of a series of reforms in 2010, including enhanced capital requirements for banks, new banking resolution legislation and the centralization of derivatives markets, the question whether the current financial system is fit for the future remains unanswered. Critics claim that the financial system today is still very similar to what it was before the financial crisis started in 2007. So is the financial system fit for the future? Will its current structure allow it to fulfil its main functions? Do we need further structural changes? If so, what kind of changes? Are tighter banking regulation, an increasing role for shadow banking and the EU's project to establish a capital markets union the way to go? What opportunities and potential risks do such changes involve? How will technological developments like fintech and digital money shape the future financial system?

These and other questions related to the future of finance and the financial system were the focus of the OeNB's 44th Economics Conference, held together with SUERF, in Vienna on May 29 and 30. Most presentations and discussions primarily addressed the digitization of money and the financial system.

After opening remarks by Governor Ewald Nowotny, arts and culture minister Thomas Drozda held an opening speech. Digital money and digital banking were the topics of the first session in which Michael Kumhof from the Bank of England talked about a vision of a central bank issuing digital currency, embracing recent innovations stemming from cryptocurrencies. Thomas Puschmann, Head of Swiss FinTech Innovation Lab at the University of Zurich discussed whether digitization would lead us into a future financial system without banks. In a keynote address, Sir Paul Tucker talked about the political economy of central banking in the digital age.



The afternoon sessions of the first day focused on banking and capital markets. While Patricia Jackson, senior advisor at Ernst and Young, gave her views about whether banks or platforms will be the future of financial intermediation, John Kay, Oxford University, tried to debunk exaggerated hopes in new technologies in banking in his talk “Do we have too much financial intermediation?” In the following session, Nikolaus Hautsch from the University of Vienna discussed the costs and benefits of high frequency trading. David Yermack, NYU, talked about the new world of smart contracts and about how they affect corporate governance. At the end of the first conference day, two young economists under the age of 35 received the Klaus Liebscher Award. This year's winners, chosen by a jury from a range of competitive submissions, were





Jean Marie Meyer (London Business School) for his paper “Regulatory Integration of International Capital Markets” and Filippo de Marco (Bocconi University) for the paper “Bank Lending and the European Sovereign Debt Crisis.” The subsequent conference dinner concluded with an address by finance minister Hans Jörg Schelling.

The second day opened with a session on the future of cash and payments. Francois Velde from the Fed Chicago put the discussion about digital innovations in

money and payments into a historical perspective. Helmut Stix, OeNB research economist and senior expert addressed the surprising resilience of cash in a longer-term perspective. The second item on the agenda was a very lively panel discussion with bankers, fintech entrepreneurs and regulators, including high-ranking representatives from Mobile Equity Partners (Reinhold Bierbaumer), McKinsey (Marc Niederkorn), Erste Bank (Thomas Schaffler), N26 bank (Valentin Stalf) and Austria’s Financial Market Authority (Klaus Kumpfmüller). The conference closed with the SUERF annual lecture, given by Erki Liikannen, who talked about whether the post-crisis financial system is more resilient and what remains to be done.

For more information on the Economics Conference, visit:

[https://www.oenb.at/en/Calendar/2017/20170529\\_30\\_44th\\_economics\\_conference.html](https://www.oenb.at/en/Calendar/2017/20170529_30_44th_economics_conference.html)

## 2017 marked by accelerated economic growth and declining unemployment

Austria’s economy is recovering, with both domestic and foreign demand driving the rebound. Having accelerated by 1.4% in 2016, real GDP is projected to grow by 2.2% in 2017, 1.7% in 2018 and 1.6% in 2019. These figures represent upward revisions of 0.7 and 0.2 and 0.1 percentage points, respectively, versus the OeNB’s December 2016 outlook. The inflation rate is expected to rise to 2.0% in 2017 and to reach 1.8% in both 2018 and 2019. The unemployment rate is forecast to decline to 5.4% by 2019 from the historic peak of 6.0% seen in 2016. The general government budget balance will continue to improve to –0.5% of GDP by 2019. In 2016 the general government debt ratio declined for the first time since the outbreak of the global financial and economic crisis; it will continue to decline until 2019.

