FOCUS ON EUROPEAN ECONOMIC INTEGRATION

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Stability and Security.

This publication presents economic analyses and outlooks as well as analytical studies on macroeconomic and macrofinancial issues with a regional focus on Central, Eastern and Southeastern Europe.

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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 pursue 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 (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 2016 should be e-mailed to *eva.gehringer-wasserbauer@oenb.at* by May 1, 2016.

Applicants will be notified of the jury's decision by mid-June. The following round of applications will close on November 1, 2016.

Recent economic developments and outlook

Developments in selected CESEE countries:

Robust economic expansion in almost all CESEE EU Member States, fragile growth in Turkey and recession in Russia[1,2]

International financial market volatility reveals strengths and weaknesses of the CESEE region

1 Regional overview

The international environment has become more challenging for Central, Eastern and Southeastern Europe (CESEE) over the review period. Market volatility increased against the background of stock market turbulences followed by doubts about the sustainability of high growth in China and heightened uncertainty about the timing and pace of anticipated rate hikes by the Federal Reserve System. These circumstances prompted a broad-based reassessment of risk especially in emerging markets and engendered capital outflows, currency depreciation and asset price deflation in a considerable number of countries. The IMF scaled down its growth forecasts for the world economy and world trade, especially for emerging markets and developing economies in Asia and Latin America. This global perspective revealed strengths and weaknesses in individual CESEE countries.

Most CESEE EU Member States in the country sample covered in this report stand out positively. The above-mentioned developments had hardly any negative impact. Currency developments were broadly stable; equity prices did not post substantial losses, and bond spreads as well as CDS premiums remained by and large compressed in a historical perspective. Several reasons made the countries especially resilient to recent bouts of volatility: While emerging markets around the globe had received substantial capital inflows (a considerable part of which were short-term) in the context of monetary accommodation and quantitative easing in advanced economies, leading to loose financing conditions, CESEE EU Member States were much less affected by this development. To the contrary, large-scale deleveraging was going on in quite a sizeable number of countries of the region in the years after the outbreak of the global financial crisis. Furthermore, the countries have become more resilient during recent years, as they followed a much more balanced growth model than before the crisis, a growth model in which domestic demand has come to play an increasingly important role amid continued (and in some cases substantial) current account surpluses. The fledgling recovery in the euro area and low oil prices have also done their part to support growth in CESEE EU Member States lately.

The GDP growth data for the first half of 2015 reflected all of these developments. Average economic growth in the EU Member States covered in this report came in at a robust 1.2% in the first and 0.7% in the second quarter of 2015 (compared to the previous quarter). With that, output grew somewhat faster than in the second half of 2014.

At 1.3% each in the first two quarters of 2015, growth was also animated in Turkey, but at the same time more fragile, despite some fiscal relaxation ahead of

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Table 1

Real GDP growth

	2013	2014	Q3 2014	Q4 2014	Q1 2015	Q2 2015
	Period-on-period change in %					
Slovakia	1.4	2.4	0.7	0.7	0.8	0.8
Slovenia	−1.1	3.0	0.8	0.4	0.7	0.7
Bulgaria	1.3	1.5	0.4	0.6	0.6	0.5
Croatia	−1.1	−0.4	0.4	0.0	0.2	0.7
Czech Republic	−0.5	2.0	0.5	0.5	2.5	1.1
Hungary	1.5	3.6	0.6	0.7	0.7	0.5
Poland	1.7	3.4	0.9	0.8	1.0	0.9
Romania	3.4	2.8	1.4	0.9	1.4	0.1
Turkey	4.2	2.9	0.4	0.7	1.3	1.3
Russia	1.3	0.6	−0.3	−0.7	−1.6	−2.0
CESEE average[1]	2.0	1.8	0.2	0.0	−0.1	−0.5
Euro area	−0.3	0.9	0.3	0.4	0.5	0.4

Source: Eurostat, national statistical offices.

[1] *Average weighted with GDP at PPP.*

parliamentary elections. Credit growth and inflation stood above the respective targets of the central bank. The country also continued to report a substantial current account deficit that was to a large extent financed by portfolio and short-term capital inflows. On top of that, political uncertainty and geopolitical risks intensified in the review period. Not surprisingly, Turkey was thus considerably affected by recent global market volatility: Between mid-July and mid-October 2015, the Turkish lira depreciated by more than 10% against the euro, CDS premiums and Eurobond spreads increased by around 70 basis points, and equity prices declined by around 9%.

Russia was the only country in the region to report a marked deterioration in already exceptionally weak GDP dynamics, coming in at −1.8% in the first half of 2015. The reasons are well known: mainly the deep slump in oil prices and international sanctions in the context of the conflict in eastern Ukraine. The sanctions also implied that Russia was de facto cut off from international financial markets, which shielded the country from most of the disruptions in financial markets observed during the review period, but also tightened funding conditions for banks and nonfinancial corporations (NFCs). Nevertheless, the ruble depreciated in line with declining oil prices and in August 2015 returned to levels much like those in late 2014.

Looking at the individual components of GDP in a year-on-year comparison, it becomes evident that GDP growth benefited from a powerful development of domestic demand in the review period in nearly all countries of the region (see chart 1). In Croatia, domestic demand also started to contribute positively to growth after an extended period of decline. Russia was the only country to report negative growth contributions of domestic demand, as lower oil prices, currency depreciation, inflation, deteriorating sentiment and reduced access to finance cut into consumption and investment. Bulgaria benefited from strong restocking, whereas consumption and investment contributed negatively to GDP growth.

Private consumption benefited from two factors in particular: Improving labor market conditions and rising real wages in most countries. Unemployment rates

Domestic demand rises against the background of improving labor markets

Chart 1

GDP growth and its main components

Percentage points, GDP growth in % (year on year)

Private consumption   Public consumption   Gross fixed capital formation   Stock changes   Net exports   Statistical discrepancy   ◆ GDP growth
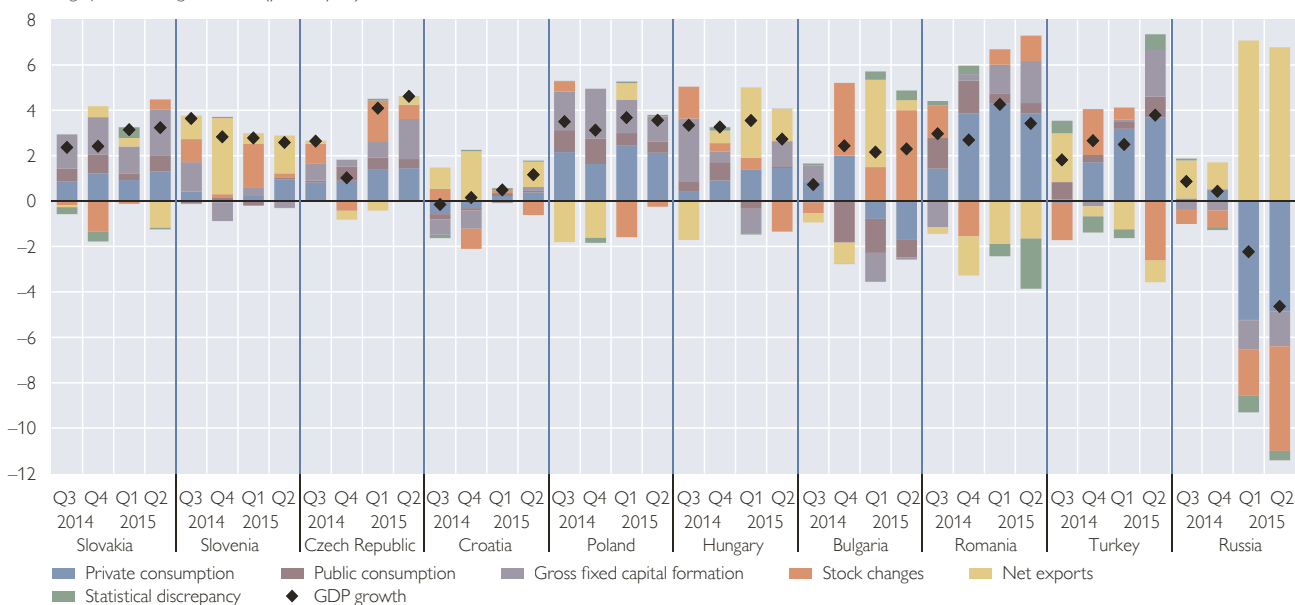
Source: Eurostat, national statistical offices.

have been falling consistently since early 2013 in most CESEE countries, substantially so in some. For example Hungary's unemployment rate in seasonally adjusted terms declined from 11.1% in January 2013 to 6.8% in July 2015, the lowest rate since early 2008. The decrease was also considerable in Bulgaria, Poland, Slovakia, and in Croatia, where the unemployment rate has declined especially strongly since late 2014 because the country has finally managed to overcome its long-lasting recession. The Czech Republic chalked up an unemployment rate of 5% in August 2015, second only to Germany in the EU. At the same time, employment expanded noticeably in most countries, especially so in Hungary and Slovakia. Against this backdrop, nominal wage growth was buoyant, amounting to around 4% in the region on average during the first half of 2015. Bulgaria and Romania achieved growth rates of above 7%. Real wage growth was further boosted by low or even negative inflation rates especially in Central and Southeastern Europe (see also below). All of the above developments had a positive impact on consumer sentiment, which in turn helped domestic demand.

Investment accelerates in several countries

Gross fixed capital formation expanded strongly especially in the Czech Republic, Poland, Romania and Slovakia, where it grew at rates well above those of private consumption in the first half of 2015. In Croatia and Slovenia, by contrast, investment was stagnant. Investment growth decelerated in Hungary, but from an especially high level in 2014.

Several factors can explain the development of investment activity: Investment dynamics have been very moderate in the past years; especially throughout late 2012 and early 2013, capital formation declined in all countries. This created a substantial investment backlog. To quote a figure, while gross fixed capital formation in the CESEE EU Member States of the country sample increased somewhat

in 2014, it still stood some 15% below its peak level in 2008. The need for further investment has risen also because of high and in some cases still rising capacity utilization rates. Capacity utilization reached the highest level since the outbreak of the global financial crisis in several countries in early 2015 (e.g. in Poland, the Czech Republic, Slovakia and Slovenia) and remained elevated also in the second and third quarter. Investment was further spurred by a low-interest environment against the background of an accommodative monetary policy stance at home and abroad as well as by the fledgling recovery and the (very) gradually improving outlook in the euro area, the most important export destination for CESEE EU Member States. Furthermore, the absorption of EU funds fostered public investment. In Slovenia, despite these supportive conditions, the NFC sector is highly indebted, and a considerable number of companies are still deleveraging, which has held back investment demand.

Investment contracted only in Bulgaria and Russia. While in Russia this development was related to the general recession, high corporate debt together with strongly decreasing corporate credit and high nonperforming loan (NPL) ratios held back capital formation in Bulgaria.

Export growth was quite strong in the first half of 2015 throughout most of CESEE and accelerated especially in Bulgaria, Croatia, Russia and Slovakia. While this development was aided by a plummeting exchange rate in Russia, the region generally benefited from the pickup in growth in the euro area. Furthermore, price competitiveness remained on track. Unit labor costs (ULC) in manufacturing (measured in euro) increased less than in the euro area or even declined somewhat in seven of the countries under review. In most cases, productivity growth was strong enough to counter increasing labor costs. Bulgaria, Romania and Turkey, however, lost their competitive edge on the euro area. Labor costs in those three countries increased most powerfully within the CESEE region, far outpacing productivity developments. The loss of competitiveness had a negative impact on exports, especially in Turkey. Export growth in the country has been decelerating since early 2014 and dipped into negative territory in the first quarter of 2015. Both eroding competitiveness and political turmoil in some of Turkey's important trading partners in the Middle East impeded export performance.

At the same time, import growth also picked up in several CESEE countries. However, it remained below export growth in Bulgaria, Croatia, Hungary, Poland, Russia and Slovenia, implying a positive growth contribution of net exports in those countries. Imports grew more strongly than exports in Romania and Turkey, which led to a dampening impact of the external sector on growth, while the impact was neutral in the Czech Republic and Slovakia.

High-frequency activity indicators suggest a broadly steady pace of economic dynamics in the third quarter of 2015 (see chart 2). After bottoming out in fall 2014, industrial production, retail sales and construction activity have displayed a steady upward trend for the region on average. Only very recently has slightly greater volatility been observed. However, it is too early to draw general conclusions from development trends. At the country level, industrial production and retail sales have been rising throughout CESEE, with no country reporting a year-on-year decline in August. Looking forward, headwinds could emerge from possible repercussions of the Volkswagen emissions scandal, however, as several CESEE economies (notably Slovakia and the Czech Republic) are strongly intertwined

Improving competitiveness bolsters export performance

High-frequency and sentiment indicators signal sound dynamics in recent months and in the near future

Chart 2

Leading indicators

Activity indicators (CESEE regional average)

Year-on-year change in %, three-month moving averages

Industrial production – CESEE excl. Russia
Industrial production – Russia
Retail sales – CESEE excl. Russia
Retail sales – Russia
Construction – CESEE excl. Russia
Construction – Russia
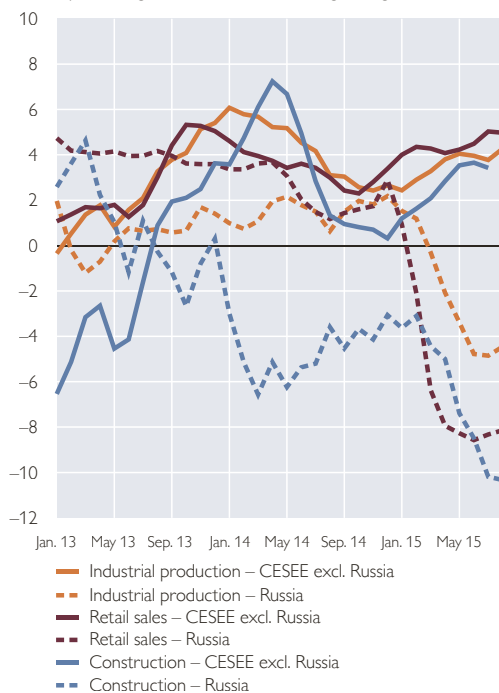
Sentiment indicators

Points

ESI for CESEE EU Member States
(regional average, left-hand scale)
PMI for Turkey (right-hand scale)
PMI for Russia (right-hand scale)
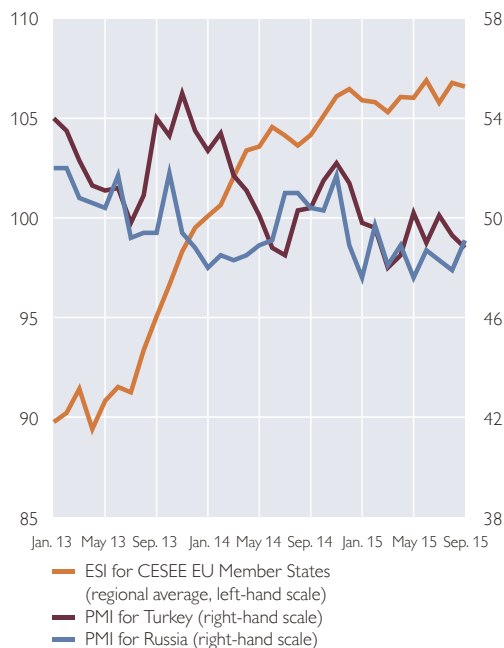
Source: Eurostat, wiiw, European Commission, Markit.

with the German automotive sector. The situation was more mixed when looking at construction activity: While Bulgaria and Slovenia reported declines, construction grew by more than 10% in the Czech Republic, Romania and Slovakia.

A clear outlier is Russia. Activity indicators have plummeted since late 2014 or early 2015 and reached record lows in July 2015: Industrial production declined by 5%, retail sales by 8% and construction activity by more than 10%.

Economic sentiment developed rather well in the CESEE EU Member States during the review period. The European Commission's Economic Sentiment Indicator (ESI) stood steadily at around 106 points (average for the CESEE EU Member States) throughout 2015, the highest level since summer 2007. Especially services and retail trade confidence performed well. The picture is less bright for Russia and Turkey. PMI figures for the two countries declined in late 2014 and have hovered at around or somewhat below 50 (the threshold indicating an expansion) throughout 2015.

No clear regional trends in credit growth…

Domestic credit developments (nominal lending to the nonbank private sector adjusted for exchange rate changes) were rather heterogeneous in the review period (see chart 3). The highest rate of credit growth of close to 20% year on year throughout 2015 was reported for Turkey. While lending growth declined moderately in recent months, it remained noticeably above the central bank's target.

Fairly high credit growth rates also prevailed in Poland and Slovakia. In the Czech Republic, especially corporate credit expanded swiftly, mirroring the strong increase of gross fixed capital formation. Solid credit developments in all three

countries were fueled by favorable demand conditions (rising domestic demand) as well as favorable supply conditions (generally healthy banking sectors with low NPL ratios, high profitability and – in the Czech Republic and Slovakia – deposit overhangs over credit as well as low stocks of loans denominated in foreign currency). Apart from the Czech Republic, Romania reported some improved momentum in credit developments, as household loan growth accelerated. Overall, however, credit to the private sector in Romania still declined by −0.8% in August 2015.

Croatia and Slovenia, in turn, reported broadly stable though negative credit growth rates. In Russia, the credit expansion halved from 12% to 6% throughout the course of the year against the background of the deepening recession. In Bulgaria and Hungary, credit growth rates plunged further into negative territory. In both cases, this was in part related to statistical changes. In Bulgaria, the central bank revoked Corporate Commercial Bank's license for conducting banking activities in November 2014. With this move, loans of the bank (amounting to some BGN 5.2 billion) were no longer included in the official banking statistics (see FEEI 2/2015). This exerted a strongly negative base effect on credit developments in the review period. Even without this effect, however, credit growth would have been sluggish and would have declined to around zero. In Hungary, foreign currency mortgage loans to households were converted into forint loans at an exchange rate below the prevailing market exchange rate in the first quarter of 2015. Hungary has announced that it will continue this conversion policy with the aim of eliminating foreign currency loans in the household sector altogether.

Against the background of the strong appreciation of the Swiss franc following the abandonment of its exchange rate floor to the euro in January, several other countries took steps to convert Swiss franc loans. Croatia has already adopted a legal act stipulating the conversion of household loans denominated in Swiss francs

Chart 3

Growth of credit to the private sector

Year-on-year percentage change, adjusted for exchange rate changes

Source: National central banks.

into euro loans. The costs of this measure are estimated at EUR 1 billion and must be borne by the banking sector. The law has been contested in court by several banks. Discussions are also underway in Poland, where a conversion of Swiss franc mortgage loans into złoty loans is envisaged. The details, however, have not yet been fixed.
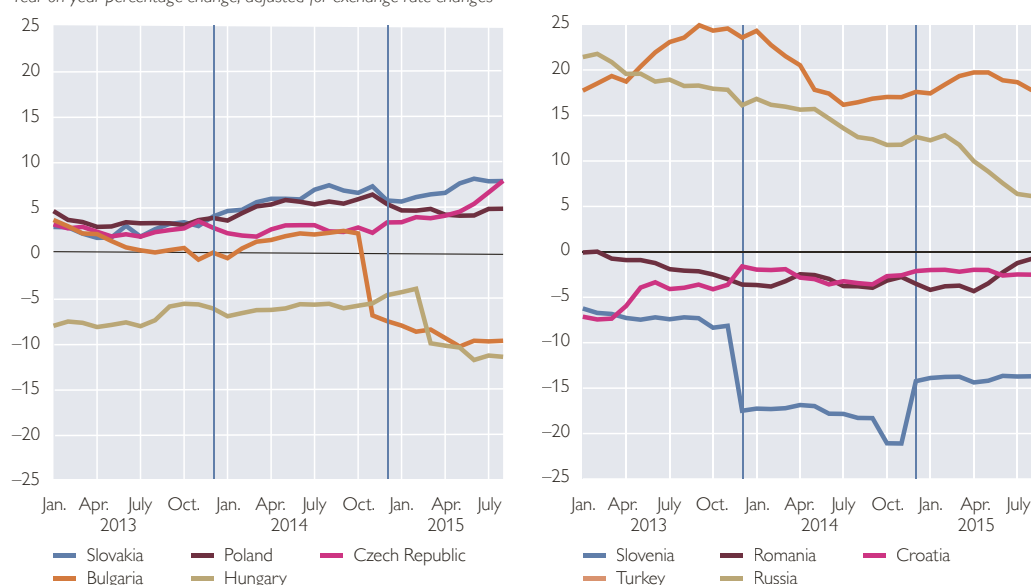
...despite a rather broad-based easing of lending conditions

Despite the rather heterogeneous development of credit aggregates, available lending surveys for the countries of the region draw a quite uniform and largely positive picture of lending conditions.

The most recent CESEE Bank Lending Survey of the European Investment Bank (EIB) notes that lending conditions improved over the first half of 2015 and are expected to improve further over the next six months. Aggregate credit supply conditions eased almost across the board and are expected to gradually ease further. NPLs and regulation, at both the national and international level, remain the most-cited factors constraining credit supply. Demand for loans improved marginally overall, marking the fourth consecutive semester of improvement. Demand grew not only for debt restructuring and working capital, but investment demand also began to improve mildly. Funding conditions are fairly favorable, with all sources of funding performing well. Local bank funding continues to play a predominant role, substituting for decreased intragroup funding. Aggregate NPL figures did not deteriorate further in the review period, signaling that a turning point may now have been reached, while NPL levels remain high and are thus a key concern for the region's banks.

Available country-level bank lending surveys for Bulgaria, the Czech Republic, Hungary, Poland and Romania support this general picture. However, some regional differences in the pace and dimension of easing persist. Once again, Turkey stands apart. Funding conditions were observed to have tightened considerably in the second and third quarter and are expected to continue to do so over the next three months. Credit standards for corporate and mortgage loans also became tighter. While demand for corporate loans decreased noticeably, demand for housing and consumer loans edged up in the third quarter.

Analyzing the operation of international banking groups in the region, the EIB survey found that the CESEE region remains relevant in the strategies of international banking groups. However, banks continue to be selective in their country-by-country strategies. Roughly 55% of the groups surveyed expect to expand operations, while another one-third may reduce operations in the region. Roughly half of the groups signal that they have already been reducing their total exposure to the region, while only just under 30% expect to continue along these lines. The profitability of CESEE operations is gradually recovering. Banks are continuing to reassess the potential of some of the region's markets in light of differing profitability and market-positioning stances.

Declining energy prices hold back price dynamics in the CESEE EU Member States; price rises ease slightly also in Russia and Turkey

Against the background of strong currency depreciation and an import ban on food items from countries that have imposed sanctions on Russia in the context of the Ukraine conflict, inflation in Russia reached 16.9% in March 2015 before declining somewhat to 15.7% in September. The inflation rate was also relatively high in Turkey, partly due to the exchange rate pass-through. Despite abating slightly, price level rises remained above 7% (the central bank's upper bound for its inflation target to be met by December) throughout the year.

Chart 4

HICP inflation and its main drivers

Percentage points, contribution to year-on-year change in HICP; HICP in %
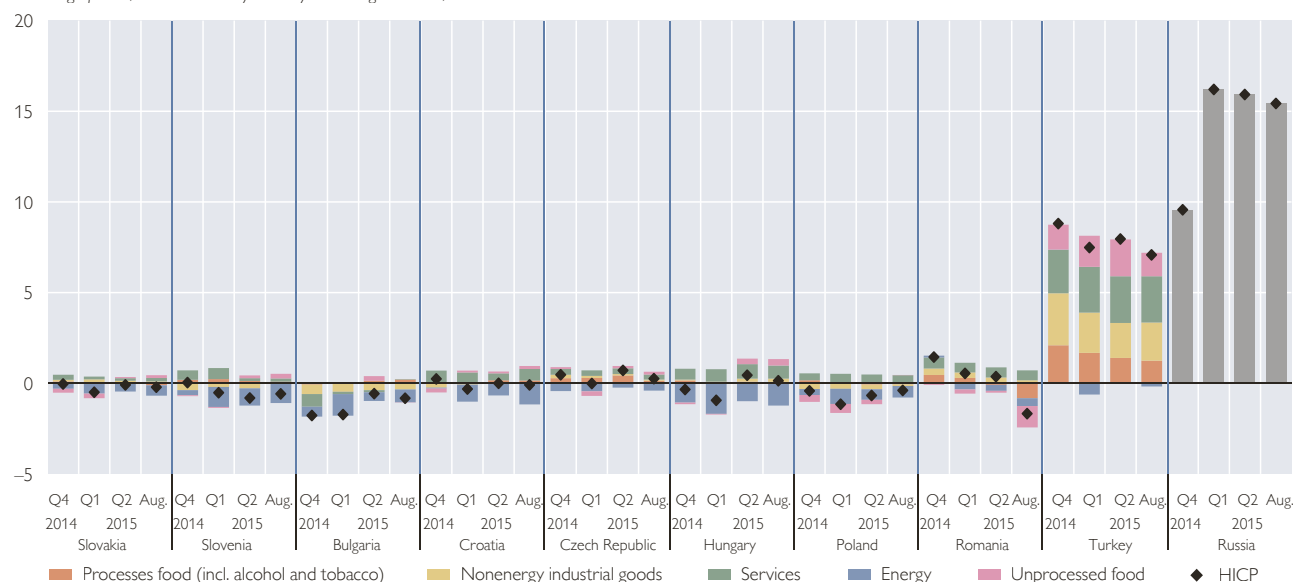
Source: Eurostat.

Note: Russia: CPI. No breakdown according to COICOP available.

The situation was entirely different in the CESEE EU Member States (see chart 4). Average inflation in the country group reached negative territory in December 2014 and a trough in January and February 2015 at –0.7%. After that and in line with developments in the euro area, inflation slowly moved toward zero and reached 0.1% in May 2015. Recent months, however, again brought a reversal of this trend. By August, all CESEE EU Member States with the exception of the Czech Republic and Hungary were again reporting negative inflation rates, bringing average inflation to –0.5%. Part of this development was related to a plunge in inflation in Romania after the coverage of the reduced VAT rate had been broadened. But price pressures also abated further in most other countries.

Among the components of the HICP, it was especially energy that pushed prices down in most recent months. Deflation in the energy component was fueled by low oil prices, which in September 2015 were more than 50% below their level a year earlier. Disinflation pressure from the euro area was another factor causing weak price growth, especially in countries that peg their currencies to the euro. Core inflation rates were either stable or increasing somewhat and were above headline inflation and in positive territory in all countries but Bulgaria and Romania. In both countries, this should not be seen as a reason for major concern. In Bulgaria, core inflation improved from –1.9% in November 2014 to –0.2% in August 2015. In Romania, the development is strongly related to the above-mentioned VAT cut.

Against the backdrop of inflation and deflation developments, the central banks of CESEE countries continued to pursue a policy of monetary accommodation (see chart 5). The Hungarian central bank cut its policy rate by a total of 60 basis points to 1.35% between April 2015 and July 2015. The Romanian central

Further monetary easing in CESEE

Chart 5

Policy rate developments in CESEE

%
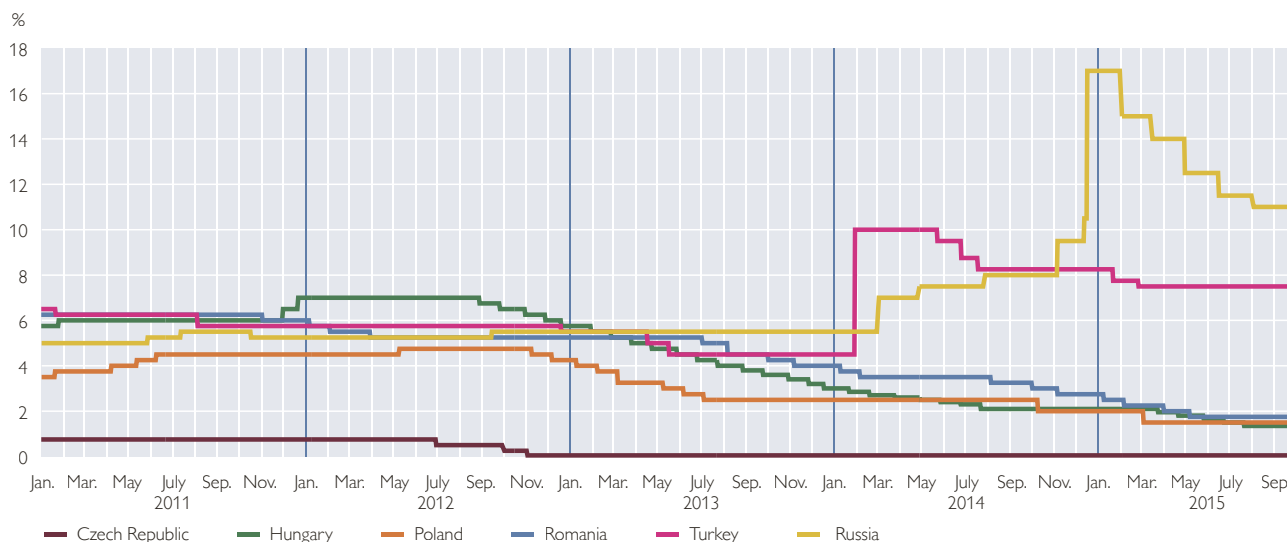
Source: National central banks.

bank reduced its policy rate from 2% to 1.75% in May 2015. Given the marginal easing of inflation and the deepening of the economic contraction, the Central Bank of Russia also decided to decrease the key interest rate from 14% in April 2015 to 11% in August 2015. The Czech Republic's policy rate has been standing at "technically zero" since October 2012. In November 2013, the Czech central bank (CNB) decided to use the exchange rate as an additional instrument to ease monetary conditions and to prevent the exchange rate of the koruna from appreciating to levels of below CZK 27 per EUR 1. In February 2015, the CNB announced that it would continue to intervene in the foreign exchange market at least until the second half of 2016. In July 2015, the CNB intervened by buying EUR 1 billion for the first time since the introduction of the exchange rate ceiling in November 2013. Interventions were also carried out in August, with purchases coming to EUR 3.7 billion. Turkey has kept policy interest rates on hold.

The external position of the CESEE region turns into a small surplus, mainly due to developments in Russia…

The combined current and capital account for the region as a whole improved somewhat in the review period, increasing from a deficit of –0.2% of GDP at the end of 2014 (four-quarter moving sum) to a surplus of 0.6% of GDP in mid-2015 (see chart 6). This development was driven to a large extent by Russia, where currency appreciation had a positive impact on the trade balance. However, the external accounts also improved in most other CESEE countries. These developments were often related to better outcomes in the trade balance (partly bolstered by terms-of-trade effects). But higher inflows via the capital account also played a role, especially in Bulgaria, the Czech Republic and Hungary. In the latter country, the combined current and capital account posted a record surplus of close to 9% of GDP. Some deterioration was reported only for Turkey, where higher outflows of primary (especially investment) income weighed on the external accounts. Turkey was also the only country in the region that continued to post a current account deficit (some 6% of GDP).

Chart 6

Combined current and capital account balance

% of GDP, four-quarter moving sum

Legend: Trade and service balance · Primary income · Secondary income · Capital account · ◆ Combined current and capital account
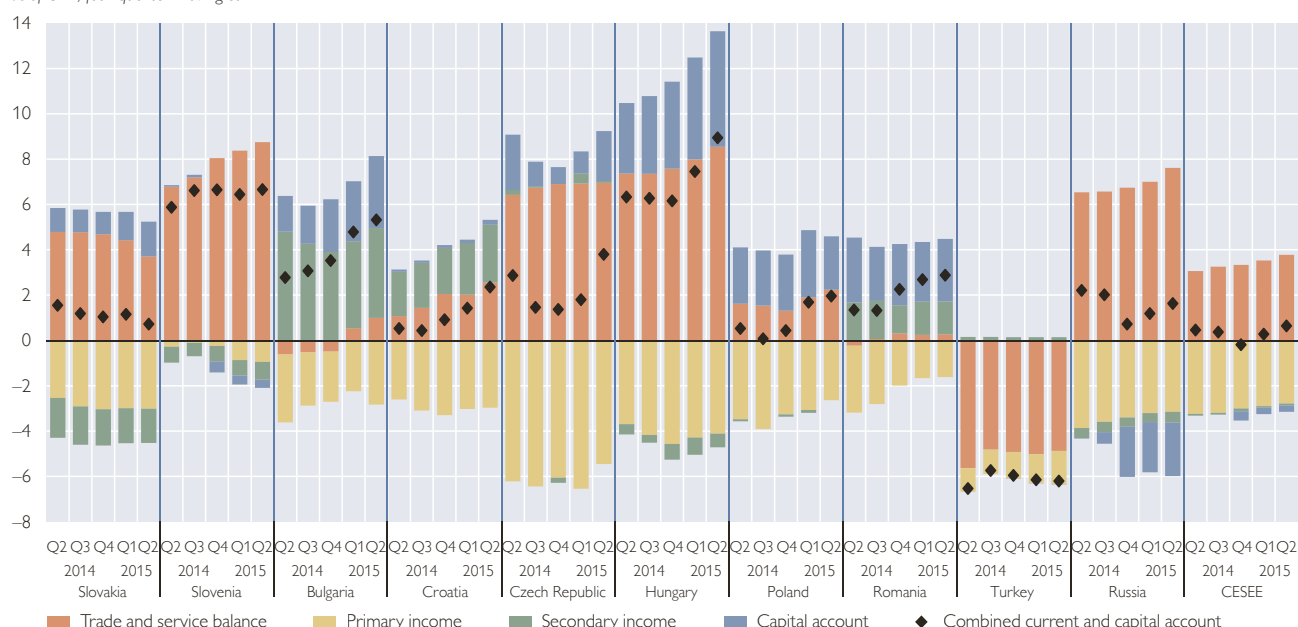
Source: Eurostat, IMF, national central banks.

Net capital flows to the ten CESEE countries as a whole, as recorded in the financial account, deteriorated marginally from –7% of GDP in the fourth quarter of 2014 to –7.5% of GDP in the second quarter of 2015 (four-quarter moving sums; see chart 7). Again, regional developments were mainly driven by Russia. The decline was particularly pronounced in portfolio investment (i.e. outflows in this category rose), but FDI also trended lower. Other investment, however, recovered, preventing even larger capital outflows.

Most of the individual countries of the region posted a deterioration of the financial account, mirroring improvements in the current account. This development was especially pronounced in Hungary, where a strong decline in net portfolio flows caused mostly by bond repayments by the government increased the deficit in the financial account by nearly 5% of GDP between end-2014 and mid-2015. However, the financial account deteriorated by more than 1% of GDP also in the Czech Republic, Slovakia and Turkey. Again, this worsening was often related to lower net portfolio flows. Only Poland, Croatia and Bulgaria displayed higher net capital inflows.

In June 2015, the European Council found that Poland had corrected its excessive deficit by 2014, a year earlier than originally specified. The country's general government deficit amounted to 3.2% of GDP in 2014, above the 3% of GDP reference value. However, Poland was allowed to deduct an estimated 0.4% of GDP as the cost of its systemic pension reform from the headline deficit, bringing the gap below the threshold. With that, Slovenia and Croatia remain the only CESEE EU countries still subject to an excessive deficit procedure (EDP). The target dates for a correction currently stand at 2015 for Slovenia and at 2016 for Croatia. The Slovenian government is targeting a deficit of 2.9% of GDP for 2015, while Croa-

…which is mirrored by higher capital outflows

Budgetary consolidation within the excessive deficit procedure framework remains on track

Chart 7

Financial account balance

% of GDP, four-quarter moving sum
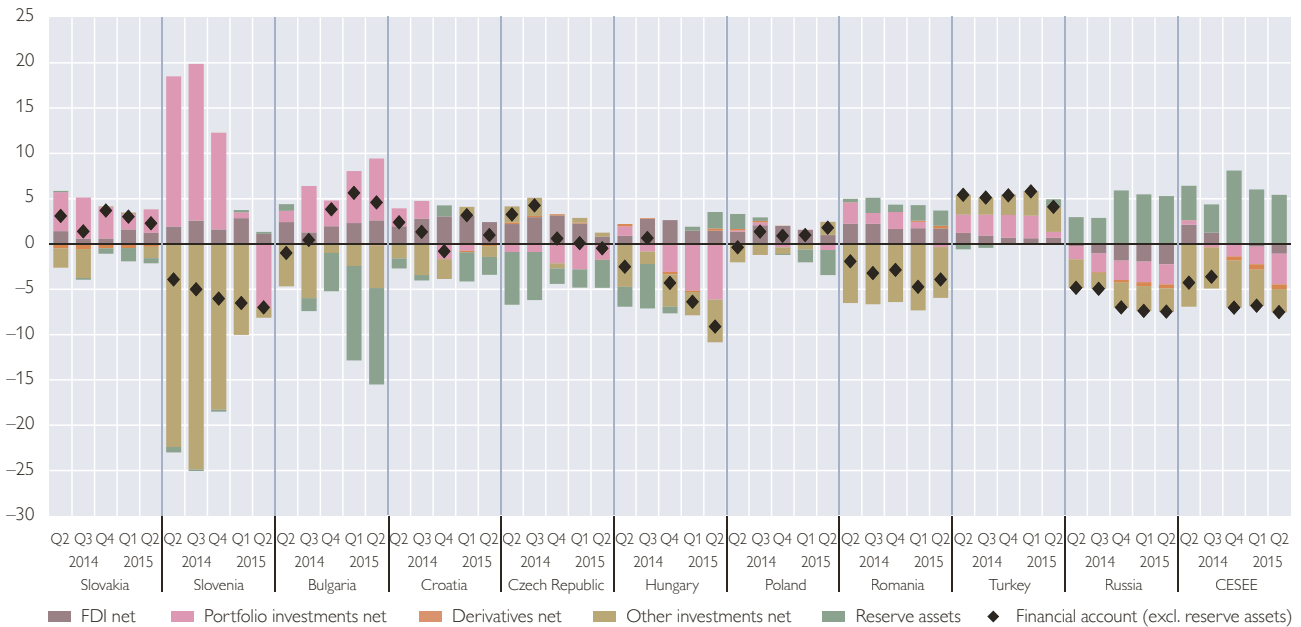
Source: National central banks.

tia will have to make a major consolidation effort next year to come within reach of the 3% threshold. However, Croatia's future fiscal course will presumably become clearer only after parliamentary elections taking place in late fall 2015.