The global economy, and especially world trade, gained strong momentum in late 2016 and early 2017. Nine years after the global financial and economic crisis hit,

which was followed by a sovereign debt crisis in several euro area countries and by economic recessions in a range of commodity-exporting economies, conditions were gradually normalizing in 2016, both in advanced and emerging economies. In the years ahead, global growth will be driven not only by the United States but also by the euro area. Austria’s export industries stand to benefit from these developments – as well as from the good growth performance of the CESEE economies. In 2017, domestic exports are projected to grow by 4.2% (2016: 1.8%).

The key driver of domestic growth in 2017, in addition to net exports, is the ongoing strength of domestic demand. Private consumption continues to benefit from the income tax reform that took effect in January 2016 and from the high level of employment growth. While these two factors continue to boost real disposable income growth in 2017, higher inflation has a dampening

## Main results of the forecast

### Real GDP growth

Change on previous period in % (seasonally and working day-adjusted)



Source: WIFO, Statics Austria. OeNB June 2017 outlook.

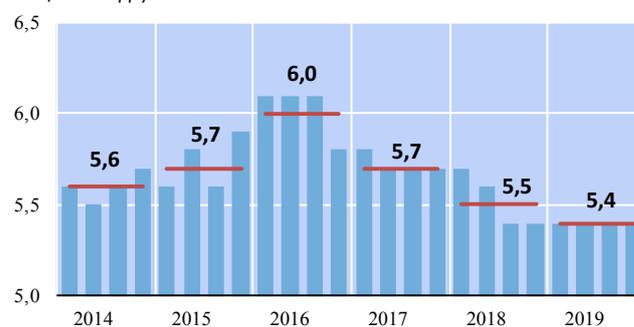
### Harmonised Index of Consumer Prices

Annual change in %



### Unemployment rate

% of labor supply



effect. Real consumption is projected to grow by 1.6% in 2017, accompanied by a slight decline of the saving ratio, to be followed by still fairly robust real consumption growth rates of 1.2% in both 2018 and 2019. Hence, private consumption remains a major pillar of growth throughout the forecast horizon. The investment cycle will peak in 2017. The cycle is driven above all by investment in plant and equipment, with extension investment gradually becoming more relevant than replacement investment. The investment ratio is expected to inch up to 23.2% in 2017 (2016: 22.9%) and to level off thereafter.

The economic recovery fed through to the labor market already in 2016. Businesses were hiring not only in the services sector – like in previous years – but also in the industrial sector, and there was also a significant increase in the number of hours worked. The positive employment development will continue in 2017. As the recovery subsides in 2018 and 2019, the pace of employment growth is projected to decline somewhat, while continuing to be robust by historical standards. Given the high level

of labor demand on account of the economic recovery as well as one-off labor market measures, the unemployment rate will go down again despite the continued strong labor supply growth rate to 5.4% in 2019.

Inflation as measured by the Harmonised Index of Consumer Prices (HICP) is projected to rise to 2.0% in 2017 – driven above all by commodity price changes – compared with 1.0% in 2016. The projections for 2018 indicate a slight decline, to 1.8%. Despite the considerable economic recovery, the domestic drivers of inflation have been generating only moderate inflation pressures.

The general government budget balance will be –0.9%, –0.9% and –0.5% of GDP in 2017, 2018 and 2019, respectively. This improvement essentially reflects the enhanced economic conditions and ongoing refinancing at lower interest rates. Having peaked at 85.5% of GDP, the general government debt ratio declined in 2016, for the first time since the global economic crisis hit. The debt ratio is expected to decrease further and drop to 76% of GDP by 2019.

## **OeNB Friday research seminar series: Secular Stagnation – Theory and Remedies by Jean-Baptiste Michau (Ecole Polytechnique)**

Since 2013 it has been frequently argued that the industrialized countries are caught in a situation of secular stagnation, i.e. in a situation that is characterized by a high propensity to save (a “savings glut”) and a low propensity to invest. The resulting imbalance means that the excessive savings reduce equilibrium real interest rates and possibly also demand, growth and inflation in a possibly persistent manner.

Although the notion of secular stagnation is often used to describe the current situation it is not used in a coherent and unambiguous fashion. In order to study the hypothesis in a systematic way it is helpful to use a model. This has been done by Jean-Baptiste Michau (Ecole Polytechnique), who presented his paper “Secular

Stagnation: Theory and Remedies” in the OeNB’s Friday research seminar series on May 12, 2017. The paper is based on a standard Ramsey model with money to which the author adds three realistic and plausible ingredients: (i) an inflation ceiling; (ii) a preference for wealth; (iii) downward wage rigidity. The author shows that under certain conditions (in particular an excessively low inflation target) there is a unique secular stagnation equilibrium where aggregate demand is permanently depressed. The obvious policy response to secular stagnation is to raise the inflation ceiling. If, however, this is not feasible then the first-best allocation can also be achieved by taxing wealth and subsidizing investment in physical capital.

## **OeNB Friday research seminar series: What’s wrong with macro: why central bank models failed and how to repair them by John Muellbauer (Nuffield College, Oxford University)**

New Keynesian dynamic stochastic general equilibrium models (DSGE) dominated the macroeconomic profession and central bank thinking for the last two decades. The failure of these models to capture interactions of finance and the real economy has been widely recognized since the Global Crisis.

John Muellbauer (Nuffield College, Oxford University) detailed in a research seminar on April 28 his views on the shortcomings of DSGE models. He argued that the unrealistic micro-foundations for the behaviour of households embodied in the ‘rational expectations permanent income’ model of consumption are the key flaw in DSGE models. There is ample evidence based on micro- and macro-data that household horizons tend to be shorter than the permanent income model assumes. Second, unemployment risks and credit constraints vary substantially across households implying that aggregate

behaviour does not follow that of a ‘representative agent’. Third, structural breaks and radical uncertainty further invalidate DSGE models. The evolution of the credit market was in Muellbauer’s opinion the single most important structural change during the recent decades. To understand consumption and macroeconomic fluctuations it is important to include the entire balance sheets of households into the models and not just net worth. Classical life-cycle theory suggests that the ‘housing wealth effect’ on aggregate consumption is small. Muellbauer shows that the availability of home equity loans and the size of down payments determines whether increases in house prices increase (US and UK) or reduce (Germany and Japan) aggregate consumer spending. This suggests that monetary transmission may vary considerably across countries.

## **ANNOUNCEMENT**

### **The OeNB's Anniversary Fund – applications to open in early July for financial stability research projects**

From early June to early October 2017, the OeNB's Anniversary Fund invites funding requests for proposals for future research that match the current focus area defined for the field of economics "financial markets and financial stability."

See <https://www.oenb.at/en/About-Us/Research-Promotion/The-OeNB-Anniversary-Fund/schedule.html> for the exact schedule and more details (especially "Suitable topics") about our current research focus area and <https://www.oenb.at/en/About-Us/Research-Promotion/The-OeNB-Anniversary-Fund/funding-applications.html> for more information about the general conditions of participation and guidance for funding applications.

## **SAVE THE DATE**

We have the pleasure to inform you that the Oesterreichische Nationalbank (OeNB) will host its annual **Conference on European Economic Integration (CEEI) on November 20 and 21, 2017**, at the Vienna Marriott Hotel.

This year's conference topic will be

#### **"A modern take on structural reforms – past and future challenges for CESEE and Europe at large".**

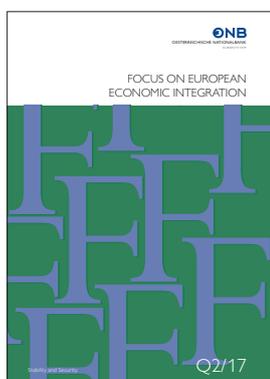
Amid today's formidable challenges, well-designed and effective structural reforms are key to shaping Europe's future and facilitating its return to balanced growth and convergence. The CEEI 2017 will revisit the profound market reforms carried out in Central, Eastern and Southeastern European (CESEE) 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.

The conference language will be English.