Box 1

Ukraine: nearing the trough?

Economic activity plunged by 15.8% in the first half of 2015, but the downtrend decelerated markedly in the second quarter. The current account posted a marginal surplus in the first half of 2015, mainly on the back of a shrinking trade deficit, as imports continued to fall more strongly than exports. The import contraction was chiefly the result of dropping prices and declining volumes of natural gas imports, subdued domestic demand and the depreciation. While exports were buoyed by the depreciation, they suffered on account of the conflict in eastern Ukraine, deteriorating trade relations with Russia and falling prices for key export goods (grain and steel). Since March 2015, the Ukrainian hryvnia has remained broadly stable against the euro and the U.S. dollar. In late September 2015, the European Commission, Russia and Ukraine agreed on the terms of gas deliveries from Russia to Ukraine for the up-coming winter period. International financial institutions will help finance gas imports.

The National Bank of Ukraine (NBU) reduced its key policy rate in two steps from 30% to 22%, citing disinflationary developments. Inflation peaked at 60.9% in April before gradually declining to 51.9% in September 2015. Thanks to the current account adjustment and official financing from the IMF, the EU, the World Bank and other creditors, the NBU's foreign exchange reserves rose from USD 5.6 billion at end-March 2015 to USD 12.7 billion at end-September. The first review under the IMF's Extended Fund Facility (EFF) was concluded end-July. Talks on the second review were held in late September and early October, but discussions will continue on some outstanding issues regarding in particular reform and policy measures to be taken in 2016.

In late August, the Ukrainian government reached agreement with the creditors' committee on restructuring privately held external sovereign debt in line with the IMF program. The deal contains a 20% nominal haircut and a four-year maturity extension, as well as GDP-linked warrants to compensate bondholders for losses if the economy performs well in 2021 to 2040. At a bondholders meeting in mid-October, creditors (more than 75% for each bond) approved the respective debt exchange offer for 13 out of 14 series of bonds. No approval was obtained for the USD 3 billion Eurobond maturing in December 2015, as its holder, the Russian National Welfare Fund, did not take part in the voting. The Russian government regards the bond as official financing and has not accepted the restructuring terms. It is still unclear how the IMF would handle a Ukrainian default on this bond.

In eastern Ukraine, the cease-fire agreed as part of the Minsk II Agreement in mid-February was frequently violated until August. Yet, the improved observation of the cease-fire since early September and an agreement on the withdrawal of weapons indicate a tentative freezing of the conflict, while efforts to get closer to fully implementing Minsk II go on.

Box 2

Western Balkans[1]: economic performance picks up somewhat in the first half of 2015

In the first half of 2015, economic activity in most Western Balkan countries was more favorable than in 2014, even though political stability in some of these countries deteriorated. In the majority of the countries, domestic demand started to recover, supported mainly by stronger investment activity, while the contribution of private consumption remained fairly modest. In particular, mirroring also reconstruction activities following the spring floods in 2014, real GDP growth in Bosnia and Herzegovina increased to above 2% and 4% year on year in the first and second quarter of 2015, respectively, after having edged up by 1% in 2014. Following a persistent contraction for six quarters, GDP growth in Serbia finally entered positive territory in the second quarter of 2015 (+1.0% year on year) mainly driven by stronger gross fixed capital formation and at the same time by a higher growth contribution of net exports. In Montenegro, real GDP growth accelerated to above 3% in the first half of 2015 (compared to +1.8% in 2014). Remarkably, growth drivers changed substantially, moving from private and public consumption to gross fixed capital formation, which augmented by over 30% year on year in the second quarter of 2015. Booming investments were largely the result of the start of the huge Bar-Boljare highway project. Albania showed somewhat higher growth in the first half of 2015 compared to 2014, driven by investments and net exports while private consumption contracted. By contrast, economic growth weakened marginally in FYR Macedonia, as investment activity lost momentum. Despite stronger private consumption fueled by remittances[2] and wage increases in Kosovo, economic growth slipped to only 0.2% in the first quarter of 2015 (2014: 0.9% year on year) because of lower government spending and subdued investments. For Kosovo, growth figures for the second quarter of 2015 have not been released yet. The debt crisis in neighboring Greece continued to have little impact on the Western Balkan economies and financial sectors during the review period.

Industrial production accelerated in the first half of 2015, especially in Bosnia and Herzegovina, in Serbia, and in Montenegro. The flood-hit countries had suffered from declining industrial output in the first half of 2014. Base effects boosted industrial production also in Montenegro, where electricity, mining and gas output had slumped in the same period of 2014. Conversely, in the remaining countries, in particular in Kosovo, industrial output growth weakened in the first half of 2015. More recent data (wherever available) indicate good industrial performance in the third quarter of 2015 in Bosnia and Herzegovina, Serbia and to some extent also in FYR Macedonia and Montenegro.

Unemployment figures (labor force survey) improved somewhat in the second quarter of 2015 compared to the same period of 2014. In this reference period, Serbia was most successful in bringing down unemployment by almost 3 percentage points to below 18%. However, with unemployment rates between 17% in Albania and around 27% in Bosnia and Herzegovina and in FYR Macedonia, the labor market is still under a severe strain. The same is true for Kosovo, where unemployment stood at around 35% on average in 2014 (no quarterly data are available). Promisingly, employment has increased in all countries, with the strongest gain in Serbia (no quarterly data are available for Kosovo).

All Western Balkan countries are characterized by substantial gaps in the trade balance. These ranged from about 11% of GDP in Serbia to around 40% in Kosovo and Montenegro in the second quarter of 2015. In general, trade imbalances only changed slightly in the first half of 2015 compared to the same period a year before. Mirroring shortfalls in the trade balance, current account deficits are generally substantial, varying between around 5% (Serbia) to above 16% (Montenegro) of GDP, but they narrowed in Albania and Serbia. The only exception is the FYR Macedonia, where the current account moved into slightly positive territory. Many countries, in particular Albania and Kosovo, continue to benefit from a strong inflow of remittances. On the positive side, net FDI inflows to the region stayed robust, making up for part of the external shortfall.

[1] *The Western Balkans comprise the EU candidate countries Albania, FYR Macedonia, Montenegro and Serbia as well as the potential candidate countries Bosnia and Herzegovina, and Kosovo. The designation "Kosovo" is used without prejudice to positions on status and in line with UNSC 1244 and the opinion on the Kosovo Declaration of Independence.*

[2] *According to the Central Bank of Kosovo, remittances surged by 20% in the first quarter of 2015.*

Turning to domestic credits to resident households and nonfinancial corporations (adjusted for exchange rate changes), FYR Macedonia remained the frontrunner, posting growth rates of around 9% year on year in the first half of 2015. Credit growth was fairly dynamic in Kosovo, Montenegro and also in Serbia, where growth fell somewhat in the second quarter of 2015, however. In the remaining countries, the credit expansion was subdued, although liquidity in the banking system remained broadly at a comfortable level. However, high levels of NPLs continued to hold back the credit expansion. On a positive note, some progress has been made in reducing NPLs in most of the Western Balkan countries, notably so in Albania, where the NPL share dropped from almost 23% at the end of 2014 to 20% at the end of the second quarter of 2015. At the same time, however, NPLs accelerated further to a record-high level of close to 23% as of June 2015 in Serbia.

Overall, the countries are still marked by weak or even downward price pressures profiting above all from continued low imported inflation especially on account of low oil prices and in some countries weak consumption. Prices picked up noticeably in the course of the first eight months of 2015 only in Montenegro, rising to around 2% year on year in August 2015 because surging tourism during the summer boosted food and restaurant prices. FYR Macedonia emerged from a prolonged period of deflation in the second quarter of 2015, but price growth fell back into negative territory in the third quarter of 2015. In the first eight months of 2015, deflation persisted in Bosnia and Herzegovina and in Kosovo. Bosnia and Herzegovina even registered deflation of more than 1% in July and August 2015. Both inflation-targeting countries, namely Albania and Serbia, missed their targets (3% ±1 percentage point in Albania, 4.0% ±1.5 percentage points in Serbia) at the lower bound in the first half of 2015. More recently, however, inflation in Albania was within the target range in September (+2.1%). Albania has kept its key policy rate constant at 2% since the beginning of 2015. The Albanian lek remained broadly stable against the euro. The National Bank of Serbia (NBS) cut its key policy rate in five steps from 7% to 4.5% as of mid-October, citing subdued inflationary pressures. The NBS intervened several times in the foreign exchange market, buying euro to ease appreciation pressures.

According to the European Commission (forecast of May 2015[3]), Albania, FYR Macedonia and Serbia are expected to show a lower – but still elevated – fiscal deficit in 2015 than in 2014. Deficits are expected to range between almost 4% and 5% of GDP. After introducing a sizeable austerity package in 2014, Serbia successfully continued to consolidate its public finances and, according to the IMF, will outperform the fiscal target of −5.9% of GDP set for 2015. In Montenegro, however, the highway project is at the heart of the unfavorable development of public finances: The fiscal deficit is forecast to increase by 1.5 percentage points to 4.5% of GDP, and public debt is anticipated to surge from below 55% of GDP in 2014 to almost 62% of GDP in 2015. The IMF expects the budget deficit to amount to 4.9% of GDP in 2015 (2014: 2%) in Bosnia and Herzegovina and to 2.0% of GDP (2014: 2.2%) in Kosovo.

Looking at new developments in relations between the EU and candidate and potential candidate countries, the Stabilisation and Association Agreement with Bosnia and Herzegovina entered into force in June 2015. Negotiations with Serbia started formally in early 2014, but no chapter has been opened yet. Negotiations with Montenegro are ongoing, and two more chapters were opened for negotiations during the last six months. Concerning relations between the IMF and the Western Balkan countries, the IMF approved Kosovo's request for a Stand-By Arrangement (SBA) in July 2015. The main focuses of the 22-month SBA are fiscal consolidation, enhanced financial stability and structural reforms to improve the competitiveness of the Kosovan economy. The SBA arrangement with Bosnia and Herzegovina expired in June 2015. No new arrangement is on the table yet. The fourth review of Albania's 36-month Extended Fund Facility (EEF) arrangement and the disbursement of about EUR 35.9 million were concluded in May 2015. Discussion on the fifth review took place in June 2015. The SBA with Serbia remains on track, and staff-level agreement on the second review was reached in September 2015. Discussion at the IMF Board meeting is scheduled for October. So far, Serbia has treated the arrangement with the IMF as precautionary and has not yet drawn any resources from it.

[3] Most recent forecast available.

2 Slovakia: solid economic growth accelerates

Domestic demand becomes the single driver of economic activity

GDP growth speeded up in the first half of 2015 to reach 3.2% year on year, outpacing not only the expansion of the previous year (2014: 2.4%) but also marking a four-year high. In contrast to 2014, however, this acceleration can be pinpointed exclusively to domestic demand, whose categories all contributed positively to economic growth. In particular, investment dynamics became more robust, with growth quickening to 8.3% year on year in the first half of 2015, up from 5.7% in 2014. Both private and public consumption growth were on the rise in the review period, the former driven by improved labor market conditions and higher real wages and the latter largely reflecting Slovakia's exit from the excessive deficit procedure (EDP). By contrast, the contribution of net exports slipped into negative territory in the first half of 2015, as the steep increase in imports outpaced the expansion of exports; compared to the same period of the previous year, however, the contribution of net exports remained broadly unchanged. Accordingly, the trade surplus declined slightly to an average of 4.2% of GDP. In parallel, the current account surplus shrank to 0.1% of GDP, while the capital account improved to 1.5% of GDP. At the same time, although increasing to 0.8% of GDP year on year in the first half of 2015, net FDI inflows remained weak and became negative in the second quarter of 2015 due to elevated outflows of reinvested earnings.

Downward pressures on prices persist

Declining oil and energy prices kept consumer price growth in marginally negative territory also in the first half of 2015. Accordingly, in spite of the upward pressures in some categories, consumer prices declined by 0.2% in August 2015, while the average inflation rate stayed at −0.3% in the first eight months of 2015. Downward pressures persisted and were recently reinforced by the 3.91% drop in gas prices for households as of September 2015. In the medium term, though, economic growth is likely to have some upward impact on the price level.

Labor market indicators improve but challenges remain

The acceleration of economic activity benefited the Slovak labor market. On the back of favorable developments, also in reducing high youth unemployment, the unemployment rate, which had already been on the decline since the second quarter of 2014, fell to 11.3% in the second quarter and further to 10.8% in August 2015, thus moving down close to pre-crisis levels. At the same time, the employment rate markedly increased by 1.8 percentage points to 62.5% in June 2015. In spite of the increase in minimum wages as of January 2015, real gross wage dynamics slackened somewhat in the first half of 2015. Nevertheless, structural weaknesses, such as the low regional mobility as well as the high share of long-term unemployed, continue to pose major challenges.

Public finances in better shape, gradual consolidation continues

On the back of substantial consolidation efforts in recent years, the fiscal position of the country has improved considerably, with the deficit of the general government declining from nearly 8% of GDP in 2009 to 2.6% of GDP in 2013, enabling Slovakia to exit the EDP. In 2014, the deficit ratio amounted to 2.9%. For 2015, a slightly lower general government deficit of 2.5% of GDP is targeted, reflecting, among other things, some new measures designed to broaden the tax base and fairly good overall revenue developments on the back of reasonably strong GDP growth. On the expenditure front, some relaxation was penciled in (increases in social subsidies, higher wages for public sector employees as well as higher cofinancing of drawings of EU funds). The general government debt is projected to remain broadly unchanged at close to 54% of GDP in 2015 and thus to be slightly below the constitutional debt brake threshold of 55% of GDP.

Table 2

Main economic indicators: Slovakia

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
Year-on-year change of the period total in %									
GDP at constant prices	1.6	1.4	2.4	2.3	2.6	2.4	2.4	3.1	3.2
Private consumption	–0.4	–0.7	2.2	2.8	2.3	1.6	2.2	1.5	2.3
Public consumption	–2.0	2.4	4.4	4.7	5.6	3.3	4.0	1.6	4.1
Gross fixed capital formation	–9.3	–2.7	5.7	2.1	5.3	7.7	6.8	6.6	10.0
Exports of goods and services	9.3	5.2	4.6	12.4	4.9	1.6	0.3	4.4	4.4
Imports of goods and services	2.6	3.8	5.0	12.9	6.7	1.7	–0.2	4.3	6.0
Contribution to GDP growth in percentage points									
Domestic demand	–4.2	0.0	2.8	2.5	3.7	2.7	2.3	2.3	4.5
Net exports of goods and services	5.8	1.4	–0.2	0.2	–1.3	–0.1	0.5	0.4	–1.2
Exports of goods and services	8.0	4.8	4.2	11.5	4.6	1.4	0.3	4.4	4.1
Imports of goods and services	–2.2	–3.3	–4.4	–11.3	–5.9	–1.4	0.2	–4.0	–5.3
Year-on-year change of the period average in %									
Unit labor costs in the whole economy (nominal, per person)	1.0	0.4	2.3	1.3	3.7	2.1	2.2	0.4	0.6
Unit labor costs in manufacturing (nominal, per hour)	–7.1	–2.6	1.6	–4.2	1.1	3.5	5.8	0.0	1.1
Labor productivity in manufacturing (real, per hour)	12.8	8.1	2.7	6.3	4.2	0.4	0.5	5.0	2.3
Labor costs in manufacturing (nominal, per hour)	4.8	5.3	4.4	1.8	5.3	3.9	6.4	5.1	3.4
Producer price index (PPI) in industry	1.9	–1.0	–3.5	–3.4	–3.6	–3.7	–3.5	–3.7	–2.6
Consumer price index (here: HICP)	3.7	1.5	–0.1	–0.1	–0.1	–0.1	–0.1	–0.5	–0.1
EUR per 1 SKK, + = SKK appreciation	..	..	..	..	..	..	..	..	..
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	14.0	14.3	13.2	14.1	13.2	12.9	12.6	12.5	11.3
Employment rate (%, 15–64 years)	59.7	59.9	61.0	60.2	60.7	61.3	61.7	61.9	62.5
Key interest rate per annum (%)	0.9	0.5	0.2	0.3	0.2	0.1	0.1	0.1	0.1
SKK per 1 EUR	..	..	..	..	..	..	..	..	..
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	6.6	5.9	4.9	7.3	6.9	5.4	4.9	5.6	7.5
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	–6.9	–2.7	4.9	0.2	2.5	0.0	4.3	10.4	8.1
Domestic credit of the banking system	2.3	–6.3	7.9	2.1	9.0	10.5	6.7	14.1	11.3
of which: claims on the private sector	6.8	5.3	10.5	5.7	6.2	7.1	5.1	5.7	6.4
claims on households	7.9	8.2	9.8	4.4	4.7	5.1	5.4	5.7	5.7
claims on enterprises	–1.1	–2.9	0.7	1.3	1.5	2.0	–0.3	0.0	0.7
claims on the public sector (net)	–4.5	–11.6	–2.6	–3.5	2.8	3.4	1.7	8.4	4.9
Other assets (net) of the banking system	11.9	21.9	–1.7	5.0	–4.6	–5.1	–6.2	–18.9	–12.0
% of GDP									
General government revenues	36.0	38.4	38.9	..	..	..	..	..	..
General government expenditures	40.1	41.0	41.6	..	..	..	..	..	..
General government balance	–4.2	–2.6	–2.8	..	..	..	..	..	..
Primary balance	–2.3	–0.7	–0.8	..	..	..	..	..	..
Gross public debt	51.9	54.6	53.5	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	47.5	48.0	48.8	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	28.3	30.2	32.9	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Trade balance	3.5	4.6	4.5	6.6	5.9	3.8	1.8	5.1	3.2
Services balance	0.6	0.6	0.2	0.0	0.3	0.3	0.0	0.4	0.2
Primary income	–1.7	–1.8	–3.0	–2.3	–3.4	–3.4	–2.8	–2.1	–3.5
Secondary income	–1.4	–1.8	–1.6	–1.9	–1.7	–1.5	–1.3	–1.6	–1.6
Current account balance	0.9	1.5	0.1	2.5	1.0	–0.7	–2.4	1.8	–1.7
Capital account balance	2.0	1.4	1.0	0.1	0.6	0.6	2.5	1.3	1.7
Foreign direct investment (net)	3.2	1.0	0.6	0.2	–1.7	0.8	3.0	4.5	–3.0
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	74.9	82.1	90.1	90.9	89.1	92.7	90.1	91.1	88.2
Gross official reserves (excluding gold)	0.9	0.9	1.5	1.5	0.9	1.1	1.5	3.2	1.8
Months of imports of goods and services									
Gross official reserves (excluding gold)	0.1	0.1	0.2	0.2	0.1	0.1	0.2	0.4	0.2
EUR million, period total									
GDP at current prices	72,185	73,593	75,215	17,340	18,756	19,846	19,273	17,807	19,316

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

3 Slovenia: economic growth supports banking and fiscal consolidation

Real GDP expanded by 2.7% in the first half of 2015. Net exports remained the major contributor to growth but domestic demand continued to strengthen. Household consumption in particular recovered further, reflecting improving consumer confidence, stronger employment and real wage growth, a good tourist season and some improvement in credit activity. By contrast, fiscal consolidation caused public consumption to contract yet again. Investments stagnated in year-on-year terms during the first half of 2015, dragged down mainly by declining construction activity, while on the other hand, the growth of investment in machinery and equipment was supported by high capacity utilization rates. Growth of credit to the corporate sector has so far showed hardly any improvement, which is partly due to the fact that a sizeable share of Slovenian corporations (in particular SMEs) is still highly leveraged. High-frequency indicators available so far for the third quarter indicated some slowdown in activity despite improved sentiment.

In May 2015, the Council of the European Union endorsed Slovenia's National Reform Programme and Stability Programme, calling for the correction of the excessive deficit in 2015 and a further fiscal adjustment of 0.6% of GDP in 2016. The Council also recommended adoption of the Fiscal Rules Act as well as long-term reforms of the pension, healthcare and long-term care system. Additional labor market reforms were also called for, as were the improvement of banks' portfolio quality, corporate restructuring, improved access to finance for SMEs, progress in privatization and improvements in the legal system.

The authorities continue to target a budget deficit of 2.9% of GDP in 2015. In late September, the government approved a deficit target of 2.2% for 2016 and 1.8% for 2017, pending parliamentary approval. Budget financing has remained on a sound footing. In June 2015, Standard & Poor's revised the rating outlook from stable to positive, citing the improved economic outlook for 2015 to 2018 and Slovenia's strong external performance. Following the upgrade, Slovenia successfully issued a ten-year and an inaugural 30-year government bond, with the sales meeting substantial demand. As a result, Slovenia has already partially prefinanced its public sector funding needs for 2016. In mid-July 2015, parliament finally adopted the Fiscal Rules Act, requiring a balanced structural budget by 2020 and providing for the establishment of a new Fiscal Council, as required by the applicable EU regulation.

Progress in privatization has been mixed recently. On the one hand, the Slovenian Sovereign Holding sold the country's second-largest bank, NKBM, to fund manager Apollo and the EBRD, thus concluding a multiyear process. On the other hand, the biggest and politically most controversial privatization deal of the past few years, that of Telekom Slovenije, was derailed in early August 2015. Bank consolidation progressed further. The country's antitrust authority cleared the merger of Abanka with Banka Celje (both state owned) to create the second-largest bank in Slovenia (i.e. overtaking NKBM), in June 2015. The new bank became operational at the beginning of October 2015. Following the transfer of nonperforming claims from these two banks to the Bank Assets Management Company in December 2014, the share of nonperforming claims declined from 13.1% in November to 11.9% in December. As the stock of nonperforming claims shrank more than that of total claims between December 2014 and July 2015, the NPL share fell further to 11.1%. Nevertheless, credit risk remains a key risk factor for banks and continues to hold back credit growth.

Main economic indicators: Slovenia

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
Year-on-year change of the period total in %									
GDP at constant prices	–2.7	–1.1	3.0	2.3	3.3	3.6	2.8	2.8	2.6
Private consumption	–2.5	–4.1	0.7	1.2	0.9	0.8	–0.1	0.5	1.8
Public consumption	–2.3	–1.5	–0.1	–0.6	0.0	–0.5	0.8	–1.0	0.4
Gross fixed capital formation	–8.8	1.7	3.2	4.6	6.0	6.6	–4.1	1.6	–1.5
Exports of goods and services	0.6	3.1	5.8	4.5	4.4	6.4	7.8	6.1	5.5
Imports of goods and services	–3.7	1.7	4.0	3.1	3.8	5.6	3.6	6.2	3.7
Contribution to GDP growth in percentage points									
Domestic demand	–5.7	–2.1	1.5	1.1	2.7	2.6	–0.6	2.3	0.9
Net exports of goods and services	3.0	1.1	1.6	1.3	0.6	1.0	3.4	0.5	1.7
Exports of goods and services	0.4	2.2	4.4	3.4	3.2	4.8	5.9	4.7	4.1
Imports of goods and services	2.5	–1.2	–2.8	–2.2	–2.6	–3.8	–2.6	–4.3	–2.4
Year-on-year change of the period average in %									
Unit labor costs in the whole economy (nominal, per person)	0.8	0.2	–1.3	–1.5	–2.0	–1.2	–0.3	–0.8	–0.1
Unit labor costs in manufacturing (nominal, per hour)	4.9	3.0	0.0	0.4	0.3	1.2	–2.1	–3.6	–3.3
Labor productivity in manufacturing (real, per hour)	–2.0	–2.3	3.7	2.7	2.4	4.6	5.4	5.6	5.5
Labor costs in manufacturing (nominal, per hour)	2.9	0.6	3.8	3.1	2.7	5.9	3.2	1.9	2.0
Producer price index (PPI) in industry	0.9	0.0	–0.7	–0.8	–1.2	–0.6	–0.1	0.0	0.6
Consumer price index (here: HICP)	2.8	1.9	0.4	0.6	0.8	0.1	0.0	–0.5	–0.8
EUR per 1 SIT, + = SIT appreciation	..	..	..	..	..	..	..	..	..
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	9.0	10.3	9.9	11.0	9.5	9.4	9.7	9.9	9.3
Employment rate (%, 15–64 years)	64.1	63.3	63.9	62.5	64.5	64.6	64.0	63.5	65.5
Key interest rate per annum (%)	0.9	0.5	0.2	0.3	0.2	0.1	0.1	0.1	0.1
SIT per 1 EUR	..	..	..	..	..	..	..	..	..
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	–0.7	0.2	7.8	1.4	4.4	6.4	7.8	5.5	5.0
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	10.6	23.5	45.2	29.1	27.4	31.1	25.5	17.0	4.1
Domestic credit of the banking system	–5.9	–16.4	–32.9	–23.1	–19.7	–19.2	–19.1	–11.0	1.0
of which: claims on the private sector	–11.3	–30.0	–38.4	–21.1	–22.1	–22.6	–15.5	–13.4	–12.6
claims on households	–0.1	–2.3	–2.2	–1.3	–1.2	–1.0	–0.7	–0.1	0.1
claims on enterprises	–11.2	–27.7	–36.2	–19.8	–20.8	–21.6	–14.8	–13.4	–12.7
claims on the public sector (net)	5.4	13.6	5.5	–2.0	2.3	3.4	–3.6	2.4	13.6
Other assets (net) of the banking system	–2.4	–7.6	–4.3	–4.7	–3.3	–5.5	1.5	–0.4	–0.1
% of GDP									
General government revenues	44.4	45.3	44.8	..	..	..	..	..	..
General government expenditures	48.6	60.3	49.8	..	..	..	..	..	..
General government balance	–4.1	–15.0	–5.0	..	..	..	..	..	..
Primary balance	–2.2	–12.4	–1.8	..	..	..	..	..	..
Gross public debt	53.7	70.8	80.8	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	93.7	83.5	73.3	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	30.9	30.0	28.5	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Trade balance	–0.2	2.0	3.2	3.2	3.1	3.2	3.4	3.9	4.4
Services balance	4.2	4.9	4.7	3.7	4.6	6.0	4.2	4.5	4.8
Primary income	–0.8	–0.5	–0.2	0.8	–0.1	–1.2	–0.4	–1.8	–0.4
Secondary income	–0.6	–0.8	–0.7	–1.9	–0.7	–0.7	0.5	–1.8	–1.1
Current account balance	2.6	5.6	7.0	5.8	6.9	7.3	7.8	4.7	7.7
Capital account balance	0.1	0.2	–0.5	0.0	–0.4	0.1	–1.6	0.3	–0.3
Foreign direct investment (net)	1.3	0.1	1.6	–1.3	5.7	3.6	–2.0	4.0	–1.0
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	115.3	112.0	124.2	122.1	125.1	123.9	124.2	125.4	118.8
Gross official reserves (excluding gold)	1.6	1.6	2.0	2.1	2.1	2.0	2.0	2.1	2.1
Months of imports of goods and services									
Gross official reserves (excluding gold)	0.3	0.3	0.3	0.4	0.4	0.3	0.3	0.4	0.4
EUR million, period total									
GDP at current prices	35,988	35,908	37,303	8,663	9,590	9,640	9,410	8,952	9,849

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

4 Bulgaria: export-driven recovery and some confidence-building banking sector reforms

Export performance surprisingly high in the first half of 2015 despite turbulences in neighboring Greece…

With an average annual GDP growth rate of 2.2% in the first half of 2015, the Bulgarian economy gained some momentum compared to 2014. Much of this achievement can be traced back to surprisingly strong exports, which grew by more than 10% on a yearly basis, with a particularly strong showing in the first quarter of 2015. Depreciation of Bulgaria's anchor currency – the euro – and the cyclical upswing in the euro area helped boost exports. It is also a positive signal that the export shares of engineering products and IT services have expanded. The strong export performance is even more astonishing in light of the fact that nearly 7% of Bulgarian exports go to Greece, whose sovereign debt crisis seriously worsened in the first half of 2015. There is even evidence of positive economic spillovers, namely an intensified transfer of bank deposits and corporate headquarters from Greece to Bulgaria before and to some extent also after the imposition of capital controls in Greece in June 2015 (the latter apparently also promoted by substantial differentials in corporate tax rates).

…while domestic demand disappoints and consumer price deflation persists

Domestic demand, on the other hand, was lackluster in the first half of 2015. Despite recently improving consumer confidence indicators, private consumption growth has lost significant pace, given the nonexistent or only hesitant improvement of labor market and lending conditions. Investment activity contracted in the first half of 2015, reflecting comparatively high corporate debt and NPL ratios that weighed on private investment. Consumer price deflation has persisted since August 2013, though it may be gradually easing. The annual HICP dropped by 0.8% in August, after an average deflation rate of 1.2% in the first half of 2015. The continuous deflation can be mainly explained by shrinking prices of energy and nonenergy industrial goods.

Restoring trust in the banking system after the 2014 bank failure

Last year's failure of Bulgaria's fourth-largest bank – Corporate Commercial Bank (CCB) – revealed weaknesses in banking supervision and resolution. The Bulgarian authorities responded with a series of measures in the summer of 2015. In July, parliament adopted the law to implement the EU's Bank Recovery and Resolution Directive. Under the new legislation, guaranteed deposits will be repaid from a new bank restructuring fund (financed by annual fees from all banks) within seven days following a troubled bank's failure to meet its liabilities. Moreover, the newly appointed Governing Council of the Bulgarian National Bank (BNB) launched the formal process of a comprehensive asset quality review of banks, which will most likely last until end-2016. Reform momentum in the banking sector is also supported by rising banking sector profitability and a further increase in the Tier 1 capital adequacy ratio, which has reached a quite strong level of 20%.

Budgetary target for 2015 appears to be within reach

Parliament approved a pension reform in July, including a gradual increase of the retirement age and of social security contributions, the introduction of a minimum retirement age in the security sector and the abrogation of mandatory payments to second-pillar private pension funds. The ministry of finance revised its GDP growth forecast for 2015 sharply upward (from 0.8% in the 2015 State Budget Act) to 2%. At the same time, higher-than-expected revenues produced a small budget surplus in cash terms in the first nine months of 2015; it came to 0.7% of projected GDP, which is a substantial improvement compared to the same period of last year. Thus, there should be sufficient leeway to meet the 2015 general government budget target, which provides for a deficit of 3% of GDP.

Table 4

Main economic indicators: Bulgaria

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
Year-on-year change of the period total in %									
GDP at constant prices	0.2	1.3	1.5	0.2	2.6	0.7	2.4	2.2	2.3
Private consumption	3.3	−1.4	2.7	4.3	2.1	1.5	3.2	−1.1	−2.6
Public consumption	−0.5	2.3	0.1	7.2	6.5	−0.5	−10.2	−7.6	−4.7
Gross fixed capital formation	1.8	0.3	3.4	5.1	6.2	3.5	0.1	−6.8	−0.4
Exports of goods and services	0.8	9.2	−0.1	−2.3	1.5	−3.3	4.2	18.4	6.9
Imports of goods and services	4.5	4.9	1.5	4.8	−0.3	−3.0	5.4	10.9	6.1
Contribution to GDP growth in percentage points									
Domestic demand	2.5	−1.3	2.7	5.2	1.3	1.4	3.3	−1.8	1.8
Net exports of goods and services	−2.3	2.6	−1.1	−5.1	1.2	−0.4	−0.9	3.8	0.4
Exports of goods and services	0.5	5.8	−0.1	−1.5	1.0	−2.4	2.4	12.0	4.5
Imports of goods and services	−2.8	−3.2	−1.0	−3.5	0.2	2.0	−3.4	−8.2	−4.1
Year-on-year change of the period average in %									
Unit labor costs in the whole economy (nominal, per person)	4.8	7.3	0.3	0.5	−1.8	0.9	1.7	3.6	3.3
Unit labor costs in manufacturing (nominal, per hour)	2.7	4.6	0.5	−0.7	1.3	0.2	1.2	5.4	3.8
Labor productivity in manufacturing (real, per hour)	2.1	−0.2	6.2	6.0	6.3	6.5	5.9	1.2	2.7
Labor costs in manufacturing (nominal, per hour)	4.7	4.6	6.7	5.2	7.7	6.7	7.2	6.6	6.6
Producer price index (PPI) in industry	4.4	−1.5	−1.2	−2.8	−1.2	−0.4	−0.4	−1.3	0.0
Consumer price index (here: HICP)	2.4	0.4	−1.6	−1.8	−1.6	−1.2	−1.8	−1.7	−0.6
EUR per 1 BGN, + = BGN appreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	12.4	13.0	11.5	13.1	11.5	10.8	10.7	10.7	10.0
Employment rate (%, 15–64 years)	58.8	59.5	61.1	59.0	61.0	62.8	61.4	61.0	62.4
Key interest rate per annum (%)[1]	..	..	..	..	..	..	..	..	..
BGN per 1 EUR	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	8.4	8.9	1.1	8.3	7.4	7.2	1.1	1.9	2.5
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	16.2	12.8	15.7	6.0	3.4	7.5	9.9	14.0	15.7
Domestic credit of the banking system	10.0	5.9	−4.9	1.9	5.5	0.9	−7.5	−10.1	−12.5
of which: claims on the private sector	6.8	2.9	−6.7	1.3	2.1	2.1	−6.4	−6.8	−8.0
claims on households	−0.5	−0.4	−0.5	0.1	0.1	0.0	−0.5	−0.5	−0.5
claims on enterprises	7.4	3.3	−6.2	1.2	2.1	2.0	−5.9	−6.3	−7.5
claims on the public sector (net)	3.1	3.0	1.8	0.6	3.3	−1.1	−1.1	−3.3	−4.6
Other assets (net) of the banking system	−4.6	−0.6	−0.6	0.5	−1.4	−1.2	−1.3	−2.0	−0.7
% of GDP									
General government revenues	34.0	36.9	36.3	..	..	..	..	..	..
General government expenditures	34.7	37.6	42.1	..	..	..	..	..	..
General government balance	−0.6	−0.8	−5.8	..	..	..	..	..	..
Primary balance	0.1	0.0	−4.9	..	..	..	..	..	..
Gross public debt	17.6	18.0	27.0	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	111.8	113.3	111.6	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	25.7	25.5	24.8	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Trade balance	−9.5	−6.9	−6.4	−10.1	−6.0	−4.5	−6.0	−5.8	−3.6
Services balance	6.6	6.5	5.9	2.2	5.2	13.7	1.5	3.1	4.7
Primary income	−2.4	−3.5	−2.1	−1.9	−2.5	−2.2	−2.0	−2.2	−4.7
Secondary income	5.0	5.7	3.8	8.5	3.5	2.3	2.0	8.2	4.0
Current account balance	−0.3	1.8	1.2	−1.3	0.3	9.4	−4.5	3.3	0.3
Capital account balance	1.3	1.1	2.2	1.5	1.9	1.7	3.6	3.2	4.0
Foreign direct investment (net)	2.6	3.0	2.0	3.1	1.8	−0.9	4.1	4.8	3.0
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	91.1	90.6	97.0	92.9	93.3	94.3	97.0	97.4	86.5
Gross official reserves (excluding gold)	33.5	31.9	35.7	30.6	31.3	33.8	35.7	40.8	40.9
Months of imports of goods and services									
Gross official reserves (excluding gold)	6.0	5.7	6.6	5.4	5.6	6.2	6.6	7.4	7.5
EUR million, period total									
GDP at current prices	41,693	41,912	42,751	8,576	10,354	11,853	11,968	8,876	11,030

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

[1] *Not available in a currency board regime.*

5 Croatia: emerging from long-lasting recession amid elevated risks

Domestic demand strengthens moderately in the first half of 2015

Economic activity in Croatia entered positive territory in the fourth quarter of 2014 and continued to expand throughout the first half of 2015, thus marking the end of a long recession. GDP increased by 0.9% in the first half of 2015 on the back of a modest revival of domestic demand, despite the slightly negative contribution of gross capital formation. The latter was dragged down by a depletion of inventories. Conversely, investment growth turned positive against the background of investment in equipment and plants in the private sector. Construction activity stagnated. Furthermore, with disposable incomes rising partly as a result of tax reform, private consumption growth finally entered positive territory. At the same time, public consumption expanded despite the need for consolidation measures under the requirements of the EDP. Net exports still made a positive contribution, but it was weakened by the acceleration of imports.

Current account remains in surplus amid rising exports and imports

The current account remained in positive territory and reached 1.3% of GDP (four-quarter moving average) in the second quarter of 2015. The improvement was largely generated by the trade balance, as the export expansion outpaced the rise in imports, along with an increase in the surplus of secondary income. On the financing side, net FDI flows declined to reach 0.6% of GDP in the second quarter of 2015. In spite of the modest economic recovery and lower refinancing needs, external debt increased to 113.1% of GDP at the end of June 2015, also as a result of unfavorable exchange rate developments against the U.S. dollar.