More information: [https://www.oenb.at/en/Calendar/2017/20171120\\_21\\_ceedi.html](https://www.oenb.at/en/Calendar/2017/20171120_21_ceedi.html)

## OeNB Periodical Publications

### List of all Publications since 2001 (by staff of the Economic Analysis and Research Section)



#### Focus on European Economic Integration Q2/17

Recent economic developments and outlook

Developments in selected CESEE countries: Solid economic momentum on the back of vivid consumption dynamics

Compiled by Josef Schreiner

Outlook for selected CESEE countries: Investment-driven upswing in CESEE and comeback of growth in Russia

Compiled by Antje Hildebrandt

#### Studies

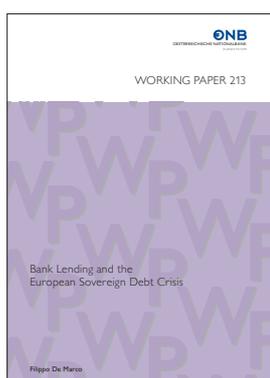
How financially vulnerable are CESEE households? An Austrian perspective on its neighbors

Pirmin Fessler, Emanuel List, Teresa Messner

The relevance of remittance inflows to CESEE countries: evidence from macro- and micro-level data

Anna Katharina Raggl

[Read More](#)



#### Working Papers

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

#### Bank Lending and the European Sovereign Debt Crisis

Filippo De Marco (Working Paper 213, May 29, 2017)

I investigate whether bank exposures to sovereign debt during the European debt crisis affected the real economy. I show that bank marked-to-

market (MTM) losses on sovereign debt led to a credit tightening that had negative real effects on small and young firms, even in countries not under stress. Since

banks do not usually MTM their holdings of sovereign bonds, I explore the transmission channels of sovereign losses on credit supply. I show that sovereign losses reduced bank short-term funding from US money market funds rather than affecting equity or working through alternative channels.

[Read more](#)



## Regulatory Integration of International Capital Markets

Jean-Marie Meier (Working Paper 214, June 1, 2017)

I examine the financial and real effects of regulatory integration of international capital markets using a unique policy plan by the European Union, which creates a common European market for financial services and capital, through, e.g., passporting rights. For identification, I exploit the

bilateral and staggered nature of laws that are passed at the European level but are implemented by national governments. Over its implementation, regulatory integration leads to large increases in external financing, investment and employment for publicly listed firms. These results highlight the importance of regulatory integration of international capital markets for firms' financing decisions and real outcomes.

[Read more](#)

## 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.



See also: [Visiting Research Program 2017/2018](#)

## 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 [OeNB.ResearchUpdate@oenb.at](mailto:OeNB.ResearchUpdate@oenb.at) or take a look at <http://www.oenb.at/en/Calendar.html>

### Upcoming Events

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. (by invitation only!)
September 18, 2017	81 <sup>st</sup> East Jour Fixe: "Nonperforming loans in CESEE: macroeconomic dimension and resolution strategies" (by invitation only!)
October 11, 2017	Global Economy Lecture jointly organized by the Oesterreichische Nationalbank and The Vienna Institute for International Economic Studies, at the OeNB. David Dorn, Professor of Economics, University of Zurich, will give a lecture on "Technology and labor markets" (working title). (by invitation only!)

November 20 and 21, 2017	Conference on European Economic Integration (CEEI): “A modern take on structural reforms – past and future challenges for CESEE and Europe at large” (by invitation only!)
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## Recent Events

April 4, 2017	Friday Seminar: Roger Wattenhofer (ETH Zürich): Bitcoin, Blockchain & Beyond
April 28, 2017	Friday Seminar: John Muellbauer (University of Oxford): Consumption and Micro-economics
May 12, 2017	Friday Seminar: Jean-Baptiste Michau (Ecole Polytechnique, Paris): Secular Stagnation: Theory and Remedies
May 29 and 30, 2017	44 <sup>th</sup> OeNB Economic Conference in cooperation with SUERF: “The Financial System of the Future“ (by invitation only)
June 9, 2017	Friday Seminar: Rama Cont and Eric Schaaning (Imperial College, London): Fire Sales, Indirect contagion and Systemic
June 23, 2017	Friday Seminar: Evren Damar (Bank of Canada): International Banking and Cross-Border Effects of Regulation: Lessons from Canada
June 29 and 30, 2017	25 <sup>th</sup> Anniversary of the Joint Vienna Institute: “Globalization, Technology and Lifelong Learning” (by invitation only!)

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

For further details see: [www.jvi.org](http://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 Accession Process (in cooperation with the Austrian Federal Ministry of Finance and the ECB)
October 9 - 13, 2017	Macro-Financial Stability in Central, Eastern and Southeastern Europe (in cooperation with the ECB)
November 22 – 24, 2017	Financial Translation and Editing: New Skills for New Challenges
November 27 – 29, 2017	Cash Circulation and Payment Systems in Austria