Price dynamics remain subdued and credit contracts further

Inflation has hovered around zero since March, with the HICP inflation rate coming to –0.1% on an annual basis in August 2015. The subdued price dynamics were mainly due to falling energy and transport prices, which were partly offset by increasing food prices. At the same time, core inflation picked up slightly as the economy recovered. In the financial sector, the deterioration of asset quality continued, as the share of NPLs increased to 17.3% of total loans in June 2015. This deterioration already weighed on profitability, as the average return on assets dropped slightly to 0.6% in the first half of 2015. In the first six months of 2015, credit growth in the corporate sector (adjusted for exchange rate changes) remained in negative territory, although the pace of the decrease slowed to an average of 3.4% year on year, while household credit activity broadly stagnated. The adoption of a new legal act – effective from 30 September – regulating the forced conversion of Swiss franc loans into euro loans might put the sustained recovery of lending activity at risk in the medium term, as the related costs, which are estimated at EUR 1 billion, must be borne exclusively by the banking sector. As a result, the predominantly foreign-owned banking sector is taking legal action and has already lodged a claim with the Croatian Constitutional Court.

Budget deficits remain stubborn, public sector debt inches up some more

Despite high consolidation pressures in view of the requirements under the EDP to bring the deficit below 3% of GDP by 2016, fiscal imbalances increased in 2014. The general government deficit rose to 5.7% of GDP, thus significantly overshooting the initially set fiscal target of 4.5% of GDP. For 2015, a slightly lower deficit of 5% of GDP is planned, reflecting largely expenditure-led consolidation. However, the European Commission assesses the effectiveness of the measures as broadly short-term, and implementation risks are high. Affected by deficit developments, general government debt is projected to reach 90.5% of GDP by end-2015. In July, Standard & Poor's changed its outlook for Croatia from stable to negative, citing poor policy response to increasing debt and a lack of momentum for reform.

Table 5

Main economic indicators: Croatia

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
	Year-on-year change of the period total in %								
GDP at constant prices	−2.2	−1.1	−0.4	−0.8	−0.7	−0.2	0.2	0.5	1.2
Private consumption	−3.0	−1.8	−0.7	−0.7	−0.6	−1.1	−0.5	0.4	0.6
Public consumption	−1.0	0.3	−1.9	−2.2	−3.4	−1.3	−0.5	0.6	0.4
Gross fixed capital formation	−3.3	1.4	−3.6	−2.1	−4.6	−3.5	−4.1	−0.4	0.8
Exports of goods and services	−0.1	3.1	7.3	11.4	9.6	5.0	5.9	7.2	10.2
Imports of goods and services	−3.0	3.1	4.3	8.5	3.8	5.2	0.3	5.7	6.9
	Contribution to GDP growth in percentage points								
Domestic demand	−3.3	−1.1	−1.7	−1.0	−2.7	−0.9	−2.1	0.4	0.0
Net exports of goods and services	1.2	0.0	1.3	0.1	2.0	0.9	2.2	0.0	1.1
Exports of goods and services	−0.1	1.3	3.1	3.6	3.7	3.1	2.3	2.5	4.3
Imports of goods and services	1.2	−1.3	−1.8	−3.5	−1.7	−2.1	−0.1	−2.5	−3.2
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	−1.2	−2.2	−2.4	−1.2	−2.0	−2.6	−3.8	−0.3	0.7
Unit wage costs in manufacturing (nominal, per person)	2.8	−1.4	−1.6	−2.1	−0.8	−1.0	−2.7	0.5	−0.5
Labor productivity in manufacturing (real, per person)	−1.2	3.1	2.9	3.9	1.1	1.7	4.7	0.3	3.3
Gross wages in manufacturing (nominal, per person)	1.6	1.7	1.1	1.8	0.2	0.3	2.0	0.3	2.8
Producer price index (PPI) in industry	7.0	0.5	−2.7	−2.7	−2.7	−2.9	−2.6	−4.1	−2.8
Consumer price index (here: CPI)	3.3	2.3	0.2	0.1	0.3	0.3	0.2	−0.3	0.0
EUR per 1 HRK, + = HRK appreciation	−1.1	−0.8	−0.7	−0.9	−0.6		−0.5	−0.4	0.3
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	16.3	17.5	17.5	18.8	16.7	15.8	18.5	18.3	15.8
Employment rate (%, 15–64 years)	53.5	52.6	54.6	52.7	54.6	56.9	54.0	53.8	56.2
Key interest rate per annum (%)	6.0	7.0	8.0	6.0	6.0	6.0	6.0	6.0	6.0
HRK per 1 EUR	7.5	7.6	7.6	7.7	7.6	7.6	7.7	7.7	7.6
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	3.6	4.0	3.2	2.8	1.7	3.2	3.2	2.8	4.8
	Contributions to the year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	2.4	12.7	10.9	4.6	6.2	8.1	4.8	7.3	5.3
Domestic credit of the banking system	10.4	−3.1	−1.8	−2.8	−4.3	−4.8	0.0	−1.2	2.1
of which: claims on the private sector	−1.5	−7.0	−2.5	−1.1	−2.0	−2.8	−1.6	−0.8	−0.7
claims on households	−0.2	−1.7	−1.3	−0.8	−0.3	−0.7	−0.4	0.4	0.4
claims on enterprises	−1.4	−5.3	−1.2	−0.4	−1.7	−2.0	−1.2	−1.2	−1.2
claims on the public sector (net)	12.0	3.9	0.7	−1.7	−2.4	−2.0	1.6	−0.4	2.8
Other assets (net) of the banking system	−3.4	−1.8	−1.8	1.1	−0.2	−0.2	−1.7	−3.4	−2.6
	% of GDP								
General government revenues	41.7	42.4	42.3	..	..	..	..	..	..
General government expenditures	47.0	47.7	48.0	..	..	..	..	..	..
General government balance	−5.3	−5.4	−5.7	..	..	..	..	..	..
Primary balance	−1.9	−1.9	−2.2	..	..	..	..	..	..
Gross public debt	69.2	80.6	85.0	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	101.5	102.8	104.2	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	41.0	40.2	40.2	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	−14.3	−15.1	−14.8	−15.8	−17.4	−13.9	−12.1	−17.1	−16.0
Services balance	14.8	15.6	16.8	2.1	16.4	39.6	5.8	3.3	17.1
Primary income	−3.3	−2.1	−3.3	−3.5	−4.2	−4.1	−1.4	−2.3	−3.8
Secondary income	2.8	2.6	2.0	2.0	1.7	2.2	2.2	3.1	2.8
Current account balance	−0.1	1.0	0.8	−15.2	−3.5	23.9	−5.6	−13.1	0.0
Capital account balance	0.1	0.1	0.1	0.0	0.1	0.1	0.3	0.1	0.3
Foreign direct investment (net)	2.7	1.9	3.0	2.7	3.4	2.6	3.5	3.0	0.6
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	103.1	105.7	108.5	108.1	107.6	108.1	108.5	114.2	113.1
Gross official reserves (excluding gold)	25.6	29.7	29.5	28.0	28.6	28.2	29.5	32.9	31.7
	Months of imports of goods and services								
Gross official reserves (excluding gold)	7.5	8.4	8.0	7.7	7.8	7.6	8.0	8.7	8.3
	EUR million, period total								
GDP at current prices	43,944	43,492	43,024	9,800	10,764	11,738	10,721	9,834	10,965

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

6 Czech Republic: strong economic performance driven by domestic demand

Strong GDP benefits from domestic demand and additions to inventories

The Czech economy expanded rapidly in the first half of 2015. GDP growth accelerated to 4.6% in the second quarter of 2015 after reaching 4.1% in the first quarter. High-frequency indicators suggest that the expansion continued unabatedly into the third quarter. Domestic demand again acted as the predominant source of GDP growth. Among all expenditure components, gross fixed capital formation displayed the highest growth rate, being powered by local government activity and a higher-than-expected implementation rate of EU-funded projects. Additions to inventories also contributed positively to growth. Private consumption benefited from improving labor markets and tobacco excise legislation that increased cigarette restocking in the first quarter of 2015. Foreign demand has nevertheless been a strong backbone of the recent economic expansion within the last two quarters, underlining the firm competitive position of the Czech economy. Robust foreign demand in conjunction with the continuation of the exchange rate floor and the improving external environment boosted exports, which accelerated by around 6% in the first half of 2015. The contribution of net exports to GDP growth, however, remained neutral against the background of strong import dynamics due to improving private consumption and investment.

CNB stands ready to fight further deflationary tendencies

On the back of the sharp decline in oil prices and decreasing food prices, inflation was very moderate in the review period, falling nearly to 0% in the first quarter of 2015. In the second quarter, inflation increased to 0.7% before declining again to 0.2% in August 2015. With that, inflation was well below the CNB's tolerance bounds (2% ±1%). Medium-term inflation expectations, however, remained broadly unchanged at around 2%, pointing toward inflation developments that will meet the target inflation rate within the next three years. Nevertheless, in the case of further downward price pressures, the CNB stated that it would stand ready to extend the exchange rate interventions beyond the second half of 2016 and to lower the exchange rate cap to weaker levels on a discretionary basis. In addition, the policy rate is expected to remain at the zero lower bound for the next two years. External factors like the large drop in oil prices and quantitative easing by the ECB led to the first intervention in the foreign exchange market since November 2013. The CNB intervened in July, selling the koruna equivalent of EUR 1 billion and in August, selling EUR 3.7 billion to stop the upward pressure on the koruna.

Improved labor markets spur domestic consumption further

The strong performance of the Czech economy is also visible in pronounced improvements of several key labor market indicators. The employment rate rose to 70.2% in the second quarter of 2015 and the unemployment rate decreased to 5%, the lowest reading in the CESEE EU Member States. Labor demand as measured by the number of vacancies has risen steadily over the past year, exceeding 100,000 in the second quarter of 2015. Real wages grew by 2.7% in the first half of 2015, mainly thanks to improved labor market conditions, wage adjustments in the public sector and an additional 8.2% increase in the minimum wage in early 2015 as well as very low inflation.

Banking sector remains healthy despite muted credit growth

The banking sector remained sound, with strong capital and liquidity buffers. While the share of NPLs increased slightly due to a rise in the NPL ratios of the state-owned export bank, the NPL ratio remained comparatively low. In addition, average nominal credit growth across all sectors gathered some steam and increased to around 4% in the first half of 2015.

Main economic indicators: Czech Republic

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
Year-on-year change of the period total in %									
GDP at constant prices	−0.9	−0.5	2.0	2.2	2.1	2.6	1.0	4.1	4.6
Private consumption	−1.5	0.7	1.5	1.0	1.3	1.6	1.8	2.8	3.0
Public consumption	−1.8	2.3	1.8	1.3	2.3	0.4	3.0	2.8	2.2
Gross fixed capital formation	−3.2	−2.7	2.0	1.1	2.9	3.0	1.1	2.9	7.4
Exports of goods and services	4.3	0.0	8.9	11.8	8.7	8.5	6.7	7.2	6.8
Imports of goods and services	2.7	0.1	9.8	11.6	11.9	8.8	7.5	8.7	7.0
Contribution to GDP growth in percentage points									
Domestic demand	−2.2	−0.5	2.2	1.1	3.7	2.5	1.4	4.4	4.2
Net exports of goods and services	1.3	0.0	−0.2	1.0	−1.5	0.1	−0.4	−0.4	0.4
Exports of goods and services	3.1	0.0	6.8	9.3	6.8	6.4	5.1	6.3	5.7
Imports of goods and services	−1.8	0.0	−7.0	−8.3	−8.3	−6.3	−5.5	−6.8	−5.4
Year-on-year change of the period average in %									
Unit labor costs in the whole economy (nominal, per person)	3.1	0.6	0.1	0.4	0.1	−1.3	1.3	−0.9	−0.6
Unit labor costs in manufacturing (nominal, per hour)	2.9	−0.4	−1.7	−2.0	−4.4	−0.6	0.2	−2.0	−1.4
Labor productivity in manufacturing (real, per hour)	−0.2	3.2	5.0	6.4	7.3	2.3	4.1	4.4	4.3
Labor costs in manufacturing (nominal, per hour)	2.9	2.6	3.2	4.3	2.6	1.7	4.4	2.4	2.8
Producer price index (PPI) in industry	2.4	0.7	1.0	1.2	1.3	1.8	−0.2	−2.0	−1.5
Consumer price index (here: HICP)	3.5	1.4	0.4	0.3	0.2	0.7	0.5	0.0	0.7
EUR per 1 CZK, + = CZK appreciation	−2.2	−3.2	−5.6	−6.8	−5.9	−6.4	−3.4	−0.7	0.2
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	7.1	7.0	6.2	6.9	6.1	6.0	5.8	6.0	5.0
Employment rate (%, 15–64 years)	66.6	67.7	69.0	68.1	68.7	69.3	69.8	69.4	70.2
Key interest rate per annum (%)	0.5	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CZK per 1 EUR	25.1	26.0	27.5	27.4	27.4	27.6	27.6	27.6	27.4
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	4.8	5.8	5.9	5.8	5.0	4.8	5.9	5.6	7.0
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	4.8	11.3	5.8	7.5	5.5	4.6	0.1	0.5	2.2
Domestic credit of the banking system	9.4	5.2	12.1	1.5	4.1	4.9	8.1	8.9	6.8
of which: claims on the private sector	6.1	4.8	5.8	1.9	2.5	2.3	2.9	3.2	4.5
claims on households	3.8	3.1	2.5	1.5	1.4	1.4	1.0	1.1	2.1
claims on enterprises	2.2	1.6	3.3	0.3	1.1	0.9	1.8	2.1	2.4
claims on the public sector (net)	3.3	0.4	6.3	−0.4	1.6	2.5	5.2	5.7	2.3
Other assets (net) of the banking system	−6.5	−5.6	−5.7	−3.2	−4.6	−4.6	−2.3	−3.9	−2.1
% of GDP									
General government revenues	40.5	41.3	40.6	..	..	..	..	..	..
General government expenditures	44.5	42.6	42.6	..	..	..	..	..	..
General government balance	−4.0	−1.3	−1.9	..	..	..	..	..	..
Primary balance	−2.6	0.0	−0.7	..	..	..	..	..	..
Gross public debt	44.7	45.2	42.7	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	55.5	56.3	58.4	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	30.8	30.0	30.5	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Trade balance	3.1	4.1	5.6	7.9	6.4	4.8	3.7	7.7	5.6
Services balance	1.9	1.7	1.3	2.1	1.4	1.1	0.7	1.8	1.9
Primary income	−5.9	−6.1	−6.1	0.1	−11.7	−8.0	−4.3	−1.8	−6.9
Secondary income	−0.7	−0.3	−0.2	−1.6	1.2	−0.9	0.3	1.3	−0.3
Current account balance	−1.6	−0.5	0.6	8.5	−2.7	−3.1	0.4	9.0	0.3
Capital account balance	1.3	2.0	0.8	2.2	0.1	0.2	0.7	3.0	4.7
Foreign direct investment (net)	3.0	−0.2	3.1	3.9	5.5	2.7	0.6	0.2	−0.4
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	60.3	63.5	66.6	62.9	64.8	66.0	66.6	67.2	67.1
Gross official reserves (excluding gold)	20.9	25.8	28.8	26.6	27.6	27.9	28.8	30.9	31.9
Months of imports of goods and services									
Gross official reserves (excluding gold)	3.5	4.4	4.5	4.4	4.5	4.5	4.5	4.8	4.9
EUR million, period total									
GDP at current prices	160,691	156,816	154,722	35,833	38,851	39,536	40,502	37,543	41,046

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

7 Hungary: refining of economic and financial policy tools

In line with previous expectations, GDP growth slowed moderately from 3.6% in 2014 to a still robust 3.1% during the first half of 2015. The slowdown reflects investment growth grinding to a halt following the strong expansion seen in 2014. By contrast, private consumption growth accelerated on the back of strong real income growth, robust consumer confidence and not least the favorable effect on the debt service burden and on precautionary savings of the settlement[3] and conversion of household mortgage loan contracts at the turn of 2014/2015. Export growth expanded at a rate comparable to that in 2014, while import growth slowed down markedly in response to decelerating investment activity. Hence, net real exports contributed strongly to GDP growth. For 2015 as a whole, GDP is expected to post a growth rate of around 3%. High-frequency indicators from the third quarter indicated some slowdown in output growth but still robust sentiment.

Following the settlement and conversion of household mortgage loans, remaining foreign currency consumer and car loans (of the magnitude of nearly EUR 1 billion) will be converted into forint loans at the beginning of 2016. Beginning in mid-December 2015, banks will have to offer their clients conversion at fixed exchange rates of August 19, 2015. The newly agreed EUR/HUF exchange rate basically corresponds to the rate used in the conversion of foreign currency mortgage loans, while the CHF/HUF exchange rate is somewhat higher. This difference will be refunded to clients (representing a rebate of around 10%) and will be financed equally by banks and the government. The clients may explicitly decline the offer within 30 days, otherwise the loans will be converted into forint loans. Like during the conversion at the turn of 2014/2015, the Hungarian central bank (MNB) has sold to banks the foreign exchange needed for the conversion from its reserves at prevailing market exchange rates.

The MNB also introduced regulatory changes in the area of bank supervision over the review period. To reduce banks' short-term external foreign currency funding risks, the foreign exchange funding adequacy ratio (prescribing that long-term foreign currency assets be covered by long-term foreign currency liabilities) will be tightened and a new foreign exchange coverage ratio (limiting on-balance sheet currency mismatch to 15% of total balance sheet assets) will be introduced as of January 2016. To reduce the local currency maturity mismatch on banks' balance sheets, a new mortgage funding adequacy ratio will be introduced from October 2016, requiring banks to refinance at least 15% of their mortgage loans by long-term liabilities backed by household mortgage loans.

In response to very weak inflationary pressure and spare capacity in the economy, the MNB reduced its policy rate from 1.95% to 1.35% between March and July 2015. When it concluded the rate-cutting cycle in July, the MNB suggested that loose monetary conditions would be maintained over a prolonged period. In addition, in early June 2015, the MNB decided to revamp its monetary policy toolkit to help its self-financing program with the aim of reducing external vulnerability. The measure aims at channeling banks' liquid assets from MNB deposits into government securities, enabling a further shift in government financing from foreign (currency) to local (currency) funding at reasonable costs.

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[3] *Retroactive compensation of households for abusive terms in loan contracts. For details, see FEEI Q4/14 and Q2/15.*

Main economic indicators: Hungary

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
Year-on-year change of the period total in %									
GDP at constant prices	–1.5	1.5	3.6	3.7	4.1	3.3	3.3	3.5	2.7
Private consumption	–1.9	–0.1	1.6	1.2	2.4	0.9	1.8	2.6	2.9
Public consumption	–1.3	3.2	2.4	2.1	1.1	2.4	4.1	–1.6	0.4
Gross fixed capital formation	–4.2	5.2	11.7	19.8	18.8	13.2	1.9	–6.7	5.2
Exports of goods and services	–1.5	5.9	8.7	8.2	9.4	7.9	9.4	10.1	7.5
Imports of goods and services	–3.3	5.9	10.0	9.0	10.7	11.0	9.4	7.4	6.5
Contribution to GDP growth in percentage points									
Domestic demand	–2.8	1.1	4.0	3.7	4.4	5.1	2.7	0.4	1.3
Net exports of goods and services	1.4	0.4	–0.4	0.0	–0.4	–1.7	0.6	3.1	1.4
Exports of goods and services	–1.3	5.1	7.8	7.6	8.4	7.0	8.1	9.5	6.9
Imports of goods and services	2.6	–4.7	–8.1	–7.6	–8.8	–8.6	–7.5	–6.4	–5.5
Year-on-year change of the period average in %									
Unit labor costs in the whole economy (nominal, per person)	3.4	1.0	2.7	0.3	–0.5	2.8	1.0	3.0	4.0
Unit labor costs in manufacturing (nominal, per hour)	6.3	2.6	–2.3	1.9	–0.2	–3.9	–4.1	–1.6	0.4
Labor productivity in manufacturing (real, per hour)	0.9	1.1	5.8	1.4	4.0	7.5	8.2	4.7	3.1
Labor costs in manufacturing (nominal, per hour)	7.4	3.6	3.4	3.3	3.8	3.3	3.8	3.0	3.5
Producer price index (PPI) in industry	4.2	0.6	–0.4	1.6	0.3	–0.6	–1.1	–0.3	0.4
Consumer price index (here: HICP)	5.7	1.7	0.0	1.6	0.7	0.4	–0.1	0.1	–0.4
EUR per 1 HUF, + = HUF appreciation	–3.5	–2.6	–3.8	–5.0	–4.8	–3.7	–3.4	–4.6	–3.6
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	11.1	10.3	7.8	8.3	8.1	7.4	7.2	7.8	6.9
Employment rate (%, 15–64 years)	56.7	58.1	61.8	60.6	61.3	62.6	62.6	62.4	63.8
Key interest rate per annum (%)	6.8	4.4	2.4	2.8	2.5	2.1	2.1	2.1	1.8
HUF per 1 EUR	289.3	296.9	308.7	308.1	305.9	312.3	308.5	308.9	305.9
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	–3.3	5.5	5.6	0.9	3.6	6.0	5.6	4.8	3.9
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	23.2	11.7	14.5	4.8	8.3	16.0	7.5	5.1	2.5
Domestic credit of the banking system	–15.7	–11.6	0.6	–4.1	–2.5	–7.5	0.4	–3.4	1.3
of which: claims on the private sector	–15.1	–18.1	–4.9	–4.8	–2.1	–3.1	–0.3	–5.2	–5.6
claims on households	–8.2	–9.6	–3.0	–2.9	–1.5	–1.5	–0.6	–3.7	–3.8
claims on enterprises	–6.8	–8.5	–1.9	–1.9	–0.7	–1.8	0.3	–1.6	–1.8
claims on the public sector (net)	–0.6	6.4	5.5	0.7	–0.4	–4.3	0.7	1.8	6.9
Other assets (net) of the banking system	–5.2	2.0	–3.7	0.2	–2.2	–2.6	–2.3	3.1	0.1
% of GDP									
General government revenues	46.3	47.0	47.4	..	..	..	..	..	..
General government expenditures	48.6	49.5	49.9	..	..	..	..	..	..
General government balance	–2.3	–2.5	–2.5	..	..	..	..	..	..
Primary balance	2.3	2.0	1.5	..	..	..	..	..	..
Gross public debt	78.3	76.8	76.2	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	92.9	90.3	85.1	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	31.5	28.3	25.6	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Trade balance	3.0	3.4	2.5	4.5	1.0	3.0	1.9	5.5	2.9
Services balance	3.8	4.0	4.9	4.4	5.3	6.1	4.0	5.0	5.5
Primary income	–4.3	–2.9	–4.5	–4.3	–5.1	–4.5	–4.1	–3.1	–4.3
Secondary income	–0.8	–0.5	–0.7	–1.1	–0.7	–0.1	–0.8	–1.3	–0.1
Current account balance	1.8	4.0	2.3	3.5	0.4	4.5	1.0	6.1	3.9
Capital account balance	2.6	3.6	3.8	1.5	2.5	3.5	7.1	4.4	4.8
Foreign direct investment (net)	2.1	1.0	2.6	4.3	–5.4	4.4	7.1	–0.9	–5.2
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	129.1	119.1	115.7	119.3	120.1	117.9	115.7	121.3	116.5
Gross official reserves (excluding gold)	34.1	33.5	33.4	35.7	35.4	34.7	33.4	35.3	32.9
Months of imports of goods and services									
Gross official reserves (excluding gold)	5.1	5.0	4.8	5.2	5.2	5.0	4.8	5.1	4.7
EUR million, period total									
GDP at current prices	98,865	100,531	103,221	22,940	25,707	26,530	28,044	23,951	26,768

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

8 Poland: monetary policy remains on hold

Annual GDP growth accelerated to 3.6% in the first half of 2015 from 3.4% in full-year 2014. Total final demand grew by 4.4%, with real exports advancing by 6.6%, contributing 3.2 percentage points to GDP growth, and domestic demand expanding by 3.3%. Both demand components fueled real imports, which grew by 6.1%, implying a positive net export contribution of 0.4% of GDP. Improvements in the terms of trade helped markedly widen the export-import growth differential in euro terms. Thus, the surplus in the goods and services balance increased by 2 percentage points to 3.3% of GDP year on year in the first half of 2015. Coupled with a lower primary income deficit, the current account balance improved by 3.3 percentage points compared to the first half of 2014, turning into a surplus of 1.0% of GDP.

Domestic demand benefited from higher private consumption growth, further albeit lower public consumption growth and strong fixed investment growth in the first half of the year. Fixed investment growth declined from the first to the second quarter, as business investment was hit, while corporate sector profitability and liquidity continued to improve and corporate loan growth remained substantial, albeit slower in the second quarter. In July and August, the annual growth of industrial sales had quickened from the second quarter, as domestic sales gathered pace. Public investment continued to benefit from the easier availability of EU funds; housing investment remained supported by the stable growth of housing loans. Consumer confidence has improved in line with high fixed-investment growth, which has generated persistent employment growth coupled with stable nominal wage growth since early 2014. Moderate deflation of about –1% in the first half of 2015 lifted the real wage sum further and helped hold the real growth of retirement pension payouts stable. As a result, private consumption growth accelerated, while deflation did not trigger visible spending restraint.

In the first half of 2015, strong manufacturing production growth went along with largely stable labor input growth, raising annual productivity gains close to labor cost increases. Thus, the ULC rise remained below that in the euro area. However, as a result of the złoty's appreciation against the euro, price competitiveness vis-à-vis the euro area was slightly weaker in the second quarter of 2015 than a year earlier. In August, annual headline inflation was negative (–0.4% HICP, –0.6% national CPI), while core inflation stood at 0.3% (HICP) and 0.4% (CPI), given falling energy prices. As the Polish Monetary Policy Council (MPC) pursues an inflation target of 2.5% (CPI), it kept the reference rate on hold after cutting it to 1.5% by a total of 100 basis points from September 2014 to March 2015. On October 6, 2015, the MPC again decided to keep the key interest rates unchanged, because it expected the output gap to close gradually and because of external risks.

In 2014, the gross general government deficit amounted to 3.2% of GDP, 0.4% of which were net costs of the systemic pension reform. With the deficit close to the reference value of 3% of GDP and the debt-to-GDP ratio standing below 60%, and given the relevant provisions requiring that these net costs be taken into account when assessing the correction of the excessive deficit, the Council concluded on June 19, 2015 that the excessive deficit had been corrected. Looking forward, the Commission staff's spring forecast projected deficits of 2.8% of GDP in 2015 and 2.6% of GDP in 2016, with the structural balance improving by 0.2% of GDP in each year, after an improvement of 0.9% of GDP in 2014. Commission staff expects the general government debt to fall to 50.8% of GDP by the end of 2016.

Table 8

Main economic indicators: Poland

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
Year-on-year change of the period total in %									
GDP at constant prices	1.8	1.7	3.4	3.9	3.3	3.5	3.1	3.7	3.6
Private consumption	0.9	1.2	3.0	2.5	3.0	3.5	3.1	3.7	3.4
Public consumption	0.2	2.1	4.7	0.4	6.7	5.5	6.1	3.0	2.6
Gross fixed capital formation	–1.5	1.1	9.2	12.0	8.8	9.4	8.3	11.4	6.4
Exports of goods and services	4.3	4.8	5.7	7.9	5.2	3.7	6.0	7.9	5.2
Imports of goods and services	–0.6	1.8	9.1	6.9	11.7	7.8	10.0	6.8	5.4
Contribution to GDP growth in percentage points									
Domestic demand	–0.4	0.4	4.9	3.4	6.0	5.3	4.7	2.9	3.5
Net exports of goods and services	2.1	1.3	–1.4	0.5	–2.7	–1.8	–1.6	0.7	0.0
Exports of goods and services	1.9	2.2	2.6	3.7	2.5	1.8	2.6	3.8	2.5
Imports of goods and services	0.3	–0.8	–4.0	–3.2	–5.2	–3.6	–4.2	–3.1	–2.5
Year-on-year change of the period average in %									
Unit labor costs in the whole economy (nominal, per person)	1.7	1.3	–0.7	–1.7	–0.9	–1.5	1.4	–0.5	0.0
Unit labor costs in manufacturing (nominal, per hour)	1.9	0.2	1.8	–1.8	2.8	3.1	3.1	0.6	0.9
Labor productivity in manufacturing (real, per hour)	2.5	3.2	2.7	6.0	2.9	1.0	1.1	5.3	2.0
Labor costs in manufacturing (nominal, per hour)	4.6	3.4	4.6	4.2	5.8	4.2	4.3	5.9	2.9
Producer price index (PPI) in industry	3.3	–1.2	–1.3	–1.1	–1.0	–1.5	–1.6	–2.4	–1.9
Consumer price index (here: HICP)	3.7	0.8	0.1	0.6	0.3	–0.1	–0.4	–1.2	–0.7
EUR per 1 PLN, + = PLN appreciation	–1.6	–0.3	0.3	–0.7	0.8	1.7	–0.6	–0.2	2.0
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	10.2	10.5	9.1	10.7	9.2	8.3	8.2	8.7	7.5
Employment rate (%, 15–64 years)	59.7	60.0	61.7	60.3	61.3	62.5	62.6	61.9	62.6
Key interest rate per annum (%)	4.6	2.9	2.4	2.5	2.5	2.5	2.0	1.8	1.5
PLN per 1 EUR	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.2	4.1
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	4.5	6.2	8.2	5.2	5.2	7.9	8.2	8.9	8.3
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	10.1	0.3	0.4	–4.3	–1.7	1.2	3.1	5.2	2.5
Domestic credit of the banking system	15.1	9.5	18.2	7.9	7.2	10.1	9.5	8.2	9.5
of which: claims on the private sector	15.6	6.7	11.5	5.2	4.9	6.1	6.9	7.6	7.7
claims on households	7.6	3.0	6.1	2.9	2.8	3.2	3.2	4.2	4.7
claims on enterprises	8.0	3.7	5.4	2.3	2.1	3.0	3.7	3.3	3.0
claims on the public sector (net)	–0.5	2.8	6.7	2.6	2.3	3.9	2.6	0.7	1.9
Other assets (net) of the banking system	–7.6	1.2	–3.6	1.6	–0.2	–3.4	–4.4	–4.5	–3.8
% of GDP									
General government revenues	38.9	38.4	38.8	..	..	..	..	..	..
General government expenditures	42.6	42.4	42.1	..	..	..	..	..	..
General government balance	–3.7	–4.0	–3.3	..	..	..	..	..	..
Primary balance		–1.5	–1.4	..	..	..	..	..	..
Gross public debt	54.0	55.9	50.4	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	43.9	43.9	44.6	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	35.3	35.3	34.7	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Trade balance	–2.1	–0.1	–0.8	–0.8	–0.8	–0.4	–1.1	1.7	0.3
Services balance	1.6	1.9	2.1	2.2	2.4	1.8	1.9	2.2	2.6
Primary income	–3.2	–3.0	–3.2	–2.8	–4.0	–4.2	–2.0	–2.0	–2.2
Secondary income	0.0	–0.1	–0.1	–0.8	–0.1	0.4	0.1	–0.9	0.3
Current account balance	–3.7	–1.3	–2.0	–2.2	–2.5	–2.4	–1.1	0.9	1.0
Capital account balance	2.2	2.3	2.4	1.5	3.6	1.9	2.6	3.6	1.1
Foreign direct investment (net)	1.2	0.8	2.0	4.3	0.5	3.3	0.1	2.4	–1.7
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	72.4	70.4	70.7	69.5	70.8	71.6	70.7	74.0	72.7
Gross official reserves (excluding gold)	20.3	18.7	19.2	17.9	17.6	18.8	19.2	20.9	21.3
Months of imports of goods and services									
Gross official reserves (excluding gold)	5.4	5.1	5.0	4.8	4.7	5.0	5.0	5.5	5.6
EUR million, period total									
GDP at current prices	386,455	396,176	413,067	96,484	100,695	102,301	113,586	99,661	106,101

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

9 Romania: growth is strong, but fiscal policy is procyclical and manufacturing unit labor costs are rising

Higher but less balanced growth

GDP growth accelerated to 3.7% in the first half of 2015, mainly driven by a further speeding up of private consumption growth and a strong recovery of gross fixed capital formation. Private consumption benefited from rising real wages and pensions as well as the expansion of new consumer loans. GDP growth will be further supported by broadening the scope of the 9% VAT rate to all food items and public food services implemented in June, the hike of the minimum wage in July and the 25% health sector wage increase taking effect from October 2015. Construction activity, in particular in the residential sector, but also growth of equipment purchases drove up gross fixed capital formation from a low base. The negative contribution of net exports widened in the first half of 2015, as surging domestic demand spurred import growth that considerably surpassed export growth.

Procyclical fiscal policy ahead of parliamentary elections

After having corrected budget imbalances by following a consolidation path in the years up to 2014, Romania has recently shifted to expansionary fiscal policies ahead of parliamentary elections in December 2016 despite strengthening economic growth. On top of already enacted tax cuts, parliament approved a new fiscal code in September 2015, which includes the reduction of the standard VAT rate from 24% to 20% from January 2016 and to 19% in January 2017. The fiscal policy shift has met with criticism from the IMF, the Banca Naţională a României (BNR) and Romania's fiscal council. The Romanian government expects a budget deficit of 2% of GDP next year (up from an estimated 1.8% of GDP this year), while other observers project a more noticeable increase in the deficit ratio. Overall, fiscal uncertainty remains elevated. Meanwhile, the precautionary EU/IMF support program ended in September 2015 after having been off track since June 2014. Some government members signaled interest in a new agreement, but no official request has been made so far.

Balance of payment position remains sound despite unfavorable ULC developments

External price competitiveness in the manufacturing sector weakened further, as the effective exchange rate remained broadly stable and labor cost increases stayed high, while productivity stagnated in a year-on-year comparison. Labor productivity has suffered from a lack of skilled workers and the low level of investment in recent years.

Nevertheless, the trade balance has not deteriorated substantially so far. On the back of the improvements in both the primary and the secondary income balances, the current account even posted a balanced position in the first half of 2015 compared to a small deficit in the first half of 2014.

Tax cuts fuel deflation

The annual consumer price inflation (CPI) rate turned negative (–1.9% in August 2015), mainly driven by the broadening of the reduced VAT rate that had an impact on the prices of nearly 30% of goods and services in the consumer basket. Against the background of actual and prospective downward pressures on the price level, the Romanian central bank continued to ease monetary policy until May 2015, but has kept the key policy rate unchanged at 1.75% since then. While the central bank noted the continued disinflationary effects from the supply side, it also emphasized the buildup of medium-term inflationary pressures stemming from the fiscal policy stance, the divergence of wage and labor productivity developments as well as from a possible deterioration of foreign investor sentiment.

Table 9

Main economic indicators: Romania

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
	Year-on-year change of the period total in %								
GDP at constant prices	0.6	3.4	2.8	4.1	1.5	3.0	2.7	4.3	3.4
Private consumption	1.1	1.2	4.5	6.4	3.7	4.0	4.2	4.8	5.4
Public consumption	0.6	−6.3	4.7	−2.1	6.7	6.4	6.8	2.6	0.8
Gross fixed capital formation	0.6	−9.2	−3.3	−7.7	−8.6	−1.0	1.4	8.3	9.7
Exports of goods and services	1.7	14.4	8.2	14.6	6.9	8.0	3.6	8.1	8.0
Imports of goods and services	−1.8	4.0	7.7	12.8	6.0	6.8	6.3	11.4	9.9
	Contribution to GDP growth in percentage points								
Domestic demand	−0.5	−0.9	2.7	4.3	−0.5	2.8	3.9	6.6	7.2
Net exports of goods and services	1.1	4.3	0.1	1.0	2.2	−0.3	−1.7	−1.9	−1.6
Exports of goods and services	0.4	6.1	3.2	8.4	4.3	2.1	0.1	4.3	3.5
Imports of goods and services	0.8	−1.8	−3.1	−7.4	−2.1	−2.4	−1.9	−6.2	−5.1
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	3.2	−0.7	0.3	−0.8	3.2	0.8	−2.2	−0.3	−6.4
Unit labor costs in manufacturing (nominal, per hour)	6.4	−0.2	1.1	−3.2	−2.4	3.6	6.5	7.6	9.4
Labor productivity in manufacturing (real, per hour)	0.9	6.2	5.8	10.2	8.7	2.8	2.2	0.6	−0.8
Labor costs in manufacturing (nominal, per hour)	7.3	5.9	7.1	6.7	6.1	6.5	8.8	8.2	8.5
Producer price index (PPI) in industry	5.4	2.1	−0.1	−1.0	0.6	0.3	−0.5	−1.7	−2.3
Consumer price index (here: HICP)	3.4	3.2	1.4	1.3	1.3	1.5	1.4	0.5	0.4
EUR per 1 RON, + = RON appreciation	−4.9	0.9	−0.6	−2.6	−0.6	0.6	0.4	1.1	−0.4
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	7.1	7.4	7.1	7.5	7.0	6.8	7.0	7.6	7.0
Employment rate (%, 15–64 years)	60.2	60.1	61.0	59.5	61.2	62.6	60.8	59.1	62.0
Key interest rate per annum (%)	5.3	4.8	3.3	3.6	3.5	3.3	2.8	2.4	1.8
RON per 1 EUR	4.5	4.4	4.4	4.5	4.4	4.4	4.4	4.5	4.4
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	2.7	8.8	8.4	6.4	5.3	5.1	8.4	6.5	8.8
	Contributions to the year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	5.6	20.7	26.6	12.0	14.1	10.9	11.9	8.8	6.0
Domestic credit of the banking system	11.5	−5.4	−10.9	−6.5	−7.9	−6.3	−5.1	−1.4	3.1
of which: claims on the private sector	8.3	−1.9	−6.3	−2.6	−3.7	−3.9	−2.7	−2.8	0.1
claims on households	1.2	−0.5	−1.1	−0.5	−1.2	−1.1	−0.5	0.0	1.5
claims on enterprises	7.1	−1.4	−5.2	−2.1	−2.5	−2.8	−2.3	−2.8	−1.4
claims on the public sector (net)	3.2	−3.5	−4.7	−3.8	−4.2	−2.3	−2.4	1.4	3.0
Other assets (net) of the banking system	−7.6	−3.6	2.3	0.9	−0.9	0.5	1.7	−0.9	−0.2
	% of GDP								
General government revenues	33.3	33.0	33.5	..	..	..	..	..	..
General government expenditures	36.5	35.2	34.9	..	..	..	..	..	..
General government balance	−3.2	−2.2	−1.4	..	..	..	..	..	..
Primary balance	−1.4	−0.5	0.3	..	..	..	..	..	..
Gross public debt	37.4	38.0	39.9	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	52.3	48.0	44.4	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	20.7	19.0	17.6	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	−6.7	−4.0	−4.2	−3.7	−4.4	−3.5	−5.1	−4.0	−4.6
Services balance	1.9	3.3	3.9	4.8	4.3	3.4	3.5	4.8	4.7
Primary Income	−1.7	−2.2	−1.3	−1.6	−3.5	−2.0	1.2	−1.4	−2.8
Secondary Income	2.0	1.9	1.2	0.8	1.2	1.5	1.0	2.0	1.3
Current account balance	−4.5	−1.1	−0.5	0.3	−2.4	−0.6	0.7	1.4	−1.4
Capital account balance	1.4	2.1	2.6	5.5	1.2	1.0	3.6	4.9	1.7
Foreign direct investment (net)	1.8	2.0	1.8	2.5	1.8	2.0	1.2	2.6	1.4
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	75.7	68.2	62.8	65.4	63.9	63.4	62.8	61.1	58.9
Gross official reserves (excluding gold)	23.4	22.7	21.5	21.7	21.2	20.9	21.5	20.0	19.5
	Months of imports of goods and services								
Gross official reserves (excluding gold)	6.7	6.7	6.2	6.3	6.2	6.1	6.2	5.8	5.6
	EUR million, period total								
GDP at current prices	133,518	144,130	150,147	287,85	35,292	41,627	44,443	31,489	36,580

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

10 Turkey: lira falls as macrofinancial risks rise and a hike in Fed interest rates comes nearer

Mounting internal and external political risks

GDP expanded by 3.1% in the first half of 2015, a slightly stronger rate than in the full year of 2014. Recent leading indicators signal lower growth in the second half of 2015 amid increased uncertainties. Parliamentary elections in June 2015 did not yield a majority for any party. The failure to form a coalition government thereafter led to snap elections to be held in November 2015, and the ensuing heightened political uncertainty added to an all-time low in the consumer confidence index in September 2015. As security risks are increasing, uncertainty about global liquidity conditions prevails and external refinancing needs remain elevated, Turkish five-year CDS spreads have risen to their highest level in three years.

Domestic demand surprisingly on the upside

On the production side, most of the increase in economic activity in the first half of 2015 stemmed from manufacturing and agriculture, and it was predominantly absorbed by private consumption, which expanded by 5.1%. In fact, though, all components of domestic demand were strong. Private investment growth rebounded to 5.2% following four quarters of consecutive contraction. This resulted among other things from pent-up spending by private enterprises on new or improved machinery and equipment. Public consumption growth rose to 4.9% ahead of the parliamentary elections in June.

Despite the elections, fiscal performance has not slipped. Strong revenue growth in the first half of 2015 was driven by rising tax revenues and large privatization receipts in June. EU-defined gross public debt is expected to sink to 31.8% of GDP in 2015. The unemployment rate remained high at around 10% in the first half of 2015.

Narrowing of the current account deficit slows

The growth contribution of net exports turned negative in the first half of 2015 as a result of falling exports. In addition to the effects of geopolitical tensions and economic downturns in major trading partner countries (Russia and Iraq), exports to the EU weakened against the background of the strong ULC increase in recent years. On the other hand, import growth, which had been negative in 2014, recovered. The four-quarter moving average of the current account deficit narrowed to 5.8% of GDP in the second quarter (–7.5% of GDP a year earlier), mainly due to the lower oil price. The financing of the current account deficit remains highly fragile: Net FDI inflows accounted for less than 12% of the deficit and net portfolio flows – which had still covered 43% of the deficit in 2014 – turned negative in the first half of 2015 and thus covered only 11% of the deficit by the end of the second quarter of 2015. The external refinancing needs of the Turkish economy will be particularly high over the next few months.

Lira weakness raises inflation

Since February 2015, the Turkish central bank (CBRT) has kept policy rates (one-week repo, borrowing and lending rate) unchanged. Policy interest rates have been too low to keep the external value of the Turkish currency stable. In fact, the lira has been under noticeable depreciation pressure. Since the beginning of 2015, the lira has weakened by 29% against the U.S. dollar and by 19% against the euro. In late July, the Turkish central bank attempted to counter the depreciation pressure by cutting one-week forex lending rates (by 50 basis points to 3% for U.S. dollar deposits and 25 basis points to 1.25% for euro deposits). A strong exchange rate pass-through in connection with higher prices for food, services (in particular restaurant and hotel costs) and durable goods kept inflation high (7.9% in September) even though global commodity prices were low. In July, the central bank raised its end-year inflation forecast to 6.9%. The end-year inflation target remains unchanged at 5%.

Table 10

Main economic indicators: Turkey

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
Year-on-year change of the period total in %									
GDP at constant prices	2.5	4.2	2.9	5.1	2.4	1.8	2.7	2.5	3.8
Private consumption	−0.7	5.1	1.4	2.6	0.5	0.1	2.5	4.6	5.6
Public consumption	6.4	6.5	4.7	9.2	2.5	6.6	2.0	2.5	7.2
Gross fixed capital formation	−1.9	4.4	−1.3	−0.3	−3.5	−0.4	−1.0	0.4	9.7
Exports of goods and services	17.8	−0.2	6.8	11.2	5.6	7.8	3.3	−1.1	−2.1
Imports of goods and services	0.6	9.0	−0.2	0.7	−4.3	−1.6	4.7	3.9	1.6
Contribution to GDP growth in percentage points									
Domestic demand	−1.6	7.4	1.2	2.6	−0.3	−0.9	3.8	4.1	4.0
Net exports of goods and services	3.6	−2.3	1.6	2.4	2.5	2.1	−0.4	−1.3	−1.0
Exports of goods and services	3.8	−0.1	1.6	2.5	1.3	1.8	0.8	−0.3	−0.5
Imports of goods and services	−0.2	−2.3	0.0	−0.2	1.2	0.4	−1.2	−1.0	−0.4
Year-on-year change of the period average in %									
Unit labor costs in the whole economy (nominal, per hour)	..	..	..	..	..	..	..	..	..
Unit wage costs in manufacturing (nominal, per hour)	13.7	10.3	12.8	11.0	13.6	12.9	13.9	12.9	9.3
Labor productivity in manufacturing (real, per hour)	−1.9	1.7	1.3	3.8	0.9	1.3	−0.6	1.0	5.1
Gross wages in manufacturing (nominal, per hour)	11.5	12.2	14.3	15.2	14.7	14.4	13.2	14.0	14.9
Producer price index (PPI) in industry	6.1	4.5	10.2	11.8	11.3	9.7	8.3	3.3	6.0
Consumer price index (here: HICP)	9.0	7.5	8.9	8.1	9.3	9.4	8.8	7.5	8.0
EUR per 1 TRY, + = TRY appreciation	0.9	−8.6	−12.9	−22.4	−17.0	−8.9	−2.5	9.5	−1.8
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	8.4	8.9	10.1	10.3	8.9	10.2	10.9	11.4	9.5
Employment rate (%, 15–64 years)	48.9	49.5	49.5	48.0	50.8	50.2	49.1	48.4	51.1
Key interest rate per annum (%)	5.7	4.8	8.7	8.4	9.7	8.3	8.3	7.8	7.5
TRY per 1 EUR	2.3	2.5	2.9	3.0	2.9	2.9	2.8	2.8	3.0
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	10.5	21.1	11.8	19.8	16.0	14.9	11.8	15.8	18.3
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	2.2	−5.2	−10.8	−4.8	−2.4	−3.6	−4.0	−4.2	−4.7
Domestic credit of the banking system	38.5	51.9	57.7	31.2	26.5	24.0	21.5	25.2	27.8
of which: claims on the private sector	46.5	55.6	58.6	32.4	25.2	22.3	20.8	25.1	28.6
claims on households	15.3	15.2	11.4	6.2	4.0	2.9	2.5	3.6	4.0
claims on enterprises	31.2	40.4	47.2	26.1	21.1	19.4	18.3	21.5	24.6
claims on the public sector (net)	−8.1	−3.7	−0.9	−1.2	1.4	1.8	0.7	0.0	−0.8
Other assets (net) of the banking system	−13.3	−12.9	−11.7	−6.6	−8.1	−5.5	−5.7	−5.2	−4.8
% of GDP									
General government revenues	37.8	39.0	39.1	..	..	..	..	..	..
General government expenditures	38.1	40.6	40.6	..	..	..	..	..	..
General government balance	−0.3	−1.6	−1.5	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt	36.2	36.2	33.5	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	..	..	..	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Trade balance	−8.3	−9.8	−8.0	−6.5	−8.6	−7.5	−9.2	−6.2	−7.6
Services balance	2.9	2.8	3.1	1.4	3.2	5.1	2.6	1.5	3.0
Primary income	−0.9	−1.1	−1.2	−1.3	−1.1	−1.0	−1.1	−1.5	−1.8
Secondary income	0.2	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Current account balance	−6.1	−7.9	−5.8	−6.4	−6.3	−3.2	−7.6	−6.1	−6.3
Capital account balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign direct investment (net)	1.2	1.1	0.7	1.7	0.8	0.1	0.3	1.3	1.0
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	47.5	50.1	59.8	50.6	54.3	57.3	59.8	62.3	59.1
Gross official reserves (excluding gold)	12.4	13.1	14.6	12.8	13.8	14.9	14.6	15.0	14.0
Months of imports of goods and services									
Gross official reserves (excluding gold)	4.7	4.8	5.4	4.7	5.1	5.5	5.4	5.7	5.3
EUR million, period total									
GDP at current prices	612,976	619,300	602,110	135,359	147,618	161,291	157,842	160,225	163,239

Source: Bloomberg, European Commission, Eurostat, national statistical offices, national central banks, wiiw, OeNB.

11 Russia: coping with recession and sanctions

The contraction of the Russian economy accelerated from 2.2% in the first quarter to 4.6% in the second quarter (year on year), which resulted in a decline of 3.4% in the first half of 2015. In the first eight months of the year, GDP decreased by 3.8% (estimated, year on year). The recession has been largely caused by the deep slump in oil prices and the impact of Western sanctions in connection with the Ukrainian crisis. The economic downturn was driven by shrinking domestic demand (private consumption as well as fixed investment). In addition, the drawdown of inventories was particularly strong. While public consumption remained stable, the only positive contribution to growth came from exports, which, combined with the substantial contraction of imports, resulted in a sizeable improvement of net exports.

Imports plummeted, largely owing to the drop in domestic demand and to the strong depreciation of the Russian ruble, which had lost almost 40% of its external value on the average of the first eight months of 2015 compared to the same period of the previous year. Private consumption featured the most important aggregate decline. This weakening was caused by falling real wages against the backdrop of double-digit inflation, itself triggered by the plunge of the ruble as well as by Russia's countersanctions (which provided for a ban on food imports from countries sanctioning Russia). CPI inflation (year on year) peaked at 16.9% in March 2015 and has since declined slightly to 15.7% in September. This marginal easing of inflation is attributable to the deepening recession and the apparent digestion of the inflationary impact of the countersanctions.

Given the easing of inflation and the deepening of the economic contraction, the Central Bank of Russia (CBR) decided to decrease the key interest rate (the repo auction rate) from its emergency-triggered high level of 17% (December 2014). The key rate was successively adjusted in four steps from February to August 2015, bringing the rate down 600 basis points to 11.0%. Against the backdrop of the tenuous stabilization of the economic situation, private net capital outflows declined somewhat to USD 52.5 billion in the first half of 2015 (compared to a record-level USD 69.4 billion in the first half of 2014). Russia's international reserves continued to erode until March to April 2015, when they reached about USD 350 billion before stabilizing and slightly rising to USD 369 billion in late September 2015.

Russian state-owned banks' and enterprises' forced external deleveraging in the context of the Western sanctions played a primary role in the further drop of the country's total external debt to USD 556 billion (around 39% of GDP) in the first half of 2015. Financial intermediation in Russia is in the midst of a downturn: Lending contracted by 10% in August 2015 (year on year, in real terms and exchange rate-adjusted). Total deposits shrank somewhat less, by 5%. The capital adequacy ratio edged up from 12.5% at end-2014 to 13.0% at end-July 2015 on account of the authorities' bank capital support program. At the same time, the CBR has allowed banks some flexibility in classifying overdue loans and in provisioning (regulatory forbearance). With a federal budget deficit of 2.1% of GDP in January to August 2015, the government is delivering a slight fiscal stimulus to counter the recession. The deficit was partly financed by the Reserve Fund (oil stabilization fund). Rising exports and sharply shrinking imports contributed to an expanding current account surplus (about 8% of GDP in January to June 2015).

Main economic indicators: Russia

	2012	2013	2014	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15
Year-on-year change of the period total in %									
GDP at constant prices	3.4	1.3	0.6	0.6	0.7	0.9	0.4	–2.2	–4.6
Private consumption	7.7	4.9	1.2	3.9	0.2	0.2	0.9	–8.9	–8.6
Public consumption	2.6	1.1	–0.1	0.0	0.0	–0.1	–0.2	–0.1	0.0
Gross fixed capital formation	6.7	0.9	–2.0	–4.5	–1.9	–1.7	–1.2	–8.8	–7.4
Exports of goods and services	1.1	4.6	–0.1	2.0	1.7	–1.3	–2.3	4.5	1.4
Imports of goods and services	8.7	3.8	–7.9	–6.6	–9.6	–7.6	–7.8	–25.0	–29.9
Contribution to GDP growth in percentage points									
Domestic demand	5.2	1.2	–0.9	–0.5	–1.5	–0.9	–0.6	–8.6	–11.0
Net exports of goods and services	–1.7	0.5	1.9	2.2	2.8	1.7	1.2	7.1	6.8
Exports of goods and services	0.3	1.4	0.0	0.7	0.5	–0.4	–0.7	1.6	0.5
Imports of goods and services	–2.0	–0.9	2.0	1.6	2.2	2.1	1.9	5.5	6.3
Year-on-year change of the period average in %									
Unit labor costs in the whole economy (nominal, per hour)	..	..	..	..	..	..	..	..	..
Unit labor costs in industry (nominal, per person)	7.6	7.9	5.6	6.9	5.0	5.3	5.2	6.9	13.7
Labor productivity in industry (real, per person)	4.8	2.3	3.4	2.5	3.7	3.4	4.0	0.9	–3.3
Average gross earnings in industry (nominal, per person)	12.6	10.3	9.2	9.6	8.9	9.0	9.5	7.8	9.9
Producer price index (PPI) in industry	6.8	3.3	5.9	4.2	8.2	5.8	5.5	9.6	13.8
Consumer price index (here: CPI)	5.1	6.8	7.8	6.4	7.5	7.7	9.6	16.2	15.9
EUR per 1 RUB, + = RUB appreciation	2.4	–5.7	–17.0	–16.5	–13.7	–9.6	–26.0	–32.4	–17.5
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	5.5	5.5	5.2	5.5	5.0	4.9	5.2	5.7	5.6
Employment rate (%, 15–64 years)	..	..	..	..	..	..	..	..	..
Key interest rate per annum (%)	5.3	5.5	7.9	6.0	7.4	7.9	10.3	15.5	12.8
RUB per 1 EUR	39.9	42.3	51.0	48.1	48.0	48.1	59.9	71.1	58.1
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	12.1	15.7	15.5	13.4	9.1	10.7	15.5	17.2	17.6
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	9.6	2.7	24.6	5.1	0.3	4.7	19.0	15.0	17.5
Domestic credit of the banking system	38.3	35.1	33.6	15.9	14.2	14.3	13.9	16.1	15.0
of which: claims on the private sector	46.2	36.9	43.3	17.5	15.4	16.0	22.8	19.3	15.7
claims on households	16.3	16.5	11.9	7.0	5.9	5.3	3.9	1.9	0.1
claims on enterprises	29.9	20.4	31.4	10.5	9.6	10.7	18.9	17.3	15.6
claims on the public sector (net)	–7.9	–1.9	–9.7	–1.6	–1.3	–1.7	–8.9	–3.1	–0.7
Other assets (net) of the banking system	–12.4	–8.2	–24.7	–7.6	–5.3	–8.2	–17.4	–13.9	–14.9
% of GDP									
General government revenues	37.1	36.9	37.5	..	..	..	..	..	..
General government expenditures	36.7	38.2	38.7	..	..	..	..	..	..
General government balance	0.4	–1.3	–1.2	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt	10.0	10.5	11.8	..	..	..	..	..	..
% of GDP									
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	..	..	..	..	..	..	..	..	..
% of GDP (based on EUR), period total									
Trade balance	9.5	8.8	10.1	11.5	10.5	8.7	10.2	16.9	12.9
Services balance	–2.3	–2.8	–3.0	–2.5	–2.9	–3.6	–2.7	–3.2	–2.9
Primary income	–3.4	–3.9	–3.6	–2.7	–5.0	–3.3	–3.5	–2.3	–4.8
Secondary income	–0.3	–0.4	–0.4	–0.4	–0.1	–0.7	–0.5	–0.4	–0.4
Current account balance	3.5	1.7	3.1	5.9	2.5	1.2	3.4	11.0	4.8
Capital account balance	–0.3	0.0	–2.4	0.0	0.0	–1.9	–7.6	0.0	–0.1
Foreign direct investment (net)	0.1	–0.8	–1.8	–0.4	–0.5	–2.4	–4.1	–0.4	–1.5
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	31.4	34.1	34.9	34.5	35.9	36.3	34.9	39.2	39.5
Gross official reserves (excluding gold)	23.7	21.8	19.9	21.1	21.1	21.9	19.9	21.8	22.3
Months of imports of goods and services									
Gross official reserves (excluding gold)	12.8	11.5	10.4	11.1	11.1	11.7	10.4	11.2	11.6
EUR million, period total									
GDP at current prices	1,556,545	1,560,883	1,404,130	321,445	360,693	389,426	332,565	233,022	300,964

Source: Bloomberg, national statistical offices, national central banks, wiiw, OeNB.

Outlook for selected CESEE countries:

GDP growth steady at 3% in CESEE-6, recession to ease in Russia[1,2]

Annual economic growth in the CESEE-6[3] region will remain at around 3% in the years from 2015 to 2017. This outlook corresponds to an annual improvement of 0.3 percentage points in 2015 and 2016 over the April 2015 projections. This upward revision is the result of the solid performance observed in early 2015. Over the entire projection horizon, all demand components in all CESEE countries will make a positive contribution to growth, except public consumption in Croatia. In particular private consumption is seen to be strengthening. Although export and import growth remains fairly strong in all countries under observation, the growth contribution from net exports is broadly neutral, except in Bulgaria and Romania, where it will become or remain clearly negative over the forecast horizon. The region's growth advantage over the euro area average will moderate from 1.8 percentage points in 2015 to 1.3 percentage points in 2017 as euro area growth is assumed to pick up.

We forecast Russian GDP to decrease by 4% in 2015 following the plunge of the oil price in late 2014, still heightened uncertainty and negative investment and private consumption dynamics. Shrinking domestic demand and the deep plunge of the Russian ruble reduce imports by about one-quarter. Backed by a moderate

Table 1

GDP and import projections for 2015 to 2017

	GDP				Imports			
	Eurostat/ Rosstat	OeNB/BOFIT forecasts			Eurostat/ Rosstat	OeNB/BOFIT forecasts		
	2014	2015	2016	2017	2014	2015	2016	2017
	Year-on-year growth in %							
CESEE-6	2.9	3.2	3.1	3.1	8.6	7.3	7.2	7.3
Bulgaria	1.7	1.9	2.1	2.4	2.0	5.4	4.6	7.1
Croatia	−0.4	0.7	1.2	1.6	4.3	6.9	6.1	6.3
Czech Republic	2.0	3.7	2.8	2.8	9.9	8.9	7.7	6.6
Hungary	3.5	2.9	2.3	2.2	10.0	7.6	7.4	8.1
Poland	3.5	3.5	3.6	3.7	8.8	6.0	7.0	7.6
Romania	2.9	3.3	3.5	3.1	7.7	8.5	8.0	6.7
Russia	0.6	−4.0	−2.0	1.0	−8.0	−25.0	−4.0	1.0

Source: OeNB-BOFIT October 2015 forecast, Eurostat, Rosstat.

Note: CESEE-6 = Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania.

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[1] Compiled by Julia Wörz with input from Stephan Barisitz, Markus Eller, Mariya Hake, Florian Huber, Mathias Lahnsteiner, Thomas Reininger and Zoltan Walko.

[2] Cut-off date for data underlying this outlook: October 6, 2015. The projections for the CESEE-6 countries were prepared by the OeNB, those for Russia were prepared by the Bank of Finland in cooperation with the OeNB. All projections are based on the assumption of a continued recovery in the euro area in line with the September 2015 ECB staff macroeconomic projections for the euro area. This implies real annual GDP growth of 1.4% in 2015, 1.7% in 2016, 1.8% in 2017 and a gradual increase of the oil price over the projection horizon from about USD 55 per barrel in 2015 to about USD 61 in 2017. We assume a prolongation of the current sanctions related to the Ukraine-Russia conflict over the entire projection horizon.

[3] CESEE-6: Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania.

recovery of the oil price and world trade, the decline in GDP is expected to ease to 2% in 2016. This implies a downward revision compared to our last projection. In 2017, economic growth will reappear, but remain very low due to insufficient investment and lack of structural reforms in the preceding years. The uncertainty triggered by geopolitical tensions will persist. The hesitant improvement of the Russian economy will be reflected in the modest recovery of imports.

1 CESEE-6: all growth drivers intact, domestic demand strengthens

In most CESEE-6 countries, economic growth surprised on the upside in the first half on 2015: the region's GDP expanded by 3.1% year on year in the first half of 2015 compared with 2.9% over the same period in 2014. For the remainder of 2015, we expect all elements of the present rather growth-friendly environment – strong purchasing power, accommodative monetary policy, neutral fiscal policy, a moderate increase in bank lending, and improving labor market conditions – to remain generally intact.[4] The currently accommodative monetary policy stance in the region involves conventional and in some countries also unconventional measures, such as Hungary's Funding for Growth Scheme (FGS), which was launched to stimulate bank lending, or exchange rate policy measures in the Czech Republic. On the fiscal side, the currently rather neutral policy stance will be continued in the second half of the year, except in Bulgaria, where the consolidation package following the recent bank rescue has already taken its toll on economic activity this year. While the requirements of the excessive deficit procedure (EDP) greatly reduce policy space in Croatia, actual consolidation has not substantially advanced so far, probably also in view of the general elections in November 2015.

In 2016 and 2017, low inflation is expected to continue in the CESEE-6 region, providing ample space to continue monetary policy accommodation even beyond the time frame of current measures that were launched in some countries to additionally support domestic demand. We expect no headwinds from the fiscal side for most countries of the region. In Poland, support for distressed borrowers will underpin private consumption growth in 2016, while we expect the new government to offset this effect by using the positive cyclical developments to introduce measures of fiscal tightening. In the Czech Republic, various tax measures will have a broadly neutral net impact on consumption. In Romania, we expect some impetus from tax reductions and further accommodative fiscal and wage policy measures ahead of the parliamentary elections in 2016. A further 1-percentage-point cut in the personal income tax rate as from 2016 will support household income in Hungary. In Croatia, fiscal policy will have to remain restrictive to comply with the requirements under the EDP.

Monetary policy stance to remain accommodative

The projected rise in economic activity over the entire projection horizon will increasingly rest on domestic demand; private consumption growth of the CESEE-6 region will come in at 3.4%, 3.3% and 3.2% in 2015, 2016 and 2017, respectively. Despite moderately softening growth dynamics, the growth contribution of private consumption will increase in Bulgaria and Croatia, reaching 2 percentage points and 1.6 percentage points in 2017, remain stable in the Czech Republic, Hungary and Poland at around 1.5 percentage points to 2 percentage

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[4] See "Developments in selected CESEE countries" in this issue.

points and fall from 3.2 percentage points (2015) to 2.4 percentage points (2017) in Romania (see chart 1). Public consumption growth will moderate for the region as a whole but the growth contribution of public consumption will remain fairly constant between zero and 0.5 percentage points. Croatia is the only country where public consumption is seen to decline in all three years of the projection horizon, yielding a negative contribution to GDP growth.

Investment growth takes a small dip in 2016 but remains fairly solid

Overlapping fund disbursements under two EU multiannual fiscal frameworks helped push the growth rate of gross fixed capital formation (GFCF) in the CESEE-6 region up in 2014. For 2015, we expect another fairly strong expansion, followed by some deceleration in momentum in 2016 after the end of the EU funding overlap. With increasing fund utilization within the new framework (2014–2020), annual GFCF growth will rise again in 2017. In general, we expect investor confidence to remain strong and financing conditions to improve along with a gradual resolution of high NPL ratios in a number of countries in the region. Only Bulgaria and Croatia – the two countries where corporate debt is already comparatively high – will exhibit notably weaker investment growth. Furthermore, dynamics in these two countries differ from the regional average as investment growth will recover gradually in Bulgaria and Croatia over the projection horizon rather than taking a dip in 2016. In Bulgaria the high corporate debt and elevated NPL ratios already induced a backlash in investment in the first half of 2015; this backlash will gradually be reversed by EU-cofinanced investment under the new EU fiscal framework. In Croatia, corporate investment and an increased EU fund absorption capacity are expected to start supporting GFCF. While the new law on the conversion of Swiss franc-denominated loans into euro-denominated loans may dampen NPL ratios, it may at the same time restrict credit supply, as the related costs are borne by the banking sector. Moreover, if perceived as increasing country risk, the loan conversion in Croatia might also negatively weigh on foreign investor sentiment, thus influencing the recovery of investment activity.

External demand remains a solid growth pillar

External demand will remain a reliable growth pillar as well. The ECB's asset purchase programs will continue to support CESEE-6 export performance by driving up euro area demand for CESEE goods and services. In 2015, the annual growth of real CESEE-6 exports will take a temporary dip, partly because of extremely high export growth in 2014 and partly because of country-specific factors such as expiring expansionary effects from increased car production capacities in Hungary. Over our projection horizon, however, export growth will accelerate in line with the assumed steady expansion of euro area import demand.

Given solid domestic demand and the strong import-export nexus especially in the more open CESEE-6 economies, import growth will also be dynamic. As a result, the net contribution of external demand to growth in the CESEE-6 countries will be low and mostly negative. Only Hungary and Croatia will record a constantly positive contribution. Although the net contribution of exports will increase in the Czech Republic and in Romania, a reduction in price competitiveness and reviving domestic demand will prevent it from turning positive in these two countries.

Chart 1

GDP and GDP components, projections for 2015 to 2017

Percentage points; GDP growth: year on year in %
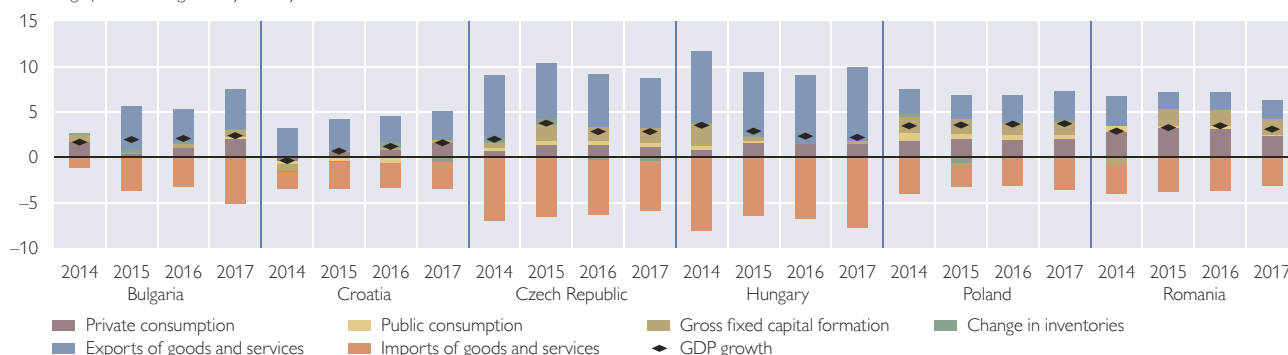
Source: OeNB.

Key external risks to our forecast are the situation in Ukraine, weaker global trade, oil price changes, the geopolitical situation, and deviations from our assumption concerning euro area growth performance.[5]

In our baseline scenario, we continue to assume that economic sanctions against and by Russia will remain in place over the entire projection horizon, as there has been a lack of progress in implementing the Minsk II agreement. An earlier lifting of the sanctions would represent an upward risk to our forecast. Yet, the possibility of intermittent flare-ups of hostilities remains high, and a substantial deterioration of the situation in eastern Ukraine would imply a severe downside risk.

A severe downside risk could emerge from possible repercussions of the Volkswagen emissions scandal, especially for those CESEE economies that are strongly integrated with car production networks involving Germany. More generally, weaker global trade flows, related inter alia to a worse-than-expected economic performance in China and other emerging economies would also impact negatively on CESEE-6 growth.

A steeper rise in oil prices would also imply a downside risk; however, given the agreement reached with Iran on its nuclear program, the prospect of economic sanctions against Iran being lifted and the absence of signs of a reduction in oil production by all major suppliers, we consider this development to be rather unlikely. The geopolitical situation continues to pose a downside risk that could materialize especially if military conflict in the Middle East were to spread and if increased refugee flows to Europe pose challenges to European integration, e.g. resulting in higher trade costs due to border controls.

Concerning economic developments in the euro area, both up- and downside risks could in principle arise, related inter alia to a longer-term stagnation scenario on the downside and the impact of structural reforms on the upside.

Risks to growth continue to be tilted to the downside

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[5] *Domestic risks are reported in the individual country projections.*

2 Projections for Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania

Bulgaria: gradual recovery of domestic demand in the medium run

We revise our April forecast for Bulgaria slightly upward, which reflects the unexpected strong export performance in the first half of 2015. The improved export performance can be explained to a certain extent by the depreciation of the euro, given that slightly more than 50% of Bulgaria's exports go to countries outside the euro area. In line with the improved external environment and continuing monetary easing in the euro area (at least until the second half of 2016), we expect that favorable export dynamics will persist, though they may lose some momentum vis-à-vis 2015.

Domestic demand, on the other hand, has remained rather fragile but is expected to gather steam gradually. Public consumption is still constrained in the short run by ongoing fiscal consolidation, which is necessary to reach the defined domestic budgetary targets. Private consumption has so far expanded only hesitantly but we expect a more pronounced acceleration due to improving consumer confidence and stabilizing labor market conditions. Nonetheless, we also have to take into account that consumer price inflation will most likely return in 2016 as the base effects of administrative price decreases and the fall in oil prices drop out of the index.

After a comparatively strong year 2014, investment experienced a renewed backlash in the first half of 2015 and will thus only marginally contribute to economic growth in 2015. Over the medium term we should see a stronger growth contribution by investment as capacity utilization has improved since mid-2014. Public investment – accounting for about 25% of total investment – is not expected to accelerate considerably before 2017 as the implementation of EU-cofinanced projects under the new operational program (2014–2020) will take time.

Import dynamics are expected to mirror the gradual improvement in domestic demand. Taking all these considerations together, we expect that the positive growth contribution of net exports will outweigh that of domestic demand in 2015, while by the end of the forecasting horizon domestic demand will have taken over and import growth will most probably outpace export growth.

Croatia: end of recession finally in sight

Following a decline in GDP for six years in a row, the Croatian economy is finally set to enter positive growth territory in 2015. The recovery will be somewhat faster than projected in our spring forecast, which we revise upward to 0.7% for 2015. We expect that the improvement of consumer and business confidence indicators that started in early 2015 will continue throughout the second half of the year. Private consumption will furthermore benefit from a tax reform effective from January 2015 and possibly also from incipient improvement in labor market conditions. The firming of external demand coupled with a strong summer season for the tourist industry is projected to be only partly offset by the slight upward adjustment in imports, thus still leaving a strong positive contribution of net exports to growth of 0.6 percentage points in 2015. On a negative note, however, investment activity in 2015, although already recovering, is still being held back by ongoing deleveraging pressures, the low absorption of EU funds but also by fiscal consolidation pressures. At the same time, the conversion of Swiss franc loans – despite its supportive effect on disposable incomes in the short run – is likely to have a negative effect on investor sentiment in the longer run.

In 2016 and 2017, GDP growth is projected to expand by 1.2% and 1.6%, respectively, reflecting the continuing recovery of private consumption on the back of a slight improvement of employment conditions and higher disposable income. At the same time, the positive contribution of net exports will abate throughout the forecast period as imports are set to continuously accelerate in line with the firming of private consumption. On the downside, we expect the banking sector to be less supportive for the long-awaited revival of credit growth in those two years as substantial capital buffers had to be set up following the conversion of Swiss franc loans. In addition, despite a likely acceleration of EU structural funds absorption, public investment activity will be held back by consolidation needs in the aftermath of general elections as well as by the pressure to bring down the fiscal deficit so as to meet the conditions under the EDP by 2017.

After a strong first half of 2015 that was mainly determined by rising inventories and sustained increases in investment, we expect Czech GDP to grow by 3.7% in 2015. In 2016, GDP growth is expected to slow down to 2.8% and to remain at this level in 2017. In addition to domestic factors, favorable external conditions, like the comparatively low level of the oil price and positive developments in the euro area act as further important determinants of this expansion.

<div style="float:right">Czech Republic: robust GDP growth mainly driven by domestic demand</div>

The main driving force behind the sound performance of the Czech economy is domestic demand. We expect improving labor market conditions and consumer confidence to translate into pronounced increases in private consumption. In addition, supportive fiscal and monetary policy, a robust banking sector and recovering credit growth rates will provide further boosts to investment and private consumption. Growing business confidence, better absorption of EU funds and higher capacity utilization are expected to boost investment growth to around 5.6% in 2016 and 6% in 2017.

Recent figures signal subdued levels of inflation in 2015. However, inflation expectations suggest that the inflation rate is expected to reach the target within the next two years. If inflation is markedly below the target over the next year, the central bank stands ready to extend its exchange rate interventions beyond the end of 2016.

On the back of loose monetary policy, we forecast export growth to decline gradually from 7.5% in 2015 to around 6.3% in 2017. The strong performance of exports is largely attributable to favorable developments in traditional export sectors like the automotive sector. The projected downward trend in export growth is predicated on the likely exit from unconventional monetary policy in the second half of 2016. While export growth remains robust, the growth contributions of net exports will be in slightly negative territory in 2015 and 2016, underpinning our view that domestic factors will be a major driving force of GDP growth in the near future.

We expect GDP growth in Hungary to decelerate to slightly below 3% in 2015. We continue to see the major driver behind the slowdown in a smaller expansion of investment activity than in 2014. On the one hand, investment activity is expected to continue to benefit from the low interest rate environment, relatively high capacity utilization rates in industry, robust business sentiment, the extension of the central bank's Funding for Growth Scheme (including FGS+) and the broadening of the housing subsidy scheme since mid-2015. On the other hand, strong investment growth in 2014 and the fact that residual EU funds from the

<div style="float:right">Hungary: economic policy measures support disposable incomes</div>

2007–2013 programming period that had still been available in 2014 have dried up will push investment growth down in 2015. Taking current plans at face value and thus assuming the FGS schemes to come to an end by end-2016, we expect a further slowdown in 2016–2017, with an upside forecast risk as nonsubsidized bank lending may have picked up by that time.

We expect the settlement of consumer loan contracts (i.e. the retroactive compensation by banks for exchange rate margins on foreign currency loans and for unilateral hikes in interest rates and fees) and the conversion of foreign currency consumer mortgage loan contracts into forint loans at the beginning of 2015 to have boosted households' disposable income and to have reduced their precautionary savings. Thus we expect household consumption growth to accelerate to 3.2% in 2015. This one-off supporting factor will fall out of the index during the first half of 2016. However, the planned conversion of most remaining foreign currency-denominated consumer loans into forint loans at the beginning of 2016, improving consumer sentiment, employment gains, rising real wages, a 1-percentage-point cut in the personal income tax rate at the beginning of 2016 and households' improved financial position should keep consumption growth at around 3% in 2016–2017.

Ongoing fiscal discipline should keep public consumption growth well below the overall GDP growth rate. Exports are expected to expand by 7% to 8% annually; these figures should be slightly exceeded by import growth rates on the back of strong domestic demand. The contribution of net exports is expected to be slightly positive between 0.5 percentage point and 1 percentage point.

Poland: robust economic growth as an opportunity for further fiscal consolidation

In Poland, the economy will continue to grow strongly at 3.5% in 2015. At 5.7%, export growth will be slightly lower than last year's robust rate of expansion, somewhat dampened by the recession in Russia and Ukraine. Gross fixed capital formation (GFCF) will rise by 7.5% in the year as a whole. Inventory build-up will be substantially smaller than in 2014, rendering a negative contribution to GDP growth. Private consumption growth will accelerate to 3.5% as a result of the strong rise of households' real disposable income (strong wage and employment growth, adjustments to the pension indexation scheme, higher tax deductions for families with children, deflation). Public consumption growth will be contained by the continued partial freeze on public sector wages, but will remain in positive territory. Overall, total domestic demand will grow more slowly than in 2014. Exports will remain the single most important component of total final demand growth. Import growth will decelerate significantly, from 8.8% in 2014 to 6.0% in 2015, barely outpacing export growth. This will translate into an almost zero contribution of net exports to GDP growth in 2015.

In 2016, we forecast GDP growth to slightly accelerate to 3.6%, driven by a higher contribution of exports, which will grow by 6.4% on the back of stronger foreign demand. By contrast, we expect the growth contributions of the main components of domestic demand to slightly decline. GFCF by the corporate sector will continue to benefit from the knock-on effects of rising euro area demand and solid domestic consumption demand as well as from relatively high capacity utilization levels and the favorable financing situation with respect to both internal and external funding. The latter will also support housing investment, which benefits from households' income growth and from a state-subsidized housing program for young people, as has already become visible in the higher numbers of building

permits and dwellings under construction. On the other hand, the only gradual absorption of funds under the new EU fiscal framework will curtail public invest- ment. Moreover, new measures that offer relief to distressed borrowers will burden the banking sector and weaken credit supply. Overall, we expect fixed investment growth to slow to 6.0%. By contrast, inventory build-up will stabilize so that it will no longer make a negative contribution.

Private consumption growth will continue to be driven by strongly rising primary income stemming from robust labor market developments and by sup- portive financing conditions. In addition, recently adopted legislation will provide support for distressed borrowers that tend to have lower incomes and a higher consumption propensity, while further, less targeted support is currently being discussed. On the other hand, deflation will probably fade away soon (e.g. higher drought-related food prices), and efforts to use the positive cyclical developments for some fiscal consolidation measures following the parliamentary elections in October 2015 are likely to imply slightly lower growth rates of consumption in 2016 than before. Import growth will accelerate as well, mainly as a result of higher export growth, while the contribution of net exports to GDP growth will remain close to zero. By contrast, in 2017, both stronger exports and domestic demand will accelerate import growth further, and net exports will turn slightly negative.

For the year 2015, we expect Romania's GDP growth to come in at 3.3%, then accelerate to 3.5% in 2016 before slowing down to 3.1% in 2017. Surpris- ingly strong GFCF growth in the first half of 2015 – following two years of negative growth – is the main reason for our upward revision for the current year. We expect investment growth to remain high, as NPL resolution increased banks' capacities to lend. GFCF will also benefit from the low interest rate environment and better EU fund absorption. Furthermore, the euro area recovery will help Romania attract FDI inflows.

Though private consumption has already grown fast, several fiscal and wage policy measures taken ahead of the parliamentary election in 2016 will provide further support. On top of this, we may see additional comparable measures. The announcement of the wage increase in the health sector entailed similar demands from other public workers, some of which will probably be fulfilled.

Despite these measures, we expect annual GDP growth to be lower in the second half of 2015 than in the first, as the summer drought negatively affected this year's harvest. Agricultural output amounted to almost 5% of GDP in 2014, 80% of which were generated in the second half of the year. A 10% decline in agricultural output would thus have an impact of 0.5% of GDP, but the actual outcome may be even worse. Year-on-year fluctuations of agricultural output by 20% to 30% have occurred frequently in the last ten years.

We expect import growth to exceed export growth by a significant margin over the forecast horizon. Imports surged in the first half of 2015, while export growth decelerated markedly. Import growth will stay high given strong domestic demand, while rising unit labor costs in the manufacturing sector will constrain export growth. Therefore, Romanian export growth, which will benefit from accelerating euro area growth, will only speed up slightly until 2017. The contribution of net exports will rise from –1.9 percentage points in 2015 to

Romania: political cycle supports consumption-driven growth, but weak harvest this year

–1.2 percentage points in 2017 as import growth is expected to decelerate in 2017 in line with somewhat lower domestic demand growth.

3 Russia: recession expected to ease in 2016, making way for a slow recovery in 2017

Following the plunge of the oil price and the steep decline of the Russian ruble in late 2014, the Russian economy entered recession. In 2015, GDP is expected to slump by about 4% if the average oil price for the year comes to around USD 55 per barrel (Brent). While the negative dynamics of investment and private consumption are not expected to change much toward end-2015, government expenditure is being somewhat reined in after the boost in the first half of the year. Shrinking domestic demand and the steep fall of the Russian ruble reduce imports by about one-quarter in 2015.

In 2016 the decline in GDP is expected to ease to 2% as world trade will likely pick up and the oil price is assumed to recover moderately. However, the collapse of the oil price in late 2014 will continue to weigh on the economy in 2016. Uncertainty will persist due to sustained tensions with regard to the situation in eastern Ukraine and to continuing sanctions. Private consumption will be constrained by rather gradual disinflation and weak corporate profitability, while hikes of public sector wages have been partly reined in and partly frozen. As in 2015, layoffs by firms may remain mild compared to the decline of business activity, but economic pressures keep resulting in more part-time work and temporary redundancies. Investment will remain severely constricted by the weak economic prospects and the rough business climate. Financing costs will stay fairly high due to recession, risks and sanctions. In addition, economic contraction has led to an increasing underutilization of productive capacity. The export volume will increase slowly. The decelerating decline of domestic demand will soften the decrease of imports.

In 2017, economic growth will return, but will remain low due to insufficient investment and a lack of structural reforms in earlier years. The uncertainty triggered by geopolitical tensions will persist. The hesitant improvement of the economy will be reflected in a modest recovery of imports.

Russian economic policy has little leeway to provide growth impulses. After a steep interest rate hike in December 2014, the Bank of Russia has gradually lowered its key interest rate to below inflation. Fiscal policy resources are increasingly limited. With the economy's plunge into recession, state revenues have declined substantially in real terms, and the finance ministry estimates that the consolidated budget deficit will exceed 5% of GDP in 2015. As financing deficits has become more difficult (given the government's objective of avoiding an excessively rapid use of the Reserve Fund, the high costs of foreign borrowing, and the weak condition of domestic banks), there is a need to further cut government spending through 2016.

The risks surrounding our forecast continue to be large. A focal risk arises from possible upward or downward changes of the oil price from its assumed track. The situation in eastern Ukraine remains uncertain. The occurrence of negative events could quickly weaken investor sentiments further whereas positive events would restore investor confidence so slowly that the impact would be rather small during our forecast period. Our import forecast is subject to a risk of various

negative events like a possible further fall of the oil price or intensifying geopoliti-cal tensions that would push capital out of Russia, weaken the Russian ruble and further depress imports. The country's leadership could opt for increasing govern-ment spending if social pressures were to grow tangibly in the run-up to State Duma elections in the fall of 2016 or to the presidential elections in spring 2018. This increased spending could improve growth over the forecast period but might weaken it later on.

Studies

The mixed success of EU-IMF adjustment programs in Europe – why Greece was different

Aleksandra Riedl,
Maria Silgoner,
Angelika Knollmayer[1]

The comparison of the economic, financial and fiscal conditions in four EU-IMF financial assistance countries shows that Greece's economy was hit much harder during the crisis than Ireland, Portugal or Spain. While Greece has fallen back into recession and still depends on financial help from the international community, the adjustment programs appear to have been more successful in the other three countries.

The ongoing calamities of the Greek economy are partly the result of especially adverse starting conditions marked by manifold structural problems: Departing from a fairly low level, private debt in Greece surged rapidly. Economic growth in the pre-crisis years was thus credit-financed and consumption-based. This also applies to Ireland and Spain, which started with already comparatively high household debt levels. But in contrast to the latter two countries, credit growth in Greece was also high in the public sector, providing a strong procyclical stimulus to disposable incomes. This boosted domestic demand, whereas the performance of exports remained weak: As a consequence of rapidly growing unit labor costs, the export sector in Greece lost competitiveness, just as in Ireland, Portugal or Spain. It is the plurality of imbalances that makes the Greek case unique.

The severity of the recession in Greece was also the result of the extremely strong and frontloaded consolidation efforts made in the middle of a balance sheet recession. These were prompted by the more stringent fiscal requirements in the Greek adjustment programs as compared to the other countries' programs. Austerity measures seriously curbed domestic demand and could not stop debt from rising. Tight credit conditions and wage cuts additionally weighed on domestic demand and thus aggravated the recession.

Overall, the past years have shown that it was important and right to support countries in economic and financial difficulties. But experience with the Greek case has also taught us the limits of established forms of support which were not sufficiently underpinned by investment programs to support domestic demand.

In the course of the global financial crisis, several euro area (EA) countries experienced serious financial tensions and called for financial assistance from the countries of the European Union (EU) and the International Monetary Fund (IMF). The first country to seek assistance was Greece in 2010. According to the original plan, the country was to receive a total of EUR 110 billion in the form of IMF funds and bilateral loans from other euro area countries subject to strict conditionality (European Commission, 2010).

With the foundation of the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF) in 2010 and the subsequent launch of a permanent rescue fund in the form of the European Stability Mechanism (ESM) in 2012, further requests for assistance were channeled through a formalized and institutionalized setting.

In November 2010, a financial assistance package of EUR 85 billion for Ireland, whose oversized banking sector had been strongly hit by the bursting of the housing bubble, was primarily financed by the EFSM, the EFSF and the IMF (European Commission, 2011a). In May 2011, a package of loans totaling EUR 78 billion was granted to Portugal to give the country the necessary room for maneuver for putting its public finances back on a sound footing (European Commission, 2011b).

A second rescue package for Greece totaling EUR 130 billion was announced in fall 2011 (European Commission, 2012a), as the original expectations for growth and fiscal developments proved too optimistic. It was formally agreed in March 2012.[2] The set of required prior actions included a haircut on privately held public debt (private sector involvement, PSI). Later in 2012, Spain asked for financial assistance and was allocated EFSF and ESM funds of up to EUR 100 billion specifically to finance measures to bail out the Spanish banking sector, which had been strongly hit by the burst of the housing bubble (European Commission, 2012b). The conditionality attached to the support included bank- and banking sector-specific policy measures. In the end, the financial needs of Spain turned out to be much smaller (EUR 41 billion). A joint EU-IMF program with a financial package of EUR 10 billion for Cyprus was agreed in April 2013. The economy and especially the banking system in Cyprus had suffered from spillover effects from Greece, resulting in particular from the PSI program (European Commission, 2013).

While the economies of Ireland, Portugal and Spain appear to have managed to reverse the decline in economic activity and display decreasing unemployment rates, ameliorating fiscal figures and moderate financing conditions, Greece is stuck in a dramatic situation marked by high financial market tensions, recurring recessions and deteriorating fiscal data. As a result it became clear that Greece once more needed financial assistance. The third adjustment program with total ESM funds of EUR 86 billion over the period 2015–2018 was agreed in August 2015 (European Commission, 2015b). It is meant to lift Greece on a sustainable growth path again, extending the previous program which expired at end-June 2015.

The aim of this study is to find explanations why the financial assistance programs appear to have been successful in the cases of Ireland, Portugal and Spain, while Greece still depends on financial help from the international community. We conclude that the depth of the recession and the ongoing fiscal difficulties experienced by Greece result from unfavorable starting conditions, but also from enormous, frontloaded consolidation efforts made by Greece in the middle of a balance sheet recession.

This paper is structured as follows: Section 1 describes the recent economic conditions in the EU-IMF program countries Greece, Ireland, Portugal and Spain[3]. In section 2 we discuss how the starting conditions before the crisis differed among the four program countries. Section 3 compares the design of the adjustment programs in terms of consolidation targets. In Section 4 we discuss how the fiscal consolidation and credit supply constraints contributed to the slump of domestic demand that caused Greece to fail to meet the fiscal targets set out in the adjustment program. Section 5 concludes.

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[2] *Accordingly, the first program ended ahead of schedule.*

[3] *Cyprus is excluded from this analysis due to data limitations.*

1 Renewed deep recession in Greece exacerbates social hardship

Whereas pre-crisis growth in Greece was prosperous (about 4% on average 1999–2007) just as in Spain (4%) or Ireland (6%), Greece's economy was hit much harder during the crisis than the other program countries. Between 2008 and 2014, economic output contracted by an average of 4% a year in Greece. Just like Ireland, Portugal or Spain, Greece experienced a severe balance sheet recession, as high private indebtedness caused individuals and companies to pay down debt rather than to spend or invest. The severity of the balance sheet recession is evident in the negative growth rates of loans to private households and companies in Greece since 2011 (chart 8), reflecting credit supply constraints.

After six years of deep recession, GDP in Greece was about one-quarter lower than before the crisis (2007), as shown in chart 1. By comparison, Ireland, Portugal and Spain succeeded in already recouping some of the output losses, returning to 98%, 93% and 95% of 2007 GDP, respectively. The latter three countries appear to be on a sound recovery path, as shown in chart 2. According to the European Commission's autumn 2015 forecast, these countries will grow by 6.0%, 1.7% and 3.1% in 2015, respectively. By contrast, GDP in Greece is expected to contract by 1.4% in 2015 and by 1.3% in 2016.

As a consequence of the economic depression, social conditions in Greece have worsened rapidly. Like in Spain, the unemployment rate tripled during the crisis (chart 3). At 25%, it is the highest rate in the EU. As in Spain, youth unemployment comes to more than 50%. Given these prospects, many Greeks, especially young job seekers, are leaving the country. Since 2010, the population has declined by 2.5%. At 36%, the share of people at risk of poverty or social exclusion is higher than in any other euro area country (chart 4)[4].

Chart 1

Real GDP (2014)

2007=100
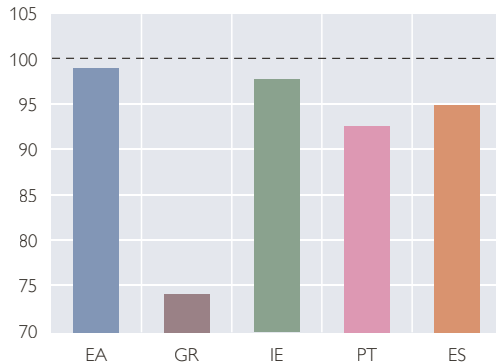
Source: Eurostat.

Chart 2

GDP growth

Annual growth in %
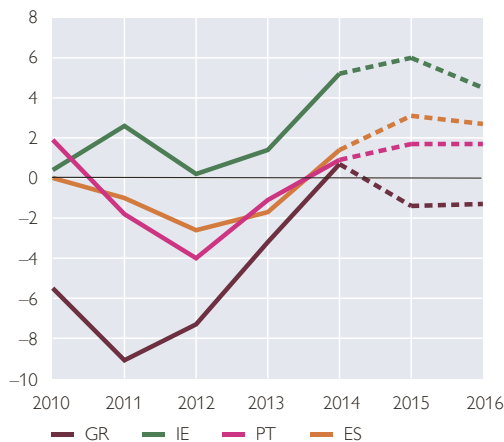
Source: Eurostat; forecasts: European Commission, November 2015.

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[4] *It has to be stressed that the corresponding poverty threshold levels are defined relative to a country-specific income level, which itself had declined far more strongly in Greece than in the other countries up to 2013.*

2 Starting conditions: imbalances and weaknesses in boom years

Several euro area countries experienced a period of prosperous economic growth in the years ahead of the financial crisis. Today we understand that much of this boom was based on unsustainable economic developments and internal and external imbalances. These were especially pronounced in the program countries covered in this article:

- The enormous housing boom in pre-crisis years in Ireland and Spain rapidly drove up construction activities and domestic demand. Growth was credit-financed and consumption-based. With the start of the crisis, these developments proved unsustainable.
- Ireland, Portugal and Spain had all lost competitiveness, as visible in rapidly increasing unit labor costs and mounting current account deficits in the years before the crisis.
- Portugal had high public debt and deficit ratios already before the crisis, and did not use the strong decline in interest rates to significantly reduce debt ratios before the crisis.

Greece was a special case because it experienced all of these imbalances simultaneously and showed multiple weaknesses already before the crisis. This multi-dimensionality of imbalances, especially in areas where no quick-fix solution can be reached in the short term, makes the Greek case especially challenging.

Chart 3

Unemployment rate (2007 and 2014)

%
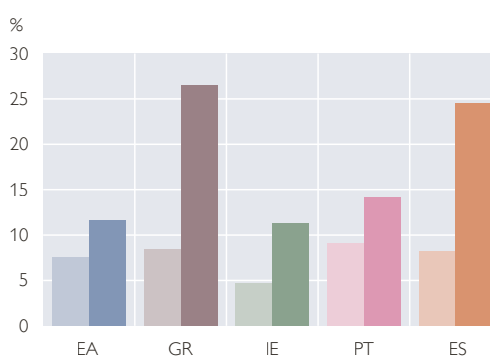
Source: Eurostat.

Chart 4

People at risk of poverty or social exclusion (2007 and 2013)

% of total population

Source: MIP Scoreboard.

2.1 Pre-crisis growth: consumer-driven and credit-financed

During the first years of monetary union, Greece experienced strong consumer-led and credit-financed growth. Starting from a fairly low level, debt of households surged rapidly, rising from 17% of GDP in 1999 (compared to about 50% in Spain or Ireland[5] and 62% in Portugal) to 52% in 2007 (chart 5). Growth of loans to households averaged 28% in the 1999–2007 period, by far exceeding that in Ireland (21%) or Spain (17%, chart 6).

This expansion of private debt happened on the back of the liberalization of the banking sector (Brissimis and Vlassopoulos, 2009; Brissimis et al., 2014), as well as the unprecedented decline in interest rates. Yields on ten-year government

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[5] For Ireland this figure refers to 2001 due to data limitations.

Chart 5

Households' financial liabilities (1999 and 2007)

% of GDP
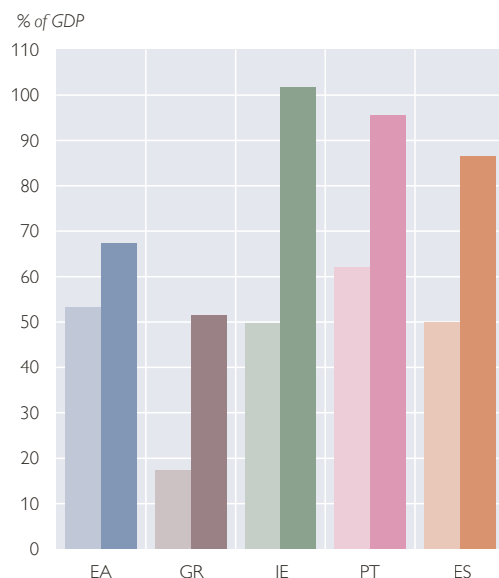
Source: Eurostat.

Note: Households and nonprofit institutions serving households. Ireland: first data point refers to 2001.

Chart 6

Growth of loans to households

Average growth in 1999–2007; %

Source: ECB.

bonds – an important benchmark for retail interest rates – declined by more than 10 percentage points in Greece, when comparing the first decade of monetary union with the six years before[6]. In Ireland, Portugal and Spain this decline was only 3 to 5 percentage points. Increasing inflation rates also contributed to the decline in real interest rates (chart 7).

The decline in interest rates made it easier to finance house purchases. Just as in Ireland or Spain, a real estate bubble developed in Greece (chart 9). Housing prices jumped by 110% between 1999 and 2007/2008; in Spain and Ireland, they shot up by 150%[7]. Construction work activities for housing in Greece, Ireland or Spain grew by an annual average of 6% to 8% in the years 1999 to 2007 and boosted GDP growth.

But the decline of interest rates and the credit expansion also fueled domestic demand more generally, as illustrated by chart 10. Growth of private consumption and investment (green and dark blue bars) was strong and thus the dominant contribution to GDP growth in Greece and Spain. As investment in Greece was primarily directed into the non-ICT sector (including housing), the benefits for the longer-term growth potential are rather small.

With the start of the financial crisis, the burst of the housing bubble and the refinancing difficulties of banks, the high level of private debt in the program countries became unsustainable. Banks increasingly had to cope with nonperforming loans and reduced lending to restore their balance sheets. Credit supply became scarce, especially for smaller companies. Individuals and companies needed to pay down private debt rather than spend or invest. In Greece, the negative growth rates of loans to households and companies observed since 2011 (chart 8) aggravated the decline in domestic demand (see section 4.2).

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[6] The comparison of the ten years after the introduction of the euro with only six years before in chart 7 is due to data limitations as the available series only starts in 1993.

[7] Portugal did not experience a similar construction boom, as its market had already been saturated.

Chart 7

Real long-term interest rates

GDP deflator, %
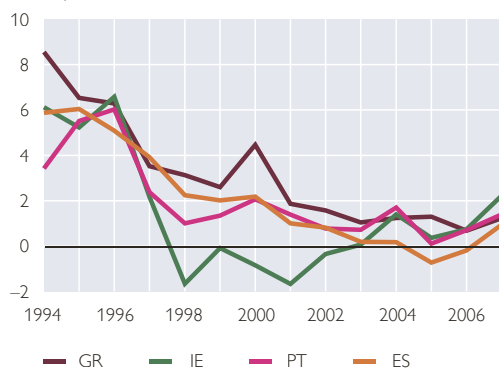
Source: European Commission.

Chart 8

Credit growth in Greece: households and corporate sector

%
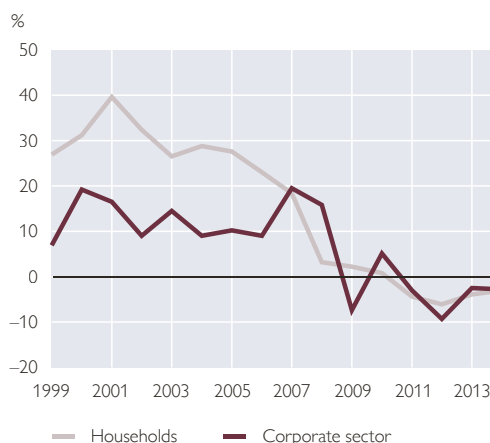
Source: ECB.

2.2 Unit labor cost growth contributes to loss of competitiveness

Chart 10 shows that – unlike Ireland, Portugal and the euro area as a whole – Greece recorded a negligible contribution of exports to GDP growth (burgundy bars) in the period 2001–2007. This was primarily the result of the low price and cost competitiveness of the Greek export sector. In parallel to the credit-financed domestic demand boom, unit labor costs increased by a yearly average of 3.6% in the pre-crisis years 2001–2007 (chart 11). The public sector contributed to these dynamics, given its traditional leading role in collective wage setting. Among the program countries, only Ireland posted higher unit labor cost increases. As a result, Greece lost almost 30% of price competitiveness between 2001 and 2009, if mea-

Chart 9

Residential property prices

Index: 1999=100
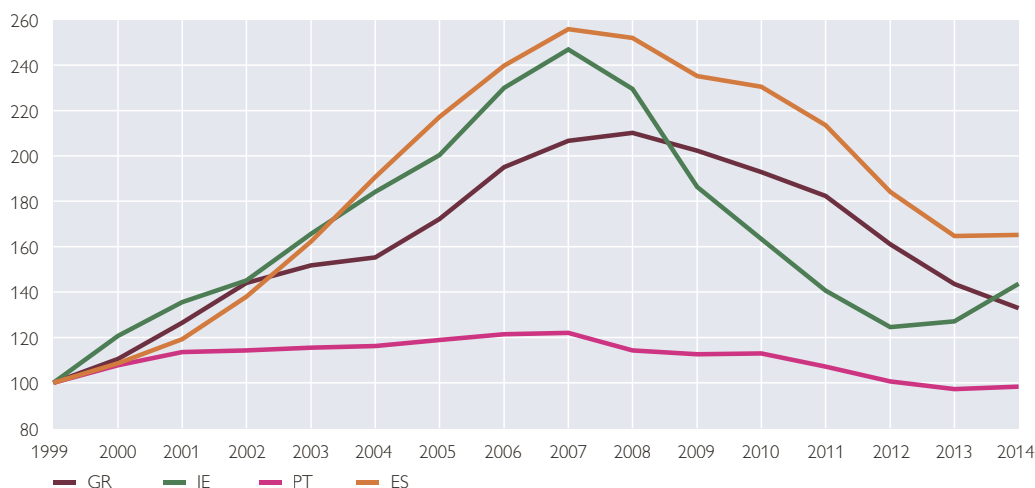
Source: ECB.

Chart 10

Average contribution to GDP growth (2001–2007)

Percentage points of GDP

Inventories
Gross fixed capital formation
Private consumption
Average GDP growth in %
Exports
Public consumption
Imports

Source: Eurostat.

sured by the real effective exchange rate (REER) based on unit labor costs (chart 30). This added to the already unfavorable euro entry exchange rate in 2002 that had put a strain on competitiveness from the very beginning of euro area participation (Coudert et al., 2013).

But cost dynamics are not the only source of weak competitiveness. The broadly based Global Competitiveness Index of the World Economic Forum (Schwab, 2014; chart 12), which summarizes aspects related to institutions, infrastructure, macroeconomic environment, education, market efficiency, market size and innovation, ranked Greece 81st among the 144 covered economies in its 2014–2015 report. Spain or Portugal reached a far better ranking (35 and 36); Ireland ranks 25th.

Furthermore, Greece's export sector focused on the cyclically rather sensitive medium- to low-tech sector. This exposed exports far more to the negative effects of the global recession during the crisis years. By contrast, Irish exports of pharmaceutical products or ICT services benefited from increased demand even during crisis times (Byrne and O'Brien, 2015).[8] Also the regional focus of exports proved a weakness in recent years as several of Greece's key export destinations (Turkey, Italy, Cyprus, Bulgaria)

Chart 11

Unit labor costs

Annual average growth in 2001–2007; %

Source: ECB.
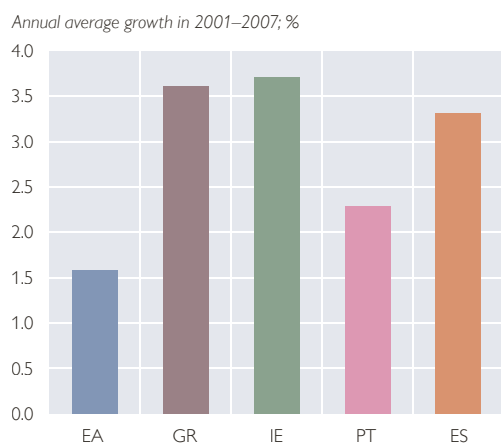
Chart 12

Global Competitiveness Index

Index (range 1–7)

DE   GR   IE   PT   ES

Source: World Economic Forum.

Note: Higher index values indicate a higher level of competitiveness.

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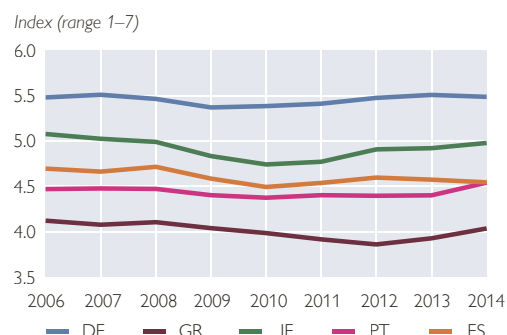
[8] *The good export performance of the Irish economy is partly the result of corporate tax policy: During the 1980s and 1990s, the Irish government attracted multinationals through low corporate tax rates. These multinationals are highly export-oriented and have an export focus on the United States and the United Kingdom, both of which recovered much more quickly from the global financial crisis.*

suffered from low growth or high risk themselves.

These weaknesses in terms of competitiveness may to a large extent explain the huge current account deficits in the pre-crisis years. In 2007, the Greek current account deficit reached 16% of GDP (chart 13). The other program countries experienced similar problems, but not of the same magnitude. Also, even before the crisis, Greece's export sector was rather small: goods exports represented only 10% of GDP in 2007 (chart 14). This compares to about 20% in Portugal and Spain and almost 50% in Ireland. Even if services are taken into account, the openness of the Greek economy remains low: In 2007, exports of goods and services were only 23% of GDP in Greece as compared to around 25% in Spain, 30% in Portugal and 80% in Ireland.

The large current account deficits made the Greek economy dependent on external financing and thus especially vulnerable to sudden shifts in market sentiment. Furthermore, the weak export sector was unable to step in as growth engine during crisis times, when domestic demand collapsed.

2.3 Good economic times were not used for fiscal consolidation

Even after years of prosperous economic growth, Greece started the crisis with adverse fiscal conditions. Chart 15 compares average GDP growth in

Chart 13

Current account (1999, 2007 and 2014)

% of GDP
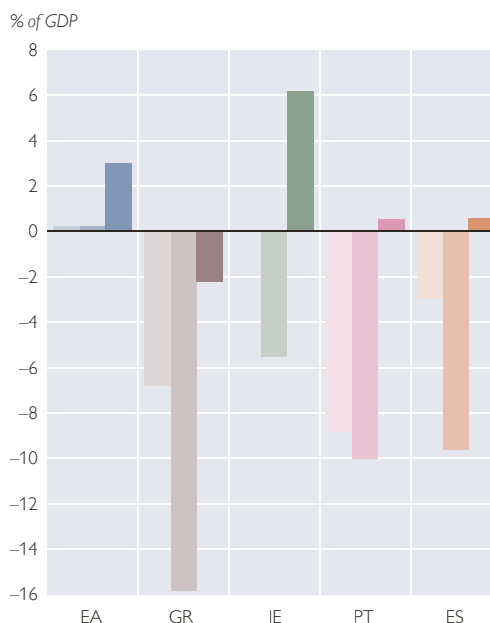
Source: European Commission.

Chart 14

Exports of goods (1999, 2007 and 2014)

% of GDP

Source: Eurostat.

the pre-crisis years 2005–2007 with the average fiscal balance over the same period. It shows that Greece did not sufficiently use good economic conditions for fiscal consolidation so as to be prepared for forthcoming bad times. While Ireland and Spain at least realized moderate budget surpluses and succeeded in reducing their respective debt ratios to 24% and 36% by 2007 (chart 17), Greece and Portugal posted fiscal deficits in times of decent economic growth. Take as a case in point the year 2006, when Greece posted GDP growth of 5.8% but had a fiscal deficit of 6.1% of GDP. In structural terms, i.e. adjusted for cyclical and one-off factors, the Greek deficit was as high as 8.5% on average over the 2005–2007 pe-

riod[9]. The deficit originated mainly from the spending side (transfers and public wages). As a result, the public debt-to-GDP ratio was already as high as 103% of GDP at the outset of the crisis, far above the 60% limit set out by the Stability and Growth Pact (chart 17).

Fiscal policy therefore was procyclical before the crisis, providing a stimulus to disposable income and consumption, on top of the impetus provided by private credit growth. Furthermore, governance was weak. The Global Corruption Barometer, which measures the average perception of corruption across six public institutions, ranked Greece second (after Mexico) in 2010/11 (OECD, 2013). Tax evasion was also widely spread, as shown by the high estimated share of the shadow economy in Greece (Schneider et al., 2015; chart 16). The buoyant domestic demand could thus not be used efficiently to increase fiscal revenues.

3 Greek consolidation requirements especially rigorous

The previous sections illustrated that the starting conditions in Greece were especially adverse when compared with other program countries. The economy suffered from a multitude of problem areas, while the other program countries presented certain specific weaknesses. Moreover, many of Greece's weaknesses such as tax evasion, widespread corruption and its lack of competitiveness were difficult to approach with a quick fix solution.

With the start of the financial crisis, the fiscal situation and financing conditions for Greece deteriorated quickly. In 2010, the year of the first adjustment program, the public debt ratio had already climbed to 146% of GDP (chart 17). The rapid debt increase was the result of rising budget deficits and high debt service costs, but also of substantial upward revisions of fiscal data by the Greek authorities. As a consequence of deteriorating fiscal data but also of the changing risk perception of financial market participants, yields for long-term bonds reached more than 10% (chart 18). By 2012, the year of the second program for Greece,

Chart 15

Fiscal consolidation in good economic times: GDP growth and budget balance

GDP growth in %; budget balance in % of GDP; average 2005–2007

GDP growth ▮   Government net lending/borrowing ▨
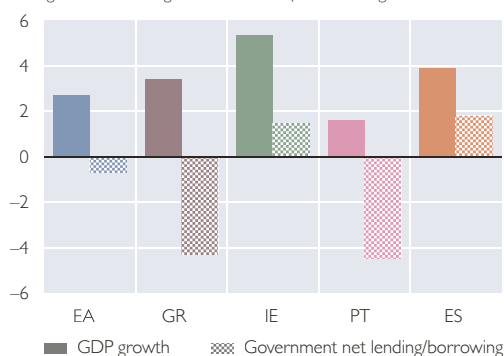
Source: Eurostat.

Chart 16

Shadow economy (2007)
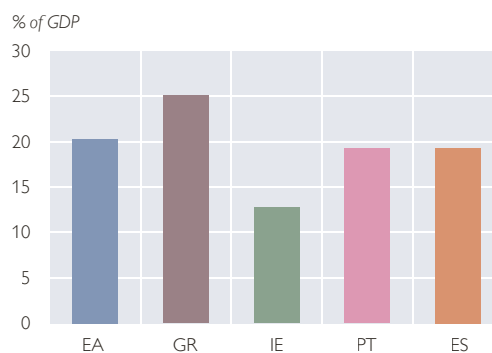
% of GDP

Source: Schneider, F., K. Raczkowski and B. Mróz (2015).

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[9] *Spain was the only country that posted a structural budget surplus of 0.9% of GDP over the 2005–2007 period. Ireland and Portugal had structural deficits of 6.5% and 3.7%, respectively (IMF data).*

yields had skyrocketed to more than 40% just before the implementation of the PSI program, while the public debt ratio had climbed to more than 170% by end-2011.

From today's perspective it appears evident, that the adverse starting conditions, the multiple weaknesses, the high and rising level of public indebtedness and the mechanisms of a "self-fulfilling" liquidity crisis (potentially degenerating into a solvency crisis) (De Grauwe, 2015) would have required an early, tailored and well-balanced long-term adjustment program beyond the conventional channels. This would have needed to include realistic fiscal targets, incentives for reform and earmarked funds for investment to bring the economy back on a sustainable growth path. Early and ample debt relief would have supported fiscal sustainability, however, at high costs via spillover effects.

However, a comparison of the adjustment programs of the years 2011 and 2012 (Ireland, Portugal, second program for Greece) shows that the fiscal objectives for Greece were actually much more stringent than in the other countries: The fiscal objectives outlined in the second economic adjustment program for Greece were subordinate to the ultimate goal of reducing the public debt ratio to below 120% of GDP[10] by 2020. Starting from a debt ratio of more than 170% in 2011, this implied a reduction by 50 percentage points in less than a decade (chart 19).

Achieving this objective would have required a primary surplus of over 4% per annum in the period from 2014 through 2020. There are only very few countries that managed to post primary surpluses of this magnitude over such a time-horizon. None of these countries did so during or right after a major balance sheet recession. The fulfillment of these fiscal targets was thus highly unlikely from the outset.

The consolidation targets for Portugal and Ireland were much less stringent. The adjustment program for Portugal just required a reduction of the public debt ratio by 10 percentage points until 2020 and did not require the achievement of a
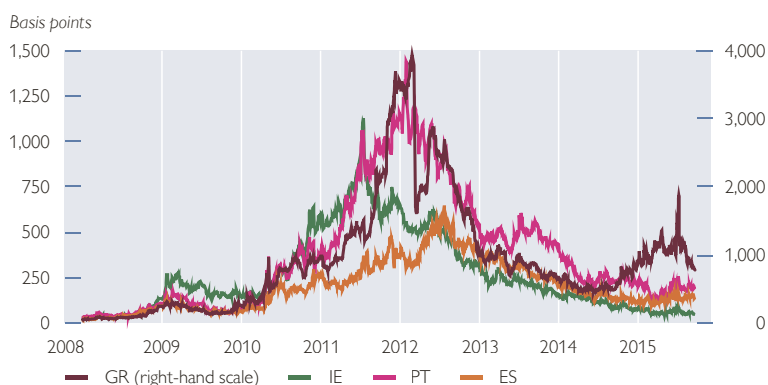
Chart 17

Gross government debt

% of GDP
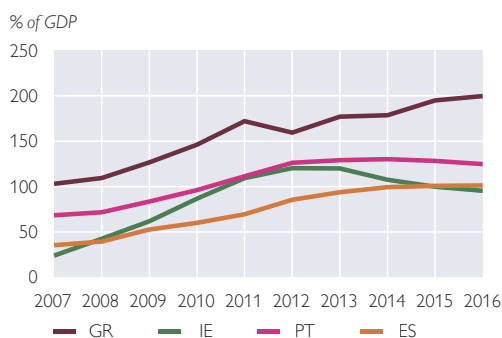
Source: AMECO.

Chart 18

Spread of ten-year government bond yields vis-à-vis Germany
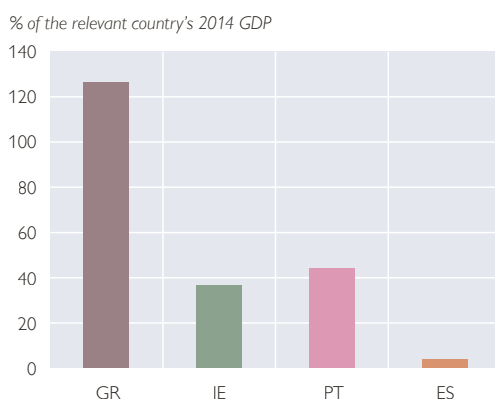
Basis points

Source: ECB.

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[10] *The 120% debt sustainability threshold defined for Greece is a country-specific target and for the first time officially appeared in the statement issued after the Euro Summit on October 26, 2011 (European Council, 2011). The standard IMF debt sustainability analysis uses a benchmark public debt ratio of 85% of GDP for advanced economies (IMF, 2013).*

Chart 19

Government debt and program forecast

% of GDP

GR — 2nd program GR ■ IE — Program IE ▲ PT — Program PT ◆
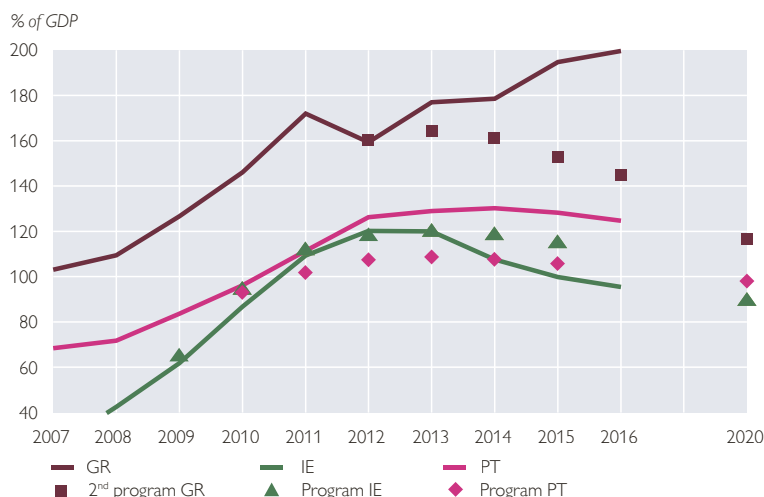
Source: Eurostat.

Chart 20

Size of rescue programs

% of the relevant country's 2014 GDP

Source: European Commission.

primary budget surplus. In the case of Ireland, the fiscal goals mainly focused on the 3% deficit threshold.[11]

The more stringent consolidation requirements imposed on Greece may have their political origin in the fact that creditors insist on more action on the part of the recipient country if the size of the rescue package is larger and if financing conditions are more favorable. After all, the initial public debt ratio was far higher in Greece than in the other program countries and as a result the size of the required bailout funds was also larger (127% of national GDP for both Greek programs versus roughly 40% in the case of Ireland or Portugal and 4% for Spain; chart 20). The financing conditions granted to Greece were also very favorable (long maturities and grace periods, low interest rates). But the attempt to meet the ambitious requirements set out in Greece's program in the middle of a balance sheet recession had disastrous consequences for economic growth.

4 Frontloaded consolidation efforts and credit crunch smothered domestic demand

Taking a closer look at the actual design of the Greek adjustment programs and the undertaken consolidation efforts, their high economic and social costs come as no surprise.

4.1 Consolidation in Greece was vast, frontloaded and largely revenue-based

Chart 21 shows the actual extent of austerity in the four program countries. The size of fiscal consolidation achieved in Greece over the period 2011–2014, measured by the difference between the structural primary balance of the years 2014 and 2010, was enormous, coming to 8 percentage points of GDP, a value that was only topped by Portugal (9 percentage points). If we look at the period 2010–2014, Greece's cumulated consolidation effort is even more impressive: at 14 percentage points of GDP, it by far surpassed that of the other three countries (7 to 9

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[11] *Spain is not discussed here because it did not have a fully-fledged fiscal adjustment program.*

Chart 21

Size of fiscal consolidation over the period 2011–2014[1]
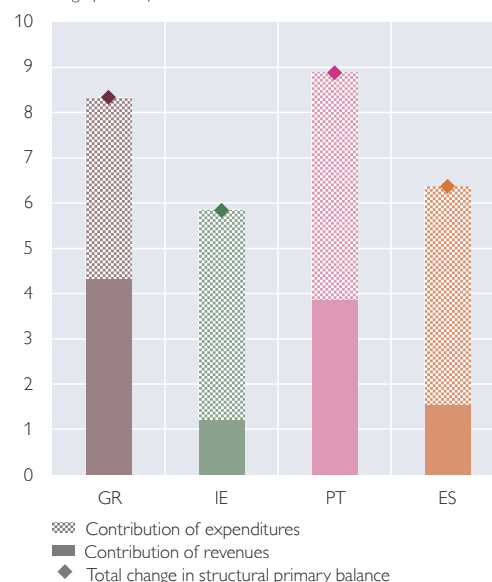
Percentage points of GDP

◆ Difference 2011–2010

Source: European Commission.
[1]*Difference of structural primary balance: 2014 minus 2010.*

Chart 22

Revenue- versus expenditure-side measures (2011–2014)

Percentage points of GDP

▨ Contribution of expenditures
▨ Contribution of revenues
◆ Total change in structural primary balance

Source: European Commission; OeNB calculations.
Note: Revenues and expenditures are cyclically adjusted; one-off measures and interest rate payments are excluded.

percentage points)[12]. Without rising tax evasion and tax shortfalls, the adjustment might have been even more sizeable.

The recent literature (e.g. Baum et al., 2012) finds that fiscal multipliers, i.e. the negative effects of consolidation measures on economic growth, tend to be higher during recessions. Koo (2015) adds to this literature by emphasizing the role of balance sheet recessions, in which the multipliers are even higher: if households and companies experience liquidity constraints this limits their propensity to increase consumption and investment even in view of improved fiscal sustainability.

These arguments would point against the frontloading of consolidation measures. By contrast, the Greek adjustment path shows a very pronounced pattern of frontloading austerity measures, much more so than in the other program countries. This is visible from the diamonds in chart 21, which show the adjustment in 2011, the first year of the indicated period. In Greece this adjustment added to the already sizeable consolidation progress in the year 2010 (not shown in the chart, see footnote 12). Overall, Greece realized a fiscal adjustment of 11 percentage points in 2010 and 2011, when the recession was at its peak. It is thus not surprising that consolidation measures crushed domestic demand in Greece, aggravating the depth of the recession.

Chart 22 complements this analysis by splitting total consolidation efforts (diamonds) up into the contribution of revenue- (solid bars) and expenditure-side measures (shaded bars). Generally, the empirical literature is quite inconclusive

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[12] *Official European Commission data only start in 2010. Figures for 2009 are based on OeNB calculations (according to European Commission methodology; one-off measures of 2009 are taken from the 2014 European Commission spring forecast), and are thus not included in charts 21 and 22.*

about the most efficient and "growth-friendly" way of fiscal consolidation. On the one hand, historical analysis of successful consolidation episodes shows that in these cases the emphasis was put primarily on expenditure-side measures (Alesina and Ardagna, 2009; Giavazzi and Pagano, 1990). This is why international organizations such as the IMF (2010) or the OECD (Sutherland et al., 2012) generally recommend an expenditure-side focus to improve the sustainability of consolidation measures.

A more recent strand of literature, however, argues that this "golden rule" may not necessarily apply to all countries and may not be appropriate for economies in the midst of a (balance sheet) recession (e.g. Koo, 2015). More generally, the fiscal effects may be country-, episode- and instrument-specific so that there is no universally valid rule about the most effective type of consolidation.

Chart 22 shows that in Greece and Portugal revenue-side measures accounted for about half of the consolidation outcome seen in the period 2011–2014, while they made only a minor contribution to consolidation in Ireland or Spain. Recent research on the failure of the first two Greek adjustment programs has come to the conclusion that the focus on revenue-side measures contributed considerably to the economic slump. Hondroyiannis and Papaoikonomou (2015) for example argue that rising multipliers during the crisis in Greece originated primarily on the revenue side. The revenue-side measures shifted the tax burden toward low-income groups with high marginal propensity to consume, magnifying the contractionary effect of tax increases on the economy. The spending measures by contrast appear to have had rather limited effects on economic activity, given their rather low effectiveness. Overall the specific policy mix of Greece's austerity program may have aggravated negative economic consequences.

The focus on the revenue side may at least partly have been the result of weak governance. Actually the first adjustment program for Greece (European Commission, 2010) specified that planned fiscal adjustment would rely primarily on expenditure cuts. Expenditure-side measures are typically much harder to enforce and are often heavily opposed by lobby groups. Rapanos and Kaplanoglou (2014) for example attribute the greater success of the adjustment program in Cyprus to the fact that it has stronger institutions than Greece[13].

4.2 Credit crunch aggravates consumption and investment slump

Credit growth was the main engine of domestic demand growth in the pre-crisis period. With the start of the financial crisis, deteriorating balance sheets and the refinancing difficulties of the financial sector, banks severely restrained credit supply to meet capital requirements.[14] Chart 8 shows that credit growth was negative both for households and the corporate sector from 2011 onward; especially small companies had difficulties obtaining financing. Individuals and companies needed to pay down private debt rather than spend or invest. The liquidity constraints of the private sector also amplified the economic costs of austerity measures. The credit crunch thus substantially aggravated the economic slowdown.

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[13] *The analysis covers aspects related to governance, property rights, security, accountability, corruption, the efficiency of public administration and business climate.*

[14] *Actually, the Greek banks had entered the crisis with relatively strong capital buffers (European Commission, 2011c).*

On the asset side, Greek banks suffered from a sharply mounting share of nonperforming loans, the result of the deep recession and the bursting real estate bubble. The increase of the nonperforming loan ratio was comparable to the Irish case, but in contrast to the latter it has not yet started to revert (chart 23). Moreover, Greek banks had a higher exposure to the domestic public sector than the banks in other program countries. From 2003 to 2007, the share of banks' domestic sovereign exposure in total assets had declined by about half in Greece and Spain to 9% and 4%, respectively, and had remained low in Portugal and Ireland at 2% and 0.5%, respectively. From end-2007 to end-2011, it rose in all four countries, by 3 percentage points in Greece and 3.5 to 4 percentage points in the other countries. Only in the case of Greece, the adjustment program required PSI. The implementation of the PSI program in early 2012 thus had significant consequences for the balance sheets of the Greek banks. The ensuing bank recapitalization focused only on the largest banks. Moreover, other financial institutions were strongly affected, in particular pension funds that held Greek government bonds and subsequently had to adjust pension payouts.

On the liability side, the weakening conditions of the Greek banking system triggered massive deposit outflows (chart 24). These were the result of customers' concerns about deteriorating balance sheets, fiscal sustainability, a possible debt haircut and the announcement of the PSI program. Deposit outflows started in 2010 and stabilized only after the final conclusion of the second adjustment program in March 2012. This added to financing strains in the banking system. Deposit outflows intensified again at end-2014. By contrast, deposits have been more or less stable in the other three program countries since 2013.

In Greece, Ireland and Spain, the calamities of the banking system – largely the result of weak governance in the pre-crisis period – also had important fiscal consequences. In Ireland for example, the fiscal deficit climbed to 33% of GDP in 2010 as a result of the recapitalization needs of the banking system.
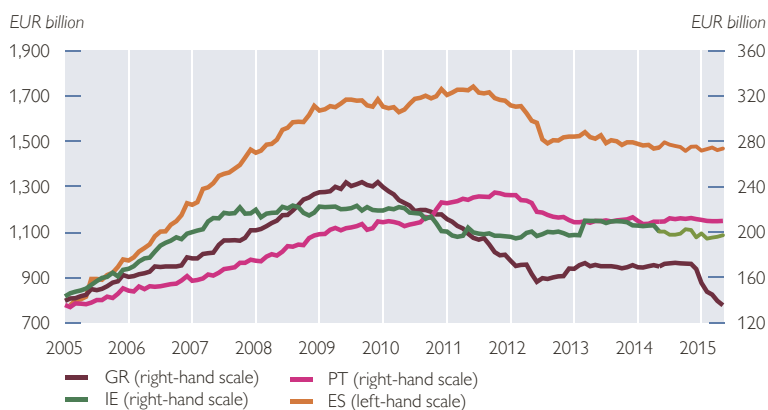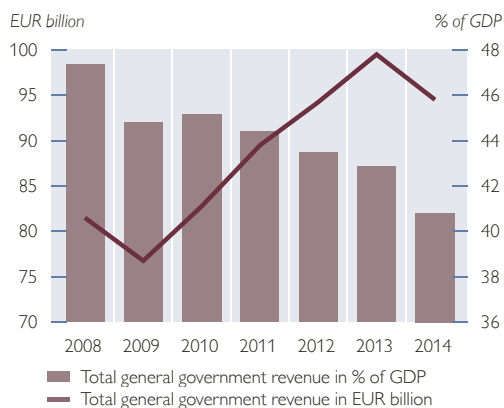
Chart 23

Bank nonperforming loans

% of total loans

Source: IMF, FSI Tables.

Chart 24

Deposits of general government and euro area private sector

EUR billion

Source: ECB.

Chart 25

Fiscal revenues of Greece

EUR billion   *% of GDP*

Total general government revenue in % of GDP
Total general government revenue in EUR billion

Source: Eurostat.

Chart 26

Privatization revenues

% of GDP, average 2010–2014
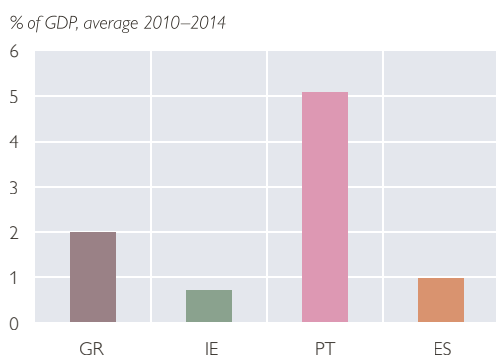
Source: Eurostat.

4.3 Slump in domestic demand made fiscal targets unrealistic

Given the depth of the recession it is not surprising that fiscal targets were not met in Greece. This is illustrated here by the example of the revenue side: While Greece managed to increase its revenue-to-GDP ratio, revenues declined steadily in absolute terms (chart 25). This disappointing outcome can be attributed to the recession and the increase in unemployment, which shifted consumption away from high-taxed durable goods toward lower-taxed necessities. The recession and the tax increase furthermore promoted tax evasion and tax losses caused by delayed payments. Measures against tax evasion were of limited effectiveness.

In addition, privatization revenue also fell far short of expectations. During the first adjustment program, privatization revenue had been estimated at EUR 50 billion for the period 2010–2015. However, of this amount, less than EUR 4 billion had materialized by 2014 (2% of GDP; chart 26). As compared to the other countries, this is still considerably more than in Spain or Ireland.

A simple decomposition of the change in the debt ratio into the contribution of nominal GDP growth and that of factors impacting on the nominal debt level[15] highlights the important role the recession played in Greece's failure to achieve its fiscal targets. The decomposition shows that 46 percentage points of the 68-percentage-point increase in the debt ratio between 2008 and 2014 can be directly attributed to the economic slump.[16] The contribution of the recession was only minor in the cases of Ireland, Portugal and Spain[17] (chart 27).

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[15] *The change in the debt ratio (=debt/GDP) can be decomposed into a contribution from the numerator, i.e. the change in nominal debt, and the denominator, i.e. the change in nominal GDP.*

[16] *Other factors that increased the debt ratio were interest rates (+29 percentage points), financial sector support expenditure (+20 percentage points) and the cumulated primary deficit (+18 percentage points). On the other hand, net privatization revenues and PSI together lowered the nominal debt level by more than 40 percentage points.*

[17] *While the debt ratio-increasing effect of nominal GDP growth in the period 2008–2014 amounted to 47 percentage points or 69% of the total rise in the public debt-to-GDP ratio in Greece, the debt ratio-increasing effect of nominal GDP growth was only 4% and 3% in Portugal and Spain, respectively. By contrast, in Ireland, cumulated nominal GDP growth was positive and had a significant lowering impact on the public debt ratio.*

Pressure on Greece to continue austerity is still ongoing. Under the third adjustment program, Greece agreed to target a medium-term primary surplus of 3.5% of GDP, with a fiscal path of primary balances of 0.5%, 1.75% and 3.5% in 2016, 2017 and 2018, respectively (chart 28). In other program countries, the relaxation of consolidation efforts is already visible. In Portugal, the primary balance will already reach its peak in 2015. This fiscal relaxation is likely to foster these countries' growth performance.

4.4 Numerous structural reforms with suboptimal timing and sequencing

Numerous structural reforms were implemented in Greece and other program countries with the aim of making the labor and product markets more flexible so as to improve labor market performance and price competitiveness. Actually Greece was particularly active in this respect: Greece scores highest in terms of the OECD's reform responsiveness rate indicator (share of OECD recommendations implemented from 2009 to 2014). It has succeeded in markedly improving its score in all key indicator categories (reforming labor and product market regulation, lifting barriers to enterprise foundation), as also indicated by chart 27.

Over the medium term, these reforms should support the growth potential of the economy. Many benefits are, however, contingent on the onset of economic recovery, which may explain why their success in Greece has been limited so far. During balance sheet recessions, structural reforms might even have a negative growth impact. Moreover, corruption and weak institutions may have delayed the implementation of many reforms.

However, to some extent the limited success of reforms in Greece may also be the result of the balance between different reforms. Chart 29 shows that in Greece the focus was primarily on labor market measures (substantial decline in the index of employment protection legislation) and to a lesser extent on product market re-

Chart 27

Contributions to change of debt ratios

Percentage points of GDP, difference 2014 minus 2008 values

- ▦ Contribution of nominal GDP change
- ▬ Contribution of nominal debt change[1]
- ◆ Debt ratio change, total
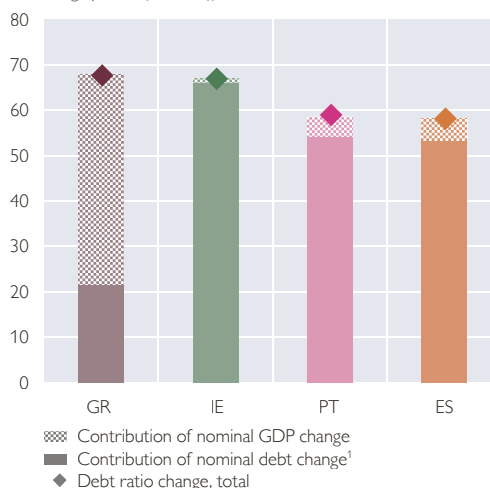
Source: European Commission, OeNB calculations.

[1] *In the case of Greece, the PSI decreased the nominal debt level in 2012, thereby reducing the contribution of nominal debt changes in this illustration.*

Chart 28

Primary balance

% of GDP
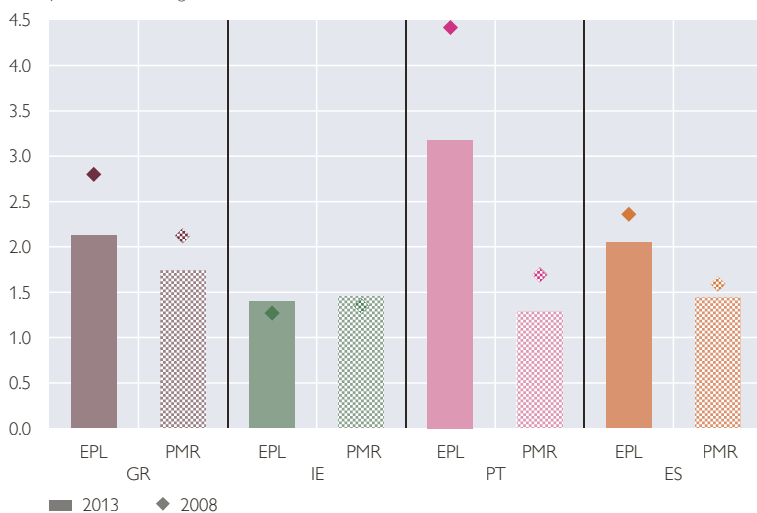

- ▬ GR   ▬ IE   ▬ PT   ▬ ES

Source: Eurostat.

Note: Values for 2015–2018 for Greece (triangles) are taken from the Eurogroup statement on the ESM programme for Greece of August 14, 2015.

Chart 29

Labor and product market reforms

EPL: employment protection legislation index
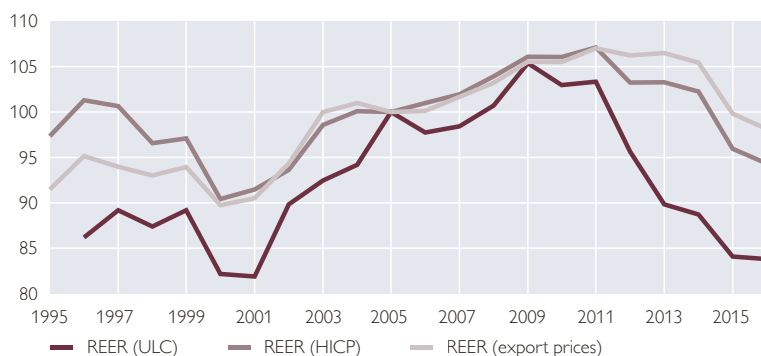*PMR: product market regulation index*

■ 2013 ◆ 2008

Source: OECD.

Chart 30

Real effective exchange rate (REER) in Greece

2005=100

■ REER (ULC) ■ REER (HICP) REER (export prices)

Source: European Commission.

Note: ULC: unit labor costs; HICP: Harmonized Index of Consumer Prices.

forms (decline in index of product market regulation). As a result, real average wages contracted by 13% between 2009 and 2013, much more strongly than in other program countries, while consumer and export prices, which are more relevant to competition, decreased by far less. This is visible in chart 30, which shows the evolution of the REER based on different cost and price measures. The competitiveness gain when considering export prices is only limited.

As a result of the unfavorable balance of measures implemented by Greece, the decline in real average wages as well as the sharp increase in unemployment acted as a drag on disposable incomes und thus on domestic demand, while the benefits for exports in terms of increased competitiveness were only minor. The story is similar in Spain, which, however, has a stronger export sector.

5 Conclusions

The comparison of the economic, financial and fiscal conditions in four EU-IMF program countries shows that the ongoing calamities of the Greek economy are the result of especially adverse starting conditions, but also of the huge consolidation efforts under Greece's first two adjustment programs, which were extremely stringent, frontloaded and based on a suboptimal mix of revenue-side, expenditure-side and structural policy measures. The austerity program seriously dampened domestic demand. The credit crunch resulting from large deposit outflows – linked to uncertainties about fiscal sustainability – and from PSI effects, and the suboptimal timing and sequencing of reforms aggravated the recession.

From today's perspective it appears evident, that the fiscal adjustment program imposed on Greece was not viable from the beginning and thus incapable of restoring market confidence. The weak initial state of the Greek economy, the high and rising level of public indebtedness, the mechanisms of a "self-fulfilling" liquidity crisis and the severity of the recession would have called for a well-tailored program off conventional routes. Such a program should have been based on feasible fiscal targets that only kick in when the economy has already reached a certain

level of recovery. Accompanying investment programs could then have rekindled domestic demand so as to earlier restore the necessary economic conditions for a successful implementation of fiscal austerity measures. Such a program might have had the potential to quickly restore financial market trust.

Overall the past years have taught us that it was important and right to support countries in economic and financial difficulties. The combined financial and monetary support at the euro area level, together with the enormous reform efforts in the countries themselves have helped to put the economies of Ireland, Portugal and Spain back on a sound footing. But experience with the Greek case has also taught us the limits of established forms of support. This calls for a reconsideration of the framework of rescue mechanisms and an increased emphasis on country-specific circumstances when designing adjustment programs.

References

Alesina, A. and S. Ardagna. 2009. Large Changes in Fiscal Policy: Taxes Versus Spending. NBER Working Paper No. 15438.

Baum, A., M. Poplawski-Ribeiro and A. Weber. 2012. Fiscal Multipliers and the State of the Economy. IMF Working Paper WP/12/286.

Brissimis, S. N., E. N. Garganas and S. G. Hall. 2014. Consumer credit in an era of financial liberalization: an overreaction to repressed demand? In: Applied Economics 46(2). 139–152.

Brissimis S. N. and T. Vlassopoulos. 2009. The Interaction between Mortgage Financing and Housing Prices in Greece. In: The Journal of Real Estate Finance and Economics 39(2). 146–164.

Byrne, St. and M. O'Brien. 2015. The Changing Nature of Irish Exports: Context, Causes and Consequences. In: Central Bank of Ireland. Quarterly Bulletin Q2/15. 58–72.

Coudert, V., C. Couharde and V. Mignon. 2013. On currency misalignments within the euro area. In: Review of International Economics 21(1). 35–48.

De Grauwe, P. 2015. What Governance for the Eurozone? Presentation at the workshop "Toward a Genuine Economic and Monetary Union" given on September 10, 2015. Vienna.

European Commission. 2010. The Economic Adjustment Programme for Greece. Occasional Papers 61.

European Commission. 2011a. The Economic Adjustment Programme for Ireland. Occasional Papers 76.

European Commission. 2011b. The Economic Adjustment Programme for Portugal. Occasional Papers 79.

European Commission. 2011c. The Economic Adjustment Programme for Greece. Fourth Review. Spring 2011. Occasional Papers 82.

European Commission. 2012a. The Second Economic Adjustment Programme for Greece. Occasional Papers 94.

European Commission. 2012b. The Financial Sector Adjustment Programme for Spain. Occasional Papers 118.

European Commission. 2013. The Economic Adjustment Programme for Cyprus. Occasional Papers 149.

European Commission. 2015a. Debt sustainability analysis. August 2015. http://ec.europa.eu/economy_finance/assistance_eu_ms/greek_loan_facility/pdf/debt_sustainability_analysis_en.pdf.

European Commission. 2015b. Memorandum of Understanding between the European Commission acting on behalf of the European Stability Mechanism and the Hellenic Republic and the Bank of Greece, 19 August 2015.
http://ec.europa.eu/economy_finance/assistance_eu_ms/greek_loan_facility/pdf/01_mou_20150811_en.pdf.

European Council. 2011. Euro Summit Statement. Brussels. October 26, 2011.
http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/ec/125644.pdf.

Giavazzi, F. and M. Pagano. 1990. Can severe fiscal contractions be expansionary? Tales of two small European countries. NBER Working Paper No. 3372.

Hondroyiannis G. and D. Papaoikonomou. 2015. When does it pay to tax? Evidence from state-dependent fiscal multipliers in the euro area. In: Economic Modelling 48. 116–128.

IMF. 2010. World Economic Outlook (WEO) – Recovery, Risk and Rebalancing. October 2010.

IMF. 2013. Staff Guidance Note for public debt sustainability analysis in market-access countries.
http://www.imf.org/external/np/pp/eng/2013/050913.pdf.

Koo, R. 2015. EU refuses to acknowledge mistakes made in Greek bailout. Nomura Research Institute. July 2015. http://ineteconomics.org/uploads/papers/Koo_Greece_Nomura.pdf.

OECD. 2013. OECD Economic Surveys – Greece. November 2013.
http://www.oecd.org/eco/surveys/GRC_Overview_Eng_2013.pdf.

Rapanos, V. T. and G. Kaplanoglou. 2014. Governance, Growth and the Recent Economic Crisis: The Case of Greece and Cyprus. In: Cyprus Economic Policy Review 8/1 (2014). 3–34.

Schneider, F., K. Raczkowski and B. Mróz. 2015. Shadow economy and tax evasion in the EU. In: Journal of Money Laundering Control 18(1). 34–51.

Schwab, K. 2014. The Global Competitiveness Report 2014–2015. World Economic Forum.
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf.

Sutherland, D., P. Hoeller and R. Merola. 2012. Fiscal consolidation: How much, how fast and by what means? OECD Economic Policy Papers No. 01. April 2012.

Is there an added worker effect? – European labor supply during the crisis

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This paper analyzes the responsiveness of an individual's labor supply to the job loss of his or her partner – the so-called "added worker effect (AWE)." While the bulk of empirical studies have utilized discrete choice models to identify its existence, we provide a macroeconomic indicator of the AWE in order to assess its economic significance for the labor force participation rate (LFPR). Our empirical analysis focuses on Europe in the period from 2002 to 2012, revealing that the AWE is negatively related to the business cycle and was particularly pronounced during the global financial crisis. While the LFPR increased by roughly 1 percentage point in Europe from 2009 to 2012, half of the effect is attributable to added workers. As our indicator is based on a rich micro dataset (European Labor Force Survey) we are also able to consistently present individual country results for nearly all EU Member States. Our analysis shows high increases in added workers in euro area countries that were strongly affected by financial market stress and in EU countries that experienced the bursting of housing bubbles. By contrast, we do not find an AWE in most Central and Eastern European countries.

The global financial and economic crisis that started in 2007–08 triggered a large deterioration in labor markets across Europe. Since then, the unemployment rate in the EU-28 has increased by roughly 4 percentage points, reaching a level of 10.8% in 2013. At the same time, and unlike the OECD average, EU labor force participation[2] kept increasing (see chart 1). In a recent report, the European Commission (European Commission, 2013) claims that apart from a higher participation of older people the presence of a so-called "added worker effect" (AWE) has contributed to the overall rise in labor supply. This concept refers to an increase in the labor supply of an individual if his or her partner becomes unemployed. Such an effect would indeed raise the overall participation rate and could therefore ex-

plain why labor supply in Europe did not fall during the crisis years. However, empirical results on the presence of an AWE in Europe are scarce and its impact on overall labor force participation has not been evaluated so far. Against this background, the present paper analyzes the responsiveness of an individual's labor supply to the job loss of his or her partner in European countries and tries to assess the magnitude of this effect during the crisis years. This allows evaluating whether the AWE has significantly contributed to

Chart 1

Labor force participation rate

% of the working-age population (aged 15 to 64)
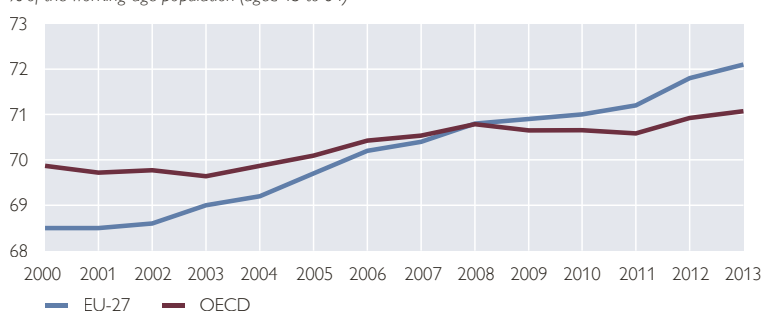
Source: Eurostat, OECD.

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[2] *The labor force participation rate measures the proportion of a country's working-age population that engages actively in the labor market, either by working or looking for work. Individuals that are without employment, have not been actively searching for a job in the last four weeks or are not available for work within the next two weeks are classified as inactive.*

the upward trend of the labor force participation rate (LFPR) observed in recent years.

The bulk of literature dealing with the identification of an AWE in Europe focuses on individual countries and provides rather inconclusive results (e.g. McGinnity, 2002, and Prieto-Rodriguez and Rodriguez-Gutierrez, 2010).[3] One notable exception is Bredtmann et al. (2014), who analyze the existence of the AWE based on the EU-SILC dataset comprising households in 28 European countries for the years 2004 to 2011.[4] By employing a discrete choice model, they reveal that women whose husbands become unemployed have a higher probability of entering the labor market and becoming full-time employed than women whose husbands remain employed. While this study certainly fills an important gap in the empirical literature on the AWE in Europe, it leaves open three interesting questions which are usually hard to address within a discrete choice framework. First, from the identified AWE one cannot infer the number of persons who are affected by this phenomenon. However, in order to evaluate the economic significance of the observed result it would be necessary to know by how much the participation rate has increased in response to the AWE, i.e. the share of men or women in the total working age-population that became active in the labor market after their partners had lost their jobs. Second, as labor markets across Europe were affected by the crisis in quite different ways, it is reasonable to assume that the magnitude of the AWE varies strongly across countries. This calls for an empirical approach that is able to provide comparable cross-country results. Third, according to theory, the AWE is a counter-cyclical phenomenon. This suggests that the amount of persons switching into the labor force as a response to the job loss of their partners varies largely over time. Hence, one needs to identify the effect on a yearly basis.

While so far most of the empirical studies have utilized discrete choice models to identify the existence of an AWE and therefore do not offer insights into the questions raised above, the European Commission (2011) has made an attempt to assess the macroeconomic impact of the AWE on labor force participation in Europe. More specifically, based on macro data the report reveals that an increase in male unemployment has been accompanied by a 0.2 percentage point increase in the labor force participation of married women with children.[5] However, the approach taken by the European Commission comes with one important drawback. The conclusions are derived under the assumption that the observed correlation is attributable to a substitution effect taking place within the same household and therefore do not necessarily reflect the presence of an AWE. More specifically, one has to assume that those women who have increased their labor supply share the same household with the men who became unemployed. Hence, regardless of

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[3] *Empirical studies of the added worker hypothesis mostly focus on the U.S. labor market and find only small magnitudes of this effect (Mincer, 1962; Heckman and MaCurdy, 1980; Lundberg, 1985; Stevens, 1997; Cullen and Gruber, 2000; McGinnity, 2002; Bentolila and Ichino, 2008).*

[4] *Prieto-Rodriguez and Rodriguez-Gutierrez (2003) also analyze the AWE on a cross-country basis. However, their sample is limited to a small set of European countries and spans the period 1994–1996. In line with previous work they find only a negligible AWE.*

[5] *Hence, the impact of the AWE on the overall participation rate would be rather negligible, especially if one bears in mind that the share of married women with children in the overall working-age population is small (21.5% in Germany in 2012).*

whether one wants to derive conclusions on a micro- or macroeconomic level, there is no choice but to consider the household level when analyzing the AWE.

Taking these factors into consideration, we derive a macroeconomic measure of the AWE for each EU Member State on a yearly basis (2002–2012), which we obtain by using micro data at the household level from the European Labor Force Survey (EU-LFS). Hence, we are able to capture the household perspective on the one hand, while assessing the macroeconomic importance of the AWE on the other hand. Applying the idea of synthetic cohorts, we simply count the number of couple households in each year in which one partner becomes active in the labor market after the other one has become unemployed. As we are not able to identify the same household at two different points in time (no panel data dimension), we provide an intuitive measure for the AWE by looking into the changes in the composition of couple households over time. Finally, we propose a rough approximation strategy to estimate the total number of added workers. As the EU-LFS provides the basis for official and harmonized European labor market figures, we can directly relate our measure to the official statistics of labor force participation. Finally, as our approach allows us to control for several individual and household characteristics, we consider not only (married) women as potential added workers, but also men who join the labor force due to their partner's job loss.

1 The added worker theory – macro implications derived from micro-based models

In order to be able to better classify the cross-country results of the AWE in Europe over the period 2002–2012, we derive several macroeconomic hypotheses. They are based on theoretical contributions to the literature on the AWE. Before we will elaborate on these hypotheses in detail, we want to briefly summarize them: the AWE is expected to (1) be negatively related to the business cycle, (2) have been particularly pronounced during the global financial crisis, notably in countries where labor markets were affected by the bursting of housing bubbles, and (3) vary strongly in magnitude across European countries due to e.g. heterogeneous welfare regimes and institutions.

Theoretical considerations of an AWE go back to the early work of Woytinsky (1942), according to whom married women increase their labor supply as a response to their husbands' job loss.[6] Since then several theoretical explanations have been proposed to model the labor supply decision of women within a household context. In the life cycle utility model, household members make their labor supply decisions as an integrated unit. Within such a setting, only permanent and unexpected shocks to the expected income stream (lifetime income) will induce inactive married women to transit back into the labor force (Becker and Ghez, 1975; Heckman and MaCurdy, 1980). Based on an empirically tractable life cycle model with perfect foresight and perfect capital markets, Heckman and MaCurdy (1980) present evidence that is consistent with the permanent income hypothesis. Using micro panel data for the U.S.A. (1968–1975), they show that transitory income shocks do not lead to a response in women's labor supply decisions, as lifetime income (wealth) does not change much. By contrast, permanent income shocks, e.g.

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[6] Note that the added worker theory is also applicable to households with gender role allocations that are not traditional, e.g. to labor supply reactions of men in response to a job loss of their female partners.

due to a married man's job loss, reduce women's value of leisure[7] and hence increase their labor supply. More recently however, life cycle models of female labor supply have come under criticism as several assumptions they are based on are regarded as unreasonable and responsible for results showing a very small added-worker effect or none at all (Starr, 2014; Martinoty, 2014).

Firstly, the conclusions of Heckman and MaCurdy (1980) rest on the assumptions of perfect foresight and certainty regarding the evolution of future income. This seems quite unrealistic, as unemployment duration and wage prospects in general are mostly unknown to labor market participants. If household members expect that the unemployment spell of the male breadwinner is a signal of worse re-employment and wage prospects in the future, also a transitory income shock due to his job loss might induce his partner to (re-)enter the labor market. In effect, various studies have shown that the income effect of unemployment is quite persistent and increases with the number of job losses (Hall, 1995; Stevens, 1997). Hence, income shocks are likely to induce women to increase their labor supply, even if they consider the shock to be transitory.

Secondly, life-time labor supply models often assume perfect capital markets without any liquidity constraints to households. According to these models, a transitory shock to family income will be completely compensated by borrowing or drawing on household savings. Put differently, the household's ability to smooth the family income on a level which will not cause the household members to change their preferred consumption levels during an unemployment spell of the household's head will not alter the labor supply decision of the partner. If access to additional financial support or government social benefits (e.g. unemployment benefits) offset large parts of the income loss, the partner's labor supply decision will probably remain unaffected by the other partner's unemployment. Bentolila and Ichino (2008) and Cullen and Gruber (2000) focus on the generosity of the welfare system in general and on the unemployment benefit system in particular and conclude that both are responsible for the outcome of a small AWE.

Given the above theoretical considerations, what results can we expect from a cross-country analysis of the AWE in Europe over the period 2002–2012? First, irrespective of whether women react to transitory or permanent income shocks by supplying additional labor units, we would expect to observe a negative co-movement between the business cycle and the AWE.[8] In times of economic downturns, which are usually accompanied by rising unemployment rates, it is likely that the fraction of women that enter the labor market to compensate for the income loss increases. Hence, we expect the AWE to be particularly pronounced during the global financial crisis, as we can presume that many European households were confronted with sudden job losses that significantly affected their household incomes.

Second, although the economic downturn in 2009 was very pronounced in almost all European countries, the impact of the global financial crisis on individual GDP growth rates and labor markets was quite different from country to country.

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[7] *This strand of the literature differentiates only between leisure time and paid work. We want to stress that the term leisure subsumes unpaid work, like childcare and housework.*

[8] *If women react to permanent income shocks only, the AWE is likely to be smaller. Either way, our empirical framework is not suited to evaluate the validity of these contrasting assumptions.*

Therefore it is very likely that the magnitude of a potential AWE also varies across countries. The observed differences in labor markets are partly attributable to developments in the real estate sector. Due to the bursting of housing bubbles in some countries, job losses were often concentrated in particular sectors, such as construction and housing service, while employment in market and nonmarket service sectors remained almost stable in all economies.[9] Hence, service sector employment might have provided additional earning possibilities especially for women if their partners lost their jobs. Therefore, it is presumable that the AWE was higher in countries that experienced large downturns in the construction sector.

Third, it is not only due to cyclical reasons that we would expect to see differences across European countries with respect to the magnitude of the AWE. Under the assumption of imperfect capital markets, the AWE is likely to be higher in countries where compensation payments are lower. Hence, the heterogeneity of welfare regimes across Europe strongly suggests a country-wise analysis of the AWE. Moreover, in case of imperfect foresight regarding future income the degree of labor market turnover in an economy might be a relevant macroeconomic determinant of women's decision to enter the labor market. In particular, in countries with very dynamic labor markets (i.e. with high (un-)employment flows) uncertainty concerning the partner's unemployment spell might be lower and therefore could reduce a woman's need to enter the labor market for precautionary reasons.

2 Empirical approach

In order to estimate the economic significance of the AWE we have to provide a measure that can be directly related to official population figures, such as the participation rate. Moreover, in order to assess whether the economic crisis has triggered a significant AWE we need to observe the chosen measure over time. Finally, as we expect the AWE to be quite heterogeneous in its magnitude across Europe, we need to set up a framework that allows a country-wise analysis. For these reasons we need to use a dataset which provides the necessary richness in terms of sample size and representativeness. To discuss the respective methodological issues we have divided this section into three parts: (1) the data, (2) a measure for the AWE, and (3) the estimation of the total number of workers that entered an economy's active labor market.

2.1 Data

We base our analysis on the micro data of the European Labor Force Survey (EU-LFS) provided by Eurostat, as it is the only available dataset that meets the requirements mentioned above. The dataset contains quarterly survey data from all EU Member States for a rich set of core variables that are related to individual and household characteristics and labor market outcomes. As the name already suggests, the survey was designed for the purpose of constructing labor market statistics and therefore forms the basis for all important and harmonized labor market

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[9] *According to the European Central Bank (2014, pp. 52), "stressed" economies such as Ireland, Greece, Spain, Italy, Cyprus, Portugal and Slovenia have experienced a much larger drop in construction employment than other economies.*

figures provided by the national statistical offices in Europe. It uses a quarterly address-based household sample and is designed as a repeated cross-section survey representative of several individual and household characteristics. As a result, the dataset is consistent with the population estimate of the participation and the unemployment rate, which is crucial for our analysis. The dataset includes cross-section population weights which allow us to obtain population figures at both the household and the individual level. This is a convenient feature as our analysis includes both dimensions. For the calculation of the added worker rate, we concentrate our analysis on couple households[10] which comprise two adults (aged 15 to 64, with and without children) living together in one residence. After a few data adjustments[11] we are left with an average of roughly 15,000 observations of couple households per year and per country. The dataset covers a group of 25 EU countries (EU-25), i.e. the EU-28 without Malta, Ireland and Sweden. The observation period ranges from 2002 to 2012.

Unfortunately, the EU-LFS exhibits one important drawback as the micro data provided by Eurostat do not include a panel dimension. It is therefore not possible to follow the same household over time. As a result, the identification of the AWE relies on the representativeness of the repeated cross-sections. Fortunately, this condition is met, as the EU-LFS was designed for this purpose. There is one dataset – the EU-SILC panel – that has similar features and includes a panel dimension, which at first sight might seem to be the best alternative data source for our purpose. This, however, is not the case for several reasons, which we want to outline briefly.

The EU-SILC panel comprises a much smaller sample in all European countries compared to the EU-LFS and therefore does not allow us to perform an annual and/or country-wise analysis. In the period 2007 to 2012, the average sample size of "potential added workers" in the whole of Europe (30 countries) in each year amounts to 81 observations in the EU-SILC panel. Hence, we are left with an average of 2.7 observations for each country. In addition, there are often no observations for small countries. Even if there were observations for all country-year pairs in each year, such a low number of observations would critically reduce the precision of population estimates drawn from sample statistics, irrespective of using weights. The "low" number of observations is related to the fact that the EU-SILC is not a survey specifically designed for labor market analysis on a macroeconomic level.[12] It is designed to be the reference source for comparative statistics on income distribution and social inclusion in the EU. Hence, the macroeconomic

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[10] Fortunately, Eurostat differentiates between "couple households" and "other households," which can consist of two adults that are not seen as cohabiting partners.

[11] We had to exclude some observations upfront to obtain a consistent data sample. A detailed documentation (including Stata code) is available from the authors upon request.

[12] For Austria, for example, the EU-SILC dataset consists of roughly 4,500 observations (households) yearly, while the LFS draws on 88,000 observations (households).

significance of the added worker phenomenon cannot be assessed from the EU-SILC dataset as it was not constructed for this purpose.[13]

2.2 A measure for the added worker effect

Typically, studies analyzing the AWE utilize panel data within a discrete choice framework (Mincer, 1962; Heckman and MaCurdy, 1980; Lundberg, 1985; Stevens, 1997; Cullen and Gruber, 2000; McGinnity, 2002; Bentolila and Ichino, 2008). This kind of approach is potentially very well suited for identifying a causal relationship between women's labor supply responses and the job loss of their partners. Theoretically, this framework would also allow the researcher to obtain population estimates of the AWE to assess the economic relevance of this phenomenon. However, such an empirical strategy is not yet feasible. First, as mentioned before, the EU-SILC dataset – the only dataset with a panel dimension – is not suited for providing reliable estimates of the number of added workers. Apart from that, using microeconometric methods such as discrete choice models to obtain estimates of macro variables would not be free from strong assumptions as far as the aggregation method is concerned. Although we are convinced that a well-chosen identification strategy to reveal a causal relationship has to involve some sort of panel data, we have to choose an alternative avenue to proceed in order to answer our research questions. As we aim to quantify a potential AWE in terms of its economic impact on the participation rate in each individual country of our sample, we propose a simple and quite intuitive macroeconomic measure at the aggregate level which is very much comparable to the measurement concept of the unemployment rate.

In each year t, the two members in a couple household can have labor market states i and j, which can either be employed (E), unemployed (U), or inactive (I, i.e. inactive, or outside the labor force).[14] Together, the states E and U can be subsumed under the state A (i.e. active, or within the labor force). Within the total number of couple households H_t, different compositions of couple households can be identified and written as fractions of all couples. We define $H_{UA|t}$ as the total number of couple households in which one partner is unemployed and the other is active.[15] Similarly, $H_{AI|t}$ is the number of couples with one active and one inactive partner. The remaining couples are those who are both either employed or inactive ($H_{EE|t}$ and $H_{II|t}$). For the analysis we assume, without loss of generality, that H_t remains constant and is normalized to unity. On the basis of these definitions, we can specify our proposed measure to be the added worker rate R_t, which takes the form:

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[13] Apart from the above mentioned points there are further reasons why the EU-SILC dataset is not appropriate for our analysis: (1) While the EU-LFS is the basis for official labor market statistics, the EU-SILC panel has not fully implemented official labor market definitions (e.g. unemployment), (2) self-defined labor market states in the EU-SILC may induce country differences due to different reporting behavior, (3) labor market transitions are observed only yearly in EU-SILC, which might induce a potential underreporting bias ("time-aggregation bias"), (4) circumventing the aforementioned problem by considering the available monthly labor market variables in the EU-SILC might hide different seasonal transition patterns and is therefore also not suitable for our purpose.

[14] Compulsory military service is reported as a separate labor market state. In line with the ILO approach, this state is counted as being in the labor force.

[15] In this formal definition, the order of labor market states within the household does not matter. However, we also calculated our results later in a gender-specific format, meaning that the unemployed member in $H_{UA|t}$ is the man, and the inactive member in $H_{AI|t}$ is the woman.

$$R_t = \frac{H_{UA|t}}{H_{UA|t} + H_{AI|t}} = \frac{H_{UA|t}}{\Omega_t} \tag{1}$$

We would find an AWE if a couple household switches from composition AI to composition UA, meaning that one member transits from an active state to unemployment, while the other member transits from inactivity to activity. In such a case, nothing changes in the denominator, but an additional couple household is counted in the numerator. This interpretation on the household level is similar to the unemployment rate on the individual level, which signals changes between employment and unemployment of an individual over time. Just as the unemployment rate will increase if people lose their jobs (thus transiting from E to U), we can find evidence for an AWE if the ratio R_t increases. Analogously to the interpretation of the unemployment rate, we can think of these changes in composition within couple households as aggregate evidence for an AWE, irrespective of whether the observed change in composition is really the result of the *same* households undergoing this change (i.e. if we observe the same household in $t-1$ and t). As the annual samples of households within the EU-LFS are random samples with respect to the population household distribution, we can relate these sample changes to changes in the population using the cross-section weights provided in the dataset for household purposes.[16]

Due to the fact that we compare stocks of two consecutive years, we are not able to assume that we identify a *gross* added worker flow between $t-1$ and t. Thus, our estimates for the number of added workers (outlined in the next subsection) have to be read as *net* added worker flows, net of couples flowing in the opposite direction. As a result, we may also report negative estimates for the number of added workers, meaning that fewer couples change from AI to UA than the other way round.

2.3 Estimation of the total number of added workers

In the previous subsection we proposed a measure to identify the AWE for each individual country. Yet, we still have to assess how many persons are affected by the AWE, i.e. we need to estimate the number of persons that became added workers from one year to the other.

In principle, changes in the couple household distribution can easily be mapped into changes in the number of people participating in the labor market. More specifically, the change in $H_{UA|t}$ from one year to the other would give us an estimate of the number of added workers. Assume, for example, an increase in R_t. This can be interpreted as an increase in $H_{UA|t}$ relative to $H_{AI|t}$ and is therefore related to one additional active person in the labor force per additional $H_{UA|t}$ household. Thus, the change $\Delta H_{UA|t} = H_{UA|t} - H_{UA|t-1}$ is, in principle, an estimate of the number of added workers.

However, this is only true if two issues can be resolved in an appropriate manner: (1) By mapping households into heads, we have to assume that all $\Delta H_{UA|t}$ house-

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[16] *Eurostat provides only individual weights, but pursues household analyses with the weights of the reference person.*

holds were in the group $H_{AI|t-1}$ in the year before;[17] and (2) $\Delta H_{UA|t}$ is – as already mentioned above – a net change of *UA* households, as households can flow between the states *UA* and *AI* in both directions. Hence, we only observe the net effect of both flows. Concerning the second issue, this paper leaves the reader without a solution but argues that the presented estimates of the AWE are lower bounds anyhow.

As far as the first issue is concerned we provide the following solution: In general, $\Delta H_{UA|t}$ can only be an estimate of the number of added workers if Ω_t remains constant. Only in this case we can be sure that a change in $H_{UA|t}$ is attributable to a change in $H_{AI|t}$.[18] Unfortunately, this assumption cannot be made as we observe a varying Ω_t over time ($\Delta\Omega_t \neq 0$), i.e. there are net flows between households in Ω_t and households that are not included in Ω_t, namely $H_{EE|t}$ and $H_{II|t}$. Suppose there is an increase in Ω_t ($\Delta\Omega_t > 0$). Hence, some $H_{EE|t-1}$ and $H_{II|t-1}$ households became either $H_{UA|t}$ or $H_{AI|t}$ households. As we are not able to trace individual households over time (no panel dimension), we are not able to allocate $\Delta\Omega_t$ to the respective household group without further assumptions. A simple allocation rule would be to assign $\Delta\Omega_t$ either completely to $H_{UA|t}$ or completely to $H_{AI|t}$. We do not consider these extreme cases as they represent very unrealistic scenarios. Nevertheless, we will deal with this issue in the robustness section. Instead, we propose a proportional allocation rule, which splits $\Delta\Omega_t$ in a $H_{UA|t}$ and a $H_{AI|t}$ part according to the added worker rate in year *t–1* (i.e. R_{t-1}). Hence, we assume that household flows into Ω_t (from outside of Ω_t) spread according to the relative size of the two household groups ($H_{UA|t-1}$ and $H_{AI|t-1}$) in the previous year. As a result, we propose the following *corrected* estimate of the number of added workers $\Delta\tilde{H}_{UA|t}$

$$\Delta\tilde{H}_{UA|t} = \left(R_t - R_{t-1}\right)\Omega_t = \underbrace{\left(H_{UA|t} - H_{UA|t-1}\right)}_{\Delta H_{UA|t}} - R_{t-1}\Delta\Omega_t \tag{2}$$

$$\tilde{H}_{UA|t-1} = R_{t-1}\Omega_t \tag{3}$$

Expression (2) has an intuitive meaning, as $R_t\Omega_t$ is the number of couple households with an unemployed and an active member ($H_{UA|t}$), whereas $R_{t-1}\Omega_t$ is the number for the respective households in the previous period by holding Ω_t constant (expression (3)). Hence, the difference $\Delta\tilde{H}_{UA|t}$ gives us the additional number of couple households in year *t* with one unemployed and one active member without chang-

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[17] *An equivalent to this assumption can be thought of in terms of the unemployment rate, with a change in the rate being related to a change in employment and unemployment. However, this is only true if one can assume that the net effect of entering or exiting the labor force is negligible.*

[18] *There might be one special situation where Ω_t stays constant but a change in $H_{AI|t}$ does not translate into a change in $H_{UA|t}$. This situation refers to specific shifts on the labor market that might occur most plausibly in an environment of decreasing labor force participation (such as in the U.S.A.). Consider the case where (1) an EE household changes into an UA household, (2) an UA household becomes an AI household and (3) an AI household becomes an II household. In such a case we would observe no AWE (R_t stays constant, $\Delta\tilde{H}_{UA|t} = 0$) although there is one added worker less (because of (2)). Hence, we would overestimate the AWE. Note that at the same time, we would underestimate the AWE when the presented transitions occur in the opposite direction. Although this constellation is logically possible, we do not think that this issue is empirically relevant in our context. If we assume – although it seems very unlikely – that every annual increase in II households since 2009 (in periods in which EE households decrease) has been associated with the above scenario we would overestimate the number of added workers in the EU-25 by less than 10%. Although this issue is empirically less relevant in our setting, it is a very important point that has to be considered when applying our calculation method. Therefore, we want to thank an anonymous referee for making us aware of this issue.*

ing Ω. As we only analyze couple households, one additional couple household directly relates to one additional person in the labor force.

After having estimated the total number of added workers, we are able to obtain an LFPR under the assumption that no AWE has taken place. For this purpose, we correct the observed LFPR by subtracting the added worker flow in each year from the actual observed change of the labor force starting in a specific base year. In this base year – here 2001 – we assume that there is no AWE ($\Delta \tilde{H}_{UA|2001} = 0$), but we can trace the added workers since then. Hence, the labor force L_s and the LFPR l_s for a specific year s *excluding* the added workers may be written as

$$\tilde{L}_s = \tilde{L}_{s-1} + \left(\Delta \mathrm{L}_s - \Delta \tilde{H}_{UA|s} \right) \; for \; s > 2001 \tag{4}$$

$$\tilde{l}_s = \frac{\tilde{L}_s}{WPOP_s} \tag{5}$$

where $WPOP_s$ is the working-age population in year s. In the year 2001, the observed LFPR $l_{2001} = \tilde{l}_{2001}$.

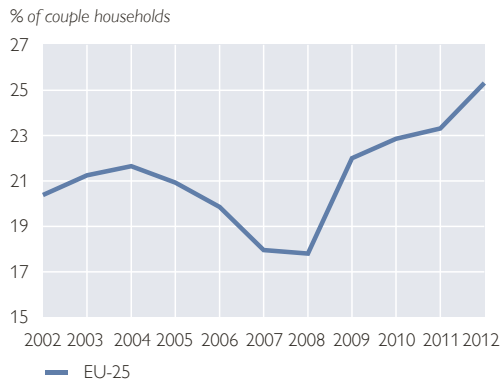## 3 The added worker effect in Europe

In chart 2 we plot the calculated added worker rate (R_t) for the EU-25[19] for the period 2002–2012. What becomes immediately apparent is the sharp increase in the added worker rate in 2009, when GDP contracted heavily in nearly all European countries. More specifically, R_t rose by more than 4 percentage points, which is by far the largest increase since 2002. This result implies that in a large number of couple households across Europe, one household member entered the labor force in 2009 while his or her partner was unemployed. Hence, by simply eyeballing the movement of R_t we can conclude that the economic crisis in 2009 has triggered a substantial AWE. Moreover, and beyond that, we observe a counter-cyclical reaction of the added worker rate not only in 2009. The path of R_t over the entire period suggests a negative correlation between the added worker rate and the business cycle.

In chart 3 we plot yearly changes of the added worker rate together with yearly GDP growth rates for the EU-25. Obviously, there is a clear relationship between both series as the AWE ($R_t - R_{t-1}$) seems to increase with decreasing GDP growth rates. Conversely, in times of accelerating GDP dynamics we observe a negative AWE. This resembles a situation in which one household member who had been unemployed in the preceding period became employed while the other, formerly active member dropped out of the labor force. The observed link between the AWE and the business cycle is also confirmed by the correlation coefficient, which amounts to –0.9 for the EU-25 aggregate.

In chart 4 we plot gender-specific contributions to the AWE for the EU-25 region. In particular, we want to assess whether the AWE (i.e. the yearly change in R_t) is driven by women entering the labor force due to their partner's job loss or

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[19] *EU-28 without Malta, Sweden and Ireland due to data limitations.*

Chart 2

Added worker rate (R$_t$) in Europe

% of couple households

— EU-25

Source: Authors' calculations.

Chart 3

The added worker effect and GDP growth in Europe

%   *Percentage points*

■ GDP growth in EU-27 (left axis) — Added worker effect in EU-25 (=yearly change in R$_t$)

Source: AMECO database, authors' calculations.

rather by men entering the labor market as a response to their partner's job loss.[20] As expected, the observed AWE in 2009 was mostly driven by female workers, which is consistent with the idea that women had to return back to work in order to compensate for the incurred loss in household income. Of the 4.2 percentage point change in the added worker rate in 2009, more than three-quarters are attributable to women (3.3 percentage points), while men's input amounts to less than 1 percentage point. Interestingly, in 2012, when Europe slipped back into recession, women's contribution to the AWE was again larger than men's, but by far less than in 2009. A potential explanation for this pattern might be the different nature of the downturns. While the recession in 2009 was partly accompanied by the bursting of housing bubbles, which mainly affected male workers in the construction sector, the recession in 2012 was the consequence of austerity measures triggered by a debt crisis that had no effect on a particular male- or female-dominated economic sector. This argument is supported by the observation that in 2009 the rise in the unemployment rate in the EU-27 was higher for men (by 1 percentage point), while in 2012 it was similar for men
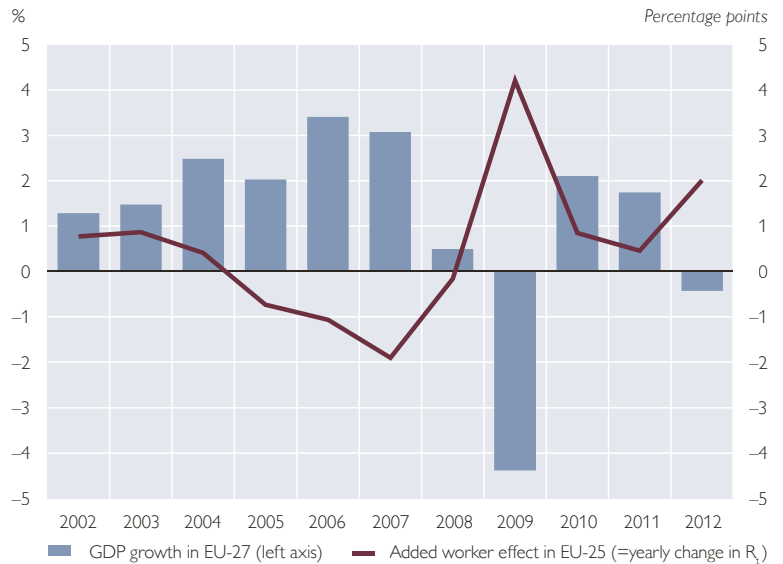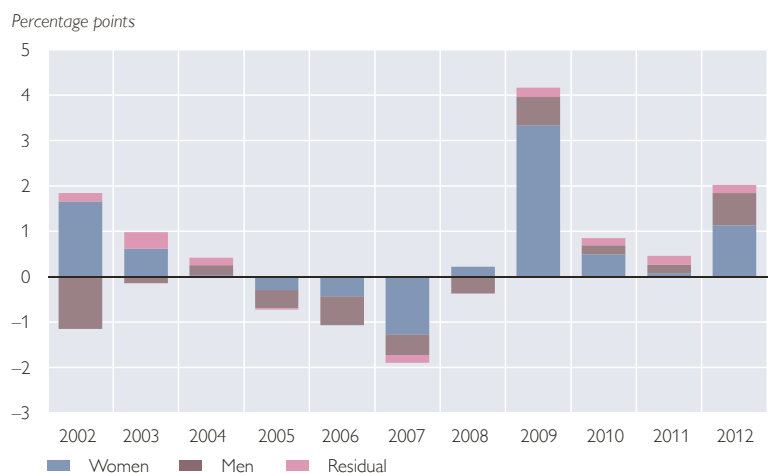
Chart 4

Contributions to the added worker effect in the EU-25

Percentage points

■ Women   ■ Men   ■ Residual

Source: Authors' calculations.

[20] *The respective contributions are calculated by decomposing ΔR_t using the fact that the gender-specific figures comprise only subgroups of the overall indicator. Thus, we may write*
$\Delta R_t = \gamma_t^f \Delta R_t^f + \gamma_t^m \Delta R_t^m + R_t^f \Delta \gamma_t^f + R_t^m \Delta \gamma_t^m - \Delta R_t^f \Delta \gamma_t^f - \Delta R_t^m \Delta \gamma_t^m = \gamma_t^f \Delta R_t^f + \gamma_t^m \Delta R_t^m + \varepsilon_t,$ *where f and m indicate female and male values, respectively, $\gamma_t^i = \Omega_t^i / \Omega_t$ where $i \in (f, m)$, and ε_t the residual, which captures the contributions of $\Delta \gamma_t^i$ and the joint effects.*

and women. Considering the development of the AWE over the entire period, the contribution of women to the overall variation amounts to roughly 70%. Hence, we can conclude that the AWE in Europe is largely a phenomenon that is driven by women switching into and out of the labor force depending on the employment status of their partners.

3.1 The added worker effect across European countries

One of the big advantages of the proposed added worker measure is that it can be calculated for each country in the sample, i.e. for a total of 25 EU Member States. Hence, we are able to compare the already presented results for the EU-25 aggregate with individual country results. First, in order to check the presence of an AWE as a response to the global financial crisis, we calculate the means of R_t for the pre-crisis period as well as for the period since the start of the crisis in 2009 for each country individually. Table 1 presents the figures indicating the difference in means between both subperiods ($\bar{R}_{2009–2012} - \bar{R}_{2002–2008}$) together with a one-sided t-test telling us whether sample means have increased significantly since the beginning of 2009.[21]

In the first column we present the differences between the sample means of the added worker rates irrespective of gender. Before discussing the individual country examples, we want to draw the reader's attention to the test result for the EU-25 aggregate. For the whole region we see a highly significant AWE, which confirms what we have already inferred from eyeballing the time series.

When we turn the focus on individual countries, our results show strong heterogeneity across EU Member States. More specifically, we identify a group of 13

Table 1

Test results for the added worker effect[1]

	Total added worker effect	Female added worker effect	Male added worker effect		Total added worker effect	Female added worker effect	Male added worker effect
EU-25	3.30***	4.08***	−0.53	DE	−4.35	−3.65	−6.16
EA-17	4.86***	5.69***	−0.44	GR	10.81**	10.63**	−0.89
Continental	−0.99	−0.18	−4.31	HU	6.25***	6.11***	5.55***
Mediterranean	12.27***	12.88***	−0.14	IT	2.44**	2.97***	−5.62
CESEE-6	−4.17	−3.10	−4.84	LV	17.13***	19.68***	8.89**
AT	0.37	0.58	−2.54	LT	13.29**	19.16***	3.74
BE	1.48	2.59**	−5.61	LU	6.11***	3.96***	1.47
BG	−2.31	0.44	−6.86	NL	4.17***	3.82***	2.08
HR	−4.24	0.60	−12.52	PL	−10.94	−9.06	−11.91
CY	10.58**	9.33**	4.32	PT	13.35***	15.11**	4.33**
CZ	−0.05	0.15	2.54	RO	0.93	−0.45	7.64***
DK	6.80**	8.31***	1.93	SK	−7.31	−6.77	−6.92
EE	11.41**	11.36**	7.22*	SI	5.01*	7.00**	1.05
FI	0.24	2.52**	−2.56	ES	22.37***	25.65***	1.09
FR	1.14	3.30***	−4.52	UK	5.40***	4.85***	7.03***

Source: Authors' calculations.

[1] One-sided t-test of equality in means of R_t, H_A: $R_{t1}<R_{t2}$. Asterisks denote significance at ***1%, **5%, *10%.

Note: Numbers correspond to differences in mean values of R_t ($\bar{R}_{2009–2012} - \bar{R}_{2002–2008}$). MT, SE and IE were dropped due to data problems; data for DK from 2003 onward; EU-25: EU without MT, SE and IE; EA-17: euro area without MT and IE. CESEE-6: BG, HR, CZ, HU, PL, RO. Continental Europe: AT, BE, DE, FR, LU, NL. Mediterranean countries: GR, ES, IT, PT, CY.

[21] *The t-test is a one-sided test where we assume that the variance in both subperiods is different from each other (Welch, 1947).*

countries with significantly different means of R_t. Amongst them there are countries like Spain, the United Kingdom, the Netherlands and the Baltic states, which experienced a sharp decrease in construction sector employment due to the bursting of a housing bubble (European Central Bank, 2014). Hence, as expected we observe a much higher AWE in those countries as compared to the EU-25 average. Moreover, what stands out clearly is that the euro area countries that were most strongly affected by financial market stress and therefore experienced the highest increases in their unemployment rates (i.e., Greece, Spain, Italy, Cyprus, Portugal and Slovenia) show a significant AWE as well. Also, as a result of the sovereign debt crisis, all of these countries slipped back into recession in 2012, which led to further job losses.

The group of countries with no significant AWE is quite heterogeneous. While many European countries with traditional "continental" welfare systems are found in this group,[22] also most of the Central, Eastern and Southeastern European (CESEE) countries have not experienced an AWE. Typically, continental European countries like Germany, Austria and France are characterized by large welfare states and can absorb much of a potential income shock within a household (see Esping-Andersen, 1990; or Bonoli, 1997). This is consistent with the findings of Bredtmann et al. (2014), who group their sample according to different welfare regimes and do not find any response of women's labor supply in the subgroup of continental European countries.[23] Compared to the EU average, the extent of the recession and the number of job losses have been much lower in those countries as well, which might also explain the absence of an AWE in continental Europe.

3.2 Comparing country aggregates: EA-17 versus CESEE-6

Interestingly, for the entire euro area (EA-17) the AWE is highly significant and even more pronounced compared to that for the EU-25. The reason is that the extent of women's (or men's) labor supply reaction in Mediterranean countries – notably in Spain but also in Portugal, Greece and Cyprus – more than fully compensates the nonexistent labor supply response in continental European countries.

While we observe an AWE for the EA-17, there seem to be no significant labor supply reactions within the CESEE-6 region, i.e. Central, Eastern and Southeastern European countries that are not part of the euro area yet. At first sight,

Chart 5

Added worker rate (R_t)

% of couple households

Source: Authors' calculations.

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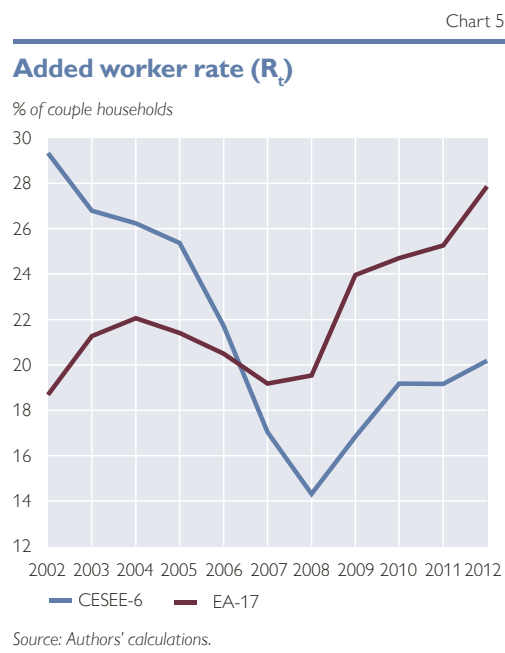
[22] For the sake of simplicity, we refer to these countries as "continental European countries" in this article.

[23] However, Bredtmann et al. (2014) do find a response at the intensive margin, i.e., women in continental Europe are more likely to change from part-time to full-time employment when their husbands become unemployed. Unfortunately, our measure does not control for this kind of behavioral change.

this is not surprising, given that Hungary is the only CESEE country experiencing an AWE. However, one might wonder why this is the case, given that, with the notable exception of Poland, all of these countries have undergone deep recessions (some of them double-dip recessions) accompanied by high increases in unemployment rates during the global crisis. Yet, in order to understand this outcome, we have to go back to the 1990s.
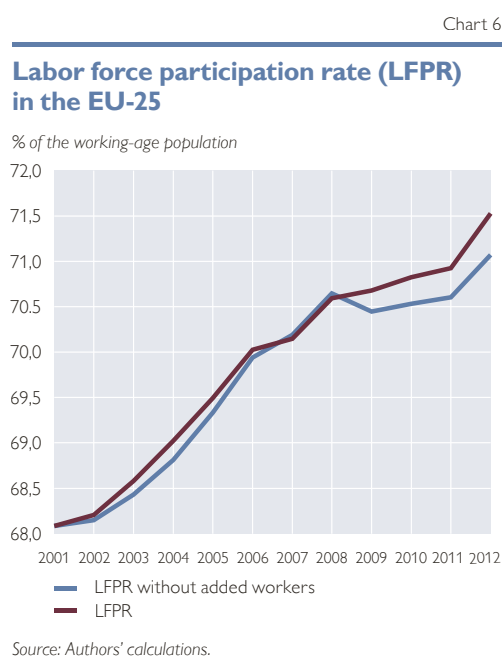
As shown in chart 5, the added worker rate was already very high in the CESEE-6 region at the beginning of the 2000s; it came down only gradually until 2008 and started to increase afterward. This pattern is likely to be associated with the economic development of the CESEE-6 countries in the second half of the 1990s. With the exception of Hungary, all countries in this group experienced recessions or at least economic downturns that were accompanied by strong increases in unemployment rates peaking around the turn of the millennium. Indeed, in the Czech Republic and in Romania – the only two countries for which we have data going back to 1997 – we observe that the added worker rate increased until 2000 before it started to decline gradually. Hence, as our statistical test compares the periods 2002–2008 and 2009–2012 it is not able to detect any AWE for the CESEE-6 during the crisis, although the added worker rate has been increasing in all of the countries since 2009. Interestingly, the lowest increase can be observed in Poland, which is the only EU country that did not experience a recession in this period. Again, this is consistent with the observation that the AWE seems to be counter-cyclical. To sum up, we can conclude that there have been labor supply responses in the CESEE-6 region as a reaction to the crisis. However, the increase in the added worker rate since 2009 was not that high that an AWE could have been detected.

3.3 The gender-specific added worker effect

In the remaining two columns of table 1 we report the results for the gender-specific added worker rates. What clearly stands out is that the AWE occurs primarily in the subgroup of female workers. Hence, what we have observed at the aggregate level is broadly reflected across countries as well, namely that the AWE is driven by women who become active on the labor market in order to compensate for the income loss of their partners. Accordingly, out of 25 EU countries, 17 experienced a significant female AWE.

4 The impact of added workers on labor force participation in Europe

Finally, we are left with the task of examining whether the magnitude of the increase in "added workers" is economically meaningful. More specifically, we are interested in the question whether the path of the LFPR would

Chart 6

Labor force participation rate (LFPR) in the EU-25

% of the working-age population

Source: Authors' calculations.

have been different if the identified added workers had not entered the labor market.

In chart 6, we plot two different LFPRs for the EU-25. The first resembles the actual rate (which follows the official definition by Eurostat), while the second is the LFPR corrected for the estimated added workers ($\tilde{l}_s$), i.e. the official rate from which we subtract (add) the amount of added workers that enter or drop out of the labor force year by year. Hence, the latter shows how the LFPR would have evolved, if there had not been any added workers in the period 2002–2012. What immediately becomes apparent is that in 2009 the plotted lines start moving apart in both regions, while the gap between them is much smaller in the period before. By summing up the yearly numbers of added workers since 2009, we can arrive at an estimate of the total amount of added workers who have entered the labor force as a response to the global financial crisis. According to our results, there were 1.7 million added workers in the EU-25 in the period 2009–2012. Expressed in terms of working-age population, the number of added workers amounted to 0.51%. Hence, while the labor force participation rate increased by 0.94 percentage points between 2008 and 2012, 0.51 percentage points can be attributed to added workers. For the euro area (EA-17) the impact of added workers on labor force participation in this period was even stronger: while labor force participation increased by only 0.81 percentage points, 0.60 percentage points are attributable to added workers (or 1.3 million people). In contrast, we find a much smaller impact for the CESEE-6 region, where out of the 1.78 percentage point change in the LFPR, only 0.35 percentage points can be assigned to added workers.

In table 2 we present cross-country results for the estimated number of total added workers since the crisis. In the previous subsection we have seen that there are large country differences as regards the presence of the AWE. This also applies to the number of added workers, where we observe a large variation across countries. While in Spain and Greece the LFPR would have been lower by more than 2 percentage points had there been no added workers, the impact of added workers on the participation rate in Austria or Finland is virtually absent.

4.1 Robustness analysis

As we cannot observe the gross flows of couple household members between labor market states over time we are not able to identify which parts of $\Delta\Omega_t$ (in equation 2) are related to $H_{UA|t}$ and $H_{AI|t}$. Therefore, we have allocated $\Delta\Omega_t$ at the rate of R_{t-1}. Although it seems intuitive that the gross flows depend directly on the relative size of the two groups in the previous year (R_{t-1}), this section tries to evaluate the sensitivity of our findings with respect to alternative allocations.

For this purpose we propose a simple stochastic simulation, in which the

Table 2

Added workers in % of the working-age population in the period 2009–2012

Country	Added workers	Country	Added workers
EU-25	0.51	GR	2.40
EA-17	0.60	HR	0.23
CESEE-6	0.35	HU	0.35
AT	0.11	IT	0.45
BE	0.33	LT	1.31
BG	0.41	LU	0.58
CY	1.38	LV	1.07
CZ	0.58	NL	0.54
DE	−0.45	PL	0.40
DK	0.53	PT	1.37
EE	0.58	RO	0.17
ES	2.74	SI	0.97
FI	0.18	SK	0.29
FR	0.36	UK	0.30

Source: Authors' calculations.

allocation parameter R_{t-1} is replaced by a stochastic parameter sampled from a known probability distribution. Hence, we redefine equation (2) in the following way:

$$\Delta \tilde{H}_{UA|t}^{(r)} = \Delta H_{UA|t} - \delta^{(r)} \, \Delta \Omega_t, \tag{6}$$

where $\delta^{(r)}$ is the rth random draw from a known probability distribution. Drawing R times, the central limit theorem ensures that the average of $\overline{\Delta \tilde{H}_{UA|t}} = \frac{1}{R}\sum_{r \in R} \Delta \tilde{H}_{UA|t}^{(r)}$ is asymptotically normally distributed with the average as the mean and $\tilde{\sigma}^2 = VAR[\Delta \tilde{H}_{UA|t}^{(r)}]$ even if $\delta^{(r)}$ is not drawn from a normal distribution. For simplicity, we assume $\delta^{(r)}$ to be either drawn from a uniform distribution $\mathbb{U}(0,1)$ or a normal distribution $\mathbb{N}(\bar{R}, SD[R_t])$ using the sample mean and standard deviation of the respective country aggregate under consideration.

Table 3 reports the results of this simulation exercise. Considering the uniform distribution, the simulated mean is lower than our added workers estimate due to the fact that the uniform distribution implies $\bar{\delta}=0.5$ and the actual values for R_{t-1} are always lower. The normal distribution concentrates more probability mass over the sample mean of R_t and is therefore closer. The confidence intervals show that the estimated numbers of total added workers are robust in that the effect on the LFPR remains strong. Even in the lower-bound case of the uniform distribution, considerable numbers of added workers have caused an upshift of the LFPR by 0.35 percentage points in the EU-25.

5 Conclusions

So far, the empirical literature on the AWE has concentrated on the identification of the labor supply decisions made by women as a response to their partners' job loss. This has been typically analyzed by employing discrete choice models. Indeed, the latest results for Europe show that women whose partners become unemployed have a higher probability of entering the labor market. Up to now, however, the economic significance of the AWE has been an open issue. In particular, the question whether the European LFPR has increased in response to the AWE has not been analyzed so far. This is related to the fact that discrete choice models are often not very well suited to assess whether the identified phenomenon is quantitatively meaningful. Hence, in order to address this open issue, we chose a different empirical strategy.

In this paper we derived a macroeconomic measure of the AWE for each EU Member State on a yearly basis by using micro data at the household level. Our results revealed a statistically and economically significant AWE within the EU-25 during the crisis period, which contributed considerably to the increase in the LFPR during the period 2008–2012. Moreover, we found strong country heterogeneity with respect to the presence of the AWE across European countries. This came as no

Table 3

Added workers in % of the working-age population in the period 2009–2012: a simulation

	Baseline	Uniform distribution			Normal distribution		
	Mean	Lower	Mean	Upper	Lower	Mean	Upper
EU-25	0.51	0.35	0.45	0.54	0.49	0.50	0.51
EA-17	0.60	0.40	0.52	0.64	0.57	0.59	0.60
CESEE-6	0.35	0.27	0.30	0.33	0.31	0.32	0.32

Source: Authors' calculations.

Note: Simulation with 1,000 draws, normal distribution with sample mean and standard deviation of R_t for the respective country aggregate. 90% confidence interval reported.

surprise, as we had expected to observe differences not least due to diverging business cycle developments across EU member countries. We presented some reasonable explanations for the cross-country heterogeneity, which, however, are certainly exposed to some limitations. In particular, it would be convenient to estimate the suggested relationships within a panel data model in order to test their statistical relevance. Identifying the potential macroeconomic determinants of the AWE, like GDP dynamics, the generosity of welfare regimes or the degree of labor market turnover, would certainly be an interesting field for future research. We think that the measure of the AWE provided in this paper would be a good starting point for such an analysis.

References

Becker, G. and G. Ghez. 1975. The allocation of time and goods over the life cycle. New York: Cambridge University Press for the NBER.

Bentolila, S. and A. Ichino. 2008. Unemployment and consumption near and far away from the Mediterranean. In: Journal of Population Economics 21(2). 255–280.

Blundell, R., P.-A. Chiappori and C. Meghir. 2005. Collective Labor Supply with Children. In: Journal of Political Economy 113(1136). 1277–1306.

Bonoli, G. 1997. Classifying Welfare States: a Two-dimension Approach. In: Journal of Social Policy 26(3). 351–372.

Bredtmann, J., S. Otten and C. Rulff. 2014. Husband's Unemployment and Wife's Labor Supply - The Added Worker Effect across Europe. In: Ruhr Economic Paper No. 484. 1–49.

Cullen, J. and J. Gruber. 2000. Does unemployment insurance crowd out spousal labor supply? In: Journal of Labor Economics 18(3). 546–572.

Esping-Andersen, G. 1990. The three worlds of welfare capitalism. Cambridge: Princeton University Press.

European Central Bank. 2012. Euro area labour markets and the crisis. Structural Issues Report. October.

European Central Bank. 2014. Monthly Bulletin October.

European Commission. 2011. Labour Market Developments in Europe, 2011. European Economy.

European Commission. 2013. Labour Market Developments in Europe, 2013. European Economy.

Hall, R. E. 1995. Lost Jobs. Brooking Papers on Economic Activity. Volume 1.

Heckman, J. and T. MaCurdy. 1980. A life cycle model of female labor supply. In: Review of Economic Studies 47(1). 47–74.

Lundberg, S. 1985. The Added Worker Effect. In: Journal of Labor Economics 3(1). 11–37.

Martinoty, L. 2014. Intra-Household Coping Mechanisms in Hard Times: the Added Worker Effect in the 2001 Argentine Economic Crisis. Unpublished.

McGinnity, F. 2002. The Labour Force Participation of the Wives of Unemployed Men: Comparing Britain and West Germany Using Longitudinal Data. In: European Sociological Review 18(4). 473–488.

Mincer, J. 1962. Labor Force Participation of Married Women: A Study of Labor Supply. In: Universities National Bureau of Economic Research (ed.). Aspects of Labor Economics. Cambridge: Princeton University Press. 63–106.

Prieto-Rodriguez, J. and C. Rodriguez-Gutierrez. 2003. Participation of married women in the European labor markets and the "added worker effect". In: Journal of Socio-Economics 32(4). 429–446.

Prieto-Rodriguez, J. and C. Rodriguez-Gutierrez. 2010. The added worker effect in the Spanish case. In: Applied Economics 32(15). 1917–1925.

Starr, M. 2014. Gender, added-worker effects, and the 2007–2009 recession: Looking within the household. In: Review of Economics of the Household 12(2). 209–235.

Stephens, M. J. 2002. Worker Displacement and the Added Worker Effect. In: Journal of Labor Economics 20(3). 504–537.

Stevens, A. 1997. Persistent Effects of Job Displacement: The Importance of Multiple Job Losses. In: Journal of Labor Economics 15(1). 165–188.

Welch, B. 1947. The generalization of "student's" problem when several different population variances are involved. In: Biometrika. Vol. 34. 28–35.

Woytinsky, W. 1942. Three aspects of labor dynamics. Washington, D.C. Social Science Research Council.

Event wrap-ups and miscellaneous

Conference on European Economic Integration 2015: Boosting EU Competitiveness – The Role of the CESEE Countries

Compiled by
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In 2015, the annual Conference on European Economic Integration (CEEI) of the *Oesterreichische Nationalbank (OeNB)* was organized as a joint event with the Conference on the Future of the European Economy (CFEE) of *Narodowy Bank Polski (NBP).* The joint conference took place in Warsaw on October 15 and 16, 2015, and focused on long-term European growth prospects and competitiveness.[2] Around 260 participants from 30 different countries attended the CEEI/CFEE 2015 to listen to presentations by high-ranking representatives of central banks, international organizations and academia and join the ensuing discussions. The conference offered a wide range of interesting insights e.g. that demographic developments as well as uncertainty regarding migration prospects, future employment contracts and progress in European integration all constitute challenges to economic growth in Europe. Convergence as a central element of European integration has created external imbalances, which manifest themselves today also as weaknesses in the tradable sector. Countries must now identify new sources of sustainable productivity growth. FDI has been a driving force of productivity growth – especially in the Central, Eastern and Southeastern European (CESEE) economies – but needs to be directed more toward the research and development (R&D) sector. Innovation – which is not tantamount to the promotion of high-technology sectors – is important in all segments of the economy, especially in the traditional economic sectors. Coherence between domestic economic policies and the promotion of outward economic orientation is important; successful internationalization strategies build on sound domestic linkages between firms.

In their opening remarks both *NBP* President *Marek Belka* and *OeNB* Governor *Ewald Nowotny* praised the benefits of merging, into a unique joint event, their institutions' well-established event series, which both have a clear focus on future economic integration in Europe.

Belka emphasized that in spite of the numerous challenges Europe is facing today, the EU is not at an adverse turning point. Over the last decades, integration has contributed to the quality of life Europeans enjoy today and has been a major driver of transition, development and convergence in CESEE. But, as Nowotny pointed out, the deepening of the European integration process has not kept pace with EU enlargement. Both speakers thus agreed on two major challenges for Europe:

First, Europe needs a growth spurt to fight unemployment and public debt. Productivity is key for both growth and competitiveness, requiring the right mix of innovation, labor market and product market policies. Nowotny emphasized

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[2] *The conference proceedings will be published by Edward Elgar Publishing Ltd. in the course of 2016. Presentations and papers, information about the speakers and the conference program are available at www.nbp.pl.*

that growth also crucially depends on demand. The Eurosystem uses the available policy instruments to support domestic demand.

Second, Europe needs to reduce the uncertainty about the future of monetary integration. The completion of monetary union needs to follow the recommendations of the *Five Presidents' Report.* Several good ideas are already on the table but will need to be developed in more detail and will have to pass the reality check. A fiscal and economic policy framework that combines risk reduction and risk sharing is the precondition for long-term competitiveness.

FDI has an important role in fostering competitiveness

In her keynote address, Professor *Beata Javorcik* from the *University of Oxford* focused on the special role and characteristics of multinational corporations (MNCs). Accounting for a major part of global R&D expenditure, MNCs are important drivers of innovation in the host economies and hence also creators of knowledge. Javorcik convincingly argued that the extent to which this knowledge is transferred to the host economy depends on the competitiveness of local firms. Based on her own research, she showed that such knowledge transfers are not confined to the industry in which an MNC is active – in fact, MNCs have an incentive to prevent their knowledge from leaking to their competitors – but that supplying industries benefit from knowledge spillovers as well. Hence, the market entry of MNCs leads to significant and positive productivity effects and thus stimulates economic growth. Javorcik concluded that investment promotion should focus on sectors that are likely to generate linkages and on R&D activities, where agglomeration effects play an important role especially in CESEE. Links to local suppliers can e.g. be promoted by facilitating access to ISO certifications, while market entry barriers for MNCs can be overcome through active communication.

Knowledge spillovers, product quality, and meeting consumers' demand make firms competitive

The first conference session dealt with the various dimensions of competitiveness. In his introductory words, *OeNB* Executive Director *Peter Mooslechner* cautioned against what Krugman called the "dangerous obsession trap:" the danger of maximizing competitiveness at the cost of living standards through a race to the bottom in terms of production costs. Today, quality aspects increasingly dominate over price and cost factors in the competition for market shares.

The first speaker, *Alain de Serres,* Head of the Structural Policies Surveillance Division at the *Organisation for Economic Co-operation and Development (OECD),* saw productivity as the key channel through which structural reforms can raise growth. While productivity has decelerated in advanced countries since the early 2000s, in the CESEE region it started to slow down only as the crisis unfolded and investment dropped markedly. A high degree of trade openness may be a driver of productivity but is not sufficient to move the CESEE countries up the value chain. Furthermore, productivity growth will crucially depend on knowledge spillovers from exporting firms to domestic firms. These can be supported by policies that encourage knowledge transfers, including pro-competition reforms, policies that promote the collaboration between private firms and universities and policies that increase the mobility of labor and skills.

Hylke Vandenbussche, Professor at the *Katholieke Universiteit Leuven,* focused on four key observations in the recent trade literature. The first has become known as the "Spanish paradox:" the countries with the highest unit labor cost (ULC) growth are often very successful exporters. One key for solving this puzzle is found in microdata: exporters are more innovative, more productive and have lower ULC growth. The second observation is that demand-side factors such as quality or tastes are often underestimated. Focusing primarily on quality is a way to escape the price competition arising from countries such as China or other Asian economies. The third observation is that company size is an important economic factor: countries with a high share of large firms are more successful exporters. The policy advice that follows from this observation is to abolish barriers that prevent firms from growing. The fourth observation is that exporting firms also tend to be importing firms. Blocking imports through trade protection thus lowers exports and therefore competitiveness. Overall, Vandenbussche concluded that it is essential to understand firm-level heterogeneity in order to understand macroeconomic competitiveness.

Julia Wörz, Lead Economist at the *OeNB,* joined the previous speaker in emphasizing the importance of nonprice factors of competitiveness. This helps solve the puzzle that real appreciations are often associated with market share gains. Wörz proposed decomposing the changes in market shares into price and cost factors, nonprice factors, structural factors and factors related to the integration of exporters into global value chains. This latter factor only becomes apparent when the focus switches to the domestic value added included in exports. While this change in perspective does not alter the central observation that northern, western and southern EU Member States have been losing or, at best, maintaining global market shares while eastern EU Member States have been gaining market shares, it changes our understanding of the underlying driving forces: gains in price competitiveness added positively to market share changes in all EU Member States, while gains in nonprice competitiveness by countries in the CESEE region arose largely from the fact that they process higher-quality inputs. Hence, integration into global values chains is beneficial for catching-up economies, but detrimental for advanced economies. Moreover, the results presented show that none of the EU Member States managed to adapt to changes in global demand.

Innovation is necessary in all sectors of an economy

The second session, chaired by *Ardo Hansson,* Governor of *Eesti Pank,* focused on the interaction between innovation policy and competitiveness. In his introductory statement, Hansson emphasized that innovation is a key factor in boosting productivity growth and crucial for the convergence process of the CESEE countries. He highlighted that participation in a monetary union calls for decisive policy action aimed at increasing productivity. Innovation is a way to avoid the need to undergo a painful internal devaluation process.

Dan Breznitz, Director of Academic Research at the *University of Toronto,* outlined that innovation requires a different logic of policymaking since the outcome of innovation projects as well as their potential markets are not known in advance. Therefore, the only possible solution for policymakers would be to stimulate economic agents to produce and define innovative products and processes. However, Breznitz outlined that this might require time and a "trial and error" strategy that

includes admitting and correcting wrong policy decisions. As an example he cited the acquisition of skills, both through formal education and firm-specific training.

Uri Gabai, Director at the Office of the Chief Scientist of Israel's *Ministry of Industry, Trade and Labour,* presented Israel as a success story of 40 years of continuous innovation policy. He emphasized the Israeli government's clear signal that innovation was the only viable business model. Another key policy was the government's strategy to stick to the fundamentals while closely analyzing market failures. Gabai concluded that innovation policy works, but that it needs a systematic approach, room for experimentation and patience.

Gilles Rabin, Associate Researcher at the *University of Grenoble,* underlined that innovation rests on three major pillars: a clear focus, consumer choice and political choice, including what he referred to as "digital colonialism." As for the first, only 13 European regions currently invest more than 4% of their GDP in R&D. Rabin suggested that innovation policy should focus on the best performers and thus apply "negative" discrimination. Furthermore, as consumers drive the market, policymakers should foster and accelerate the actual implementation of innovations in production. In addition, he stressed that often the policy choice is to support foreign companies operating in the respective country, which he considered to be a very alarming development. Finally, Rabin called for a common European response to "digital colonialism" by focusing on the development of a European innovation policy that holds against the U.S. equivalent and subsequently linking this European innovation policy to the respective production processes.

In the ensuing discussion, the speakers outlined that clear strategies are needed to promote innovation activity. In addition, business environment regulations should be improved to allow for smooth market entries and exits. Moreover, increasing competitiveness would require stronger support for the best universities, regions and firms; however, the discussants concluded that these measures would be rather unpopular.

Labor market policies must take account of the social dimension

Mehmet Yörükoğlu, Deputy Governor of *Türkiye Cumhuriyet Merkez Bankası,* opened the session on labor market issues by pointing out that a country's labor market situation reflects its competitiveness. He stressed the structural nature of unemployment in a range of countries and asserted that a reallocation of employment was needed to reduce the current skill mismatch without damaging society and economic growth.

Detlef Eckert, Director at the *European Commission,* outlined the importance of cost competitiveness and the need for adjustments at the cost level. He emphasized the value added of new evidence from microdata and called for translating micro-evidence into macropolicies. He stressed the efforts the European Commission made in the framework of the European Semester and outlined the currently debated issue of "flexicurity" in the recently published *Five Presidents' Report,* i.e. the combination of a more flexible labor market and effective active labor market policies. In addition, the development but also the extraction of skills would be intrinsic to the EU's competitiveness agenda. He concluded by saying that the European Commission is currently taking steps to further boost competitiveness by actively promoting the establishment of national Competitiveness Boards in parallel to developing the social dimension of Economic and Monetary Union (EMU).

Michał Gradzewicz, Director at the Economic Institute of *Narodowy Bank Polski,* touched upon the connection between employment and productivity growth by comparing several CESEE EU countries and the euro area. He related the slowdown of productivity growth, especially its trend, to the educational and contractual structure of the labor force. In particular, he outlined that in the CESEE countries the increase in productivity was not accompanied by a strong increase in tertiary-educated employment. In contrast, in selected euro area countries, productivity increases went broadly hand in hand with an increase in the employment of persons that have completed secondary education. Moreover, he stressed that employment creation in CESEE mainly came from an increase in temporary contracts (only exception: Hungary), while employment on the basis of permanent contracts grew in the euro area.

Peter Sinclair, Professor at the *University of Birmingham,* contrasted the accumulated loss of employment in the 19 euro area countries with the gain of employment in the non-euro area Member States. He also pointed out that the Philips curve relation – a negative link between inflation and unemployment – was still observable in the United States and to some extent in the smaller euro area countries but not in the euro area as a whole. Claiming that a fiscal devaluation is possible in EMU despite failures in fiscal policies in recent years, he suggested a combination of employment subsidies and VAT increases to restore euro area competitiveness. He concluded that increasing fiscal sustainability in the EU would require a profound reform of Member States' social security systems so as to foster labor mobility.

In the ensuing discussion, participants touched upon the importance of introducing single-labor contracts to prevent a segmentation of the EU labor market – highly paid workers in stable jobs and workers in low-paying precarious positions – and to enhance labor market flexibility. Moreover, the problem of noninterference between the envisaged national Competitiveness Boards at the EU level and the national wage-setting authorities was debated.

CESEE countries benefit from sound fundamentals

The session on structural policies was chaired by *Marina Wes,* Country Manager with the *World Bank.* She stressed that European demography is at a turning point, which calls for urgent structural policy interventions.

The first speaker, *Zsolt Darvas,* Senior Fellow at *Bruegel,* touched upon the effectiveness of EU economic governance for both the euro area periphery and CESEE. While highlighting their similarities in terms of the magnitude of capital inflows, he also pointed toward differences such as the composition of capital inflows, the degree of misalignment between wages and productivity growth, and the share of foreign bank ownership. In his view, structural policies would be one of the possible strategies to increase economic growth in both regions. However, he questioned the effectiveness of both pre-crisis economic governance by the European Commission and the current framework of the European Semester.

Daniel Gros, Director at the *Centre for European Policy Studies,* looked into both the external and internal dimension of competitiveness. He pointed out that with respect to external competitiveness the enlarged EU maintained its position both in the manufacturing and services sectors. However, despite large structural reform programs, EU economic performance has deteriorated, implying challenges

for internal competitiveness. He concluded that the careful design and implementation of structural reforms is the key to their success.

Brian Pinto, former Senior Advisor at the *World Bank,* defined structural policies as the residual which is addressed when policymakers have exhausted monetary, fiscal and financial policies. With the aim of defining an appropriate strategy for structural policies, he reviewed several recent policy papers. Overall, the economic advantage of the United States is the result of structural reforms that were implemented before the global economic crisis. In addition, the lack of fully centralized and coordinated fiscal and financial institutions impeded the effectiveness of structural reforms in the EU. He concluded that the CESEE countries could benefit from relatively good governance and institutions and a limited debt overhang; however, they should focus on adopting best practices.

Michał Rubaszek, Economic Advisor at the Economic Institute of *Narodowy Bank Polski,* discussed how EU structural policies are related to the adoption of the euro in CESEE. He focused on two key issues to define the success of euro adoption, namely a country's institutional set-up and the fundamentals in place. As for fundamentals, the CESEE countries enjoy a relative advantage e.g. due to lower wages and a well-trained labor force. However, he also saw ample room for improvement and for fostering innovation in CESEE by enhancing and using the current and future EU institutional infrastructure. He highlighted that the EU CESEE countries assigned to adopt the euro should be assured that the benefits of euro adoption outweigh the costs of giving up the current exchange rate flexibility.

In the discussion following the presentations, participants outlined that structural policies should not be expected to deliver too much, as they seemed to have touched only upon the surface so far. In addition, they highlighted that structural policies should be complemented by more focused fiscal policies in the EU and more balanced country-specific recommendations by the European Council.

The euro played a stabilizing role during the crisis

In his dinner speech, *OeNB* Governor *Nowotny* discussed monetary policy challenges before, during and after the global financial crisis, pointing out that the pre-crisis period had been characterized by policy mistakes. One major mistake was that convergence criteria did not sufficiently refer to real economic developments and aspects of sustainability. Low real interest rates added to excessive spending and contributed to diverging economic developments in the euro area countries.

The effects of these policy failures fueled the pace of the crisis. In this period, EMU proved to be an essential element of stabilization. The key contribution of European monetary policy was to sustain the availability of financing for the banking system. The benefits were significant not only for the euro area, but also for its neighboring countries: After all, access to financing and financial know-how had been a major driver of the convergence process in CESEE and a key factor for competitiveness.

Now that the crisis has been mastered, nobody doubts that the euro is here to last. The remaining major challenge for the euro area is to fight unemployment. This requires primarily measures to stimulate growth and productivity, but also labor market policies to ensure the quick transmission of economic growth to

employment. According to Nowotny, in our approach to employment we need to stick to the "European way," by combining aspects of flexibility and security instead of following a hire and fire approach.

Persistent current account imbalances need to be addressed

In his keynote address, *Michael Landesmann,* Director of Research at the Vienna Institute for International Economic Studies (wiiw), highlighted some major challenges for the European integration process related to competitiveness. The process of economic integration has led to rising external imbalances in Europe's low- and medium-income countries. According to Landesmann, these imbalances reflect a persistent weakness of the tradable sector in these countries and may thus become a stumbling block for future integration. There are various problems in resolving these imbalances, e.g. past de-industrialization trends, agglomeration trends (which induced diverging patterns of industrialization between the central European manufacturing core and peripheral countries), an insufficient policy focus on the tradable sector and a conflict of policy instruments (e.g. between competition policy and industrial policy). He further claimed that the role of the real effective exchange rate in this context is not always well understood. A real appreciation may reflect previous good trade performance rather than drive future trade performance. Further, in the traditional measurement of real effective exchange rates, quality improvements are ignored. Taking a forward-looking stance, he identified the following areas as important determinants of competitiveness: moving toward products with higher income elasticity, building sufficient export capacity and diversifying export structures to reduce vulnerabilities.

In the general discussion, Professor Landesmann advocated a combination of industrial policies at the national and the EU level similar to structural funds that helped build production capacities. He agreed that the problem is symmetric, i.e. the necessity to reduce imbalances is equally high for surplus countries such as Germany as it is for deficit countries among the low- and medium-income countries. With regard to the rising importance of global production networks, which may require a diversified service sector and a reorientation toward a "tradable sector policy" instead of a narrowly focused industrial policy in manufacturing, he referred to the strong interconnectedness between manufacturing exports and tradable services.

Challenges of a complex global economy

The last conference session focused on the impact of global production networks or global value chains (GVCs). As the session's moderator, *OeNB* Director *Doris Ritzberger-Grünwald,* pointed out, about 60% of world merchandise trade these days is trade in components. Hence, the international fragmentation of production and a country's integration in these global production networks is a major factor of competitiveness.

Filippo di Mauro, Senior Advisor at the European Central Bank (ECB), presented selected results from the ECB's Competitiveness Research Network (CompNet), which he chairs. Modern, complex structures of the world economy require new data that map these complexities: Traditional trade figures are increasingly inaccurate and plagued by double counting, as they ignore the distinction between a country's exports and the country's value added in those exports.

Empirical research shows that foreign value added in exports is increasing over time and is highest in euro area and Chinese exports. Yet, trade integration remains mostly regional, especially within the euro area. The new value added data open new perspectives on the effects of trade on the respective economies: With respect to employment effects, he explained two new concepts, GVC income and GVC jobs. While Germany's gross exports of manufactured goods doubled between 1995 and 2008, the sum of German value added in those export goods (=GVC income) grew only by 7%. In contrast, exports often create jobs in service industries related to exporting (GVC jobs), and these jobs are usually not ascribed to export activities. With respect to shock transmission, di Mauro noted that GVC integration has both accelerated and dampened the transmission of shocks. He concluded by stressing the fact that increases in intra-euro area external imbalances in value added terms are considerably smaller than in traditional gross trade terms.

Robert Koopman, Chief Economist at the *World Trade Organization (WTO),* recalled that the theoretical concepts used to analyze trade in value added do exist, but that finding appropriate data sources can be a problem. He emphasized the importance of investigating not only the global, but also the domestic fragmentation of export production. After all it is firms that actually trade and not countries. This is a field we know even less about, which means we risk missing a big part of the picture. Presenting some of his research results, he confirmed that traditional measures of competitiveness – such as the revealed comparative advantage – can be very inaccurate and often ignore the contribution of domestic services to final exports. He also explained that the recent drop in the elasticity of global trade vis-à-vis global income can be largely explained by the difference between gross and value added in trade. In conclusion, he re-emphasized the importance of investigating the contribution of domestic firms to export production as their contribution can play an even more important role for competitiveness than the integration of exporters into global production networks.

Linda Yueh, Fellow in Economics at the *University of Oxford,* focused her presentation on China, an economy which is strongly integrated into GVCs. She noted that China's economic growth has been extremely uneven since the start of transition and that an important part of China's catching-up was attributable to the country's opening-up to trade. As such, China's WTO accession in 2001 had a major impact and boosted its share in global trade. In her view, China is now near the middle-income trap, a stage which only 17 countries have surpassed in the post-World War II period and which Chinese policymakers are determined to overcome. According to her calculations, total factor productivity has added between 30% and 40% to Chinese growth, a third of which stems from human capital and another third from innovation in the broader sense. However, a large part of China's innovation has to be attributed to imitation. In line with the previous speaker, Yueh postulated that China had already been industrialized before opening up to trade. China's controlled and targeted internationalization was therefore successful; in addition it was quick, very controlled and strictly targeted. For example, FDI was used to produce positive spillovers and acquire know-how in special exporting areas, which fostered upgrading. Yueh concluded by highlighting China's role in international trade. As the biggest player in global trade since 2008, the country has a substantial impact on trade dynamics. Since 2003

China has pursued an active outward FDI strategy based on the rapid growth of Chinese firms or on the acquisition of foreign firms. In Yueh's view, China continues to build its growth strategy on exports and will probably deploy more aggressive internationalization strategies in the future.

In the general discussion, Pinto referred to the rather skeptical view of GVC trade presented in the *IMF's* most recent *World Economic Outlook,* which states that much of global trade is still traditional one-way trade. With respect to newly arising policy implications, Koopman called for a careful analysis of domestic impediments to integration (such as barriers to entry or exit of firms or inadequate regulation).

"Crystal Ball" panel on CESEE's contribution to euro area and European growth

The "Crystal Ball" panel is the traditional closing session of the CFEE series and is, by definition, future oriented. The moderator, *Boštjan Jazbec,* Governor of *Banka Slovenije,* stressed in his opening statement that the CESEE countries have done better after the crisis than the EU average. At the same time, they are struggling to overcome legacies, reflected in particular in enterprises' trouble to obtain sufficient financing. Looking forward, he highlighted the question whether the CESEE countries will develop into forerunners or will be rather dedicated followers of other EU countries.

Bas B. Bakker, Senior Regional Resident Representative of the *International Monetary Fund (IMF),* stressed that as a result of ongoing convergence, there is no longer a clear divide between East and West in regional EU income levels. In the past 15 years, convergence benefited from sharply increasing employment rates, particularly where the working-age population has been on the decline. In parallel, productivity has gone up, but still remains relatively low. In the future, there will be less room for further increases in employment rates. Instead, productivity growth and further structural transformation will be key. From 2016 to 2030, population aging will imply that the working-age population will shrink faster than the total population. Hence, strong growth of productivity (GDP per working-age person) will be necessary to achieve a moderate growth of GDP per capita, which in turn implies an even lower growth rate of total GDP. Drawing a comparison between growth in Japan and the U.S.A., he pointed out that it was only through far higher labor productivity growth that Japan could achieve a GDP per capita growth that was roughly similar to that in the U.S.A. from 2000 to 2015, while Japan's total GDP growth was substantially lower than in the U.S.A. Assuming an annual labor productivity growth of 2.25% in CESEE in the period from 2016 to 2020 (like in the period from 2011 to 2015) as well as an unchanged employment rate would imply GDP per capita growth of around 1.5% and headline GDP growth of 1% only.

Boris Vujčić, Governor of *Hrvatska narodna banka,* stressed that within-sector reallocation toward more productive firms can generate substantial aggregate productivity gains also in CESEE countries, which are characterized by a large number of low-productive firms and very few high-productive firms. From his point of view, structural reforms are the most promising path to spur growth. However, significant economic gains of these reforms emerge only in the medium to long run. Apart from product and services market reforms and labor market-

related education and tax reforms, growth could be supported through improvements in the quality of public finance.

Iain Begg, Professorial Research Fellow at the *London School of Economics and Political Science,* commented that CESEE countries' outward FDI may become increasingly important in the future, implying changes in CESEE's position in cross-border supply networks. It is time to rethink sectors and specializations in order to fully benefit from the knowledge economy, and to exploit sources of innovation beyond R&D. As one key area of uncertainty he stressed brain drain, which often leads to "brain squandering" due to overqualification. In policy terms, he insisted that structural reforms should increasingly focus on the promotion of growth.

In the ensuing panel discussion, Bakker pointed to easy access to venture capital as one major reason why Apple and Google emerged in the U.S.A. and not in the EU. Moreover, he highlighted the need to avoid boom-bust cycles and procyclical policies in order to achieve sustained catching-up growth. The audience raised the question to what extent there is a tradeoff between productivity and social cohesion. Begg underlined the importance of "social investment," citing the Nordic countries where early investment forestalls future problems.

In his closing remarks, NBP Governor Belka emphasized how rich the CEEI/CFEE 2015 had been in terms of presented data, questions raised, suggestions and recommendations. Expressing his thanks to the OeNB for the smooth and successful cooperation, he pointed out that the conference's success was largely attributable to the joining of forces of NBP and the OeNB. With reference to the conference title, "Boosting EU competitiveness," he explained that, in order to achieve a boost in competitiveness, it is important that the EU uses its resources more efficiently. The European economy cannot grow only through exports. For improving allocative efficiency, the EU, including the CESEE Member States, would be well advised to look at the example of the Nordic countries when it comes to labor market policies and the United States when it comes to the financing of venture capital.

Toward a Genuine Economic and Monetary Union

Workshop hosted by the OeNB in Vienna on September 10 and 11, 2015

Andreas Breitenfellner, Lukáš Veselý[1]

While the monetary dimension of Europe's Economic and Monetary Union (EMU) was fully implemented in 1999, the economic dimension is still work in progress. But how much pooling of decision making is really necessary? And, how should such a shared stewardship be designed to ensure a smoothly functioning EMU? In early September 2015, international experts discussed these questions at a workshop organized by the Oesterreichische Nationalbank (OeNB) in cooperation with the Euro50 Group, which drew more than 180 participants.

The starting point for the debate was the Five Presidents' Report "Completing Europe's Economic and Monetary Union" released in mid-2015, in which the presidents of the European Commission, the European Council, the Eurogroup, the European Central Bank and the European Parliament presented a long-awaited road map for deepening EMU. To put EMU on a more solid foundation, they propose gradually complementing today's economic and fiscal rules with further sovereignty sharing within common institutions. This process encompassing two stages in which the four areas economic, financial, fiscal and political union should be strengthened is slated to culminate by 2025 in the establishment of a euro area treasury for collective decision making.

Through the lens of economic theory, the workshop looked at various EMU reform proposals, covering, for instance, compensatory mechanisms for stabilizing Member States' economies during asymmetric shocks, productivity-oriented wage-setting rules, financial integration, shared debt management, golden rules for public investment and a budget for the euro area. Almost all of the 20 presented papers had been selected from a pool of around 50 high-quality submissions received in response to a call for papers. Notwithstanding some disagreement on the desirability or feasibility of several proposals, a consensus emerged about the need for a fiscal and economic policy framework that combines risk reduction (discipline) and risk sharing across the euro area countries (solidarity).

What governance for the euro area? (keynotes)

In his opening remarks, OeNB Governor *Ewald Nowotny* stressed that – on the eve of the EU finance ministers' first debate of the Five Presidents' Report – both the topic and the timing of the workshop were right on target. In his view, the fact that the so-called sovereign debt crisis occurred in Europe – by far not the only indebted region – was connected to EMU's incomplete institutional setting. The four pillars of the Five Presidents' Report zero in on exactly such unsolved issues. While progress on banking union has already been remarkably smooth, achieving a fiscal union will be more challenging as budgetary policies are the crown jewels of parliamentary democracy. Nowotny cautioned that the proposed reforms will meet with a reality that varies greatly among Member States, warning against alarmist voices that call for immediate radical change under the threat of broad

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failure. In the EU, change takes time as it could be vetoed by any single Member State. In light of this important fact, Nowotny commended the step-by-step approach taken by the authors of the Five Presidents' Report, who wisely distinguish between two stages: (1) changes within the existing legal framework and (2) a long-term perspective involving a Treaty change.

Paul De Grauwe, Professor at the London School of Economics and Political Science (LSE), pointed out that the sovereign debt crisis originated from a classical boom-bust story. A misdiagnosis of government profligacy, however, led to excessive austerity in the periphery without fiscal stimulus in the center, which resulted in the euro area's economic stagnation. De Grauwe identified three design failures of EMU that, following the euro's introduction, weakened its members. First, a monetary union with national fiscal policies exacerbated "national animal spirits." Second, monetary and fiscal stabilizers that had existed at the national level were stripped away from the Member States. Third, the interdependence of illiquid sovereigns and illiquid banks had led to a diabolical loop. De Grauwe sketched three areas where EMU is in need of a redesign. First, the ECB should act as a lender of last resort; as a matter of fact, its readiness to buy sovereigns' debt in times of illiquidity has already proved spectacularly successful in calming bond markets. Second, coordination of macroeconomic policies should aim at redressing both losses in competitiveness and asset bubbles. The EU's current Macroeconomic Imbalance Procedure (MIP), however, is being implemented in an asymmetric way by putting deficit countries rather than surplus countries under pressure, which creates a deflationary bias and contributes to stagnation. Third, a budgetary union is needed to pool national debt by shifting the balance of power back from financial markets to the states and public institutions; and to create an insurance mechanism that transfers resources to countries hit by negative economic shocks, while taking moral hazard duly into account. There clearly is a tradeoff between budgetary union and flexibility; but flexibility is unpopular and inappropriate in cases of demand shocks. According to De Grauwe, the current integration fatigue has, by default, given rise to a hegemonic political union, where creditor nations rule, i.e. impose their economic policy preferences on debtor countries. Since such a union is unsustainable, a democratic process of political unification is necessary.

Otmar Issing, former Member of the Executive Board of the ECB and President of the Center for Financial Studies, noted that some elements of banking union have already fueled intense controversy. In his view, the Five Presidents' Report does not make a case for a fully-fledged fiscal and political union, but only for steps in this direction, including a macroeconomic stabilization fund and a euro area treasury. Issing maintained that a partial transfer of national fiscal sovereignty must rely on arrangements for democratic accountability, legitimacy and institutional strengthening. A number of institutional arrangements presented in the said report, such as closer cooperation between the European Parliament, national parliaments and the European Commission, are indeed moves in the direction of a political union. However, limited transfer of fiscal sovereignty combined with limited democratic legitimacy is a dangerous path to follow. Issing warned that limited democratic legitimacy will prevail as long as the transfer of fiscal sovereignty is not based on changes in national constitutions.

Completing Europe's EMU – where do we stand? (policy panel)

Representatives of all institutions that contributed to the drafting of the Five Presidents' Report as well as two renowned academics gave insights into the various underlying perspectives and strategies in a policy panel.

Othmar Karas, Member of the European Parliament, advocated EMU deepening with a strengthened political union as its final goal. EU citizens do not accept intergovernmental quick fixes outside the Community framework as legitimate options. Input and output legitimacy must be improved by, among other things, transparent and clear rules, a European Monetary Fund instead of the "Troika," stronger control by the European Parliament and improved accountability. While commending the Report, he insisted that the proposed competitiveness authorities require binding rules to be taken seriously.

Jose Eduardo Leandro, Principal Adviser in the European Commission, explained the rationale behind the Five Presidents' Report: The incompleteness of EMU fuels doubts about its long-term viability, which in turn hampers the euro area's short-term recovery. Slow relative price adjustments and insufficient national fiscal stabilizers make some risk sharing indispensable. The Report is sequenced to strengthen first private-sector risk sharing (financial union) and later public risk sharing, as further structural convergence will emerge. In mature currency unions like the U.S.A., 80% of shocks are smoothed across states, one-third of which through fiscal channels, and the rest via financial, product and labor markets. Europe, in contrast, manages to smooth only 40% of shocks.

Frank Smets, Counsellor to the President of the ECB, said that the ECB has been playing a visible role in managing the crisis since 2010, thanks to its independence, supranational setup and clear mandate. However, the functioning of EMU came under question when other players delivered too little too late, given that democratic decision making takes time. EMU should move from a rules-based framework to institutional decision making. The proposal to create a treasury for the euro area points in that direction, requiring appropriate legitimacy and accountability. The banking union needs a Single Restructuring Fund (SRF) with a fiscal backstop and a European Deposit Insurance Scheme (EDIS), and should be complemented by a capital markets union (CMU) to strengthen private risk sharing. Weakening the banks-sovereigns link would reestablish market discipline over sovereigns by making the no-bailout rule credible.

Christina Jordan, Economic Advisor in the Cabinet of the President of the European Council, said that the Five Presidents' Report strikes a balance between ambition and realism. The starting point is already strengthened economic governance notwithstanding implementation lags. Looking at Member States' developments had made it clear that the timing was just not right to reach agreement on a Treaty change. Therefore, the President of the European Council focused on the completion of banking union to weaken boom and bust cycles.

Niels Thygesen, Professor at the University of Copenhagen, argued that the Five Presidents' Report goes beyond political realism and overemphasizes the need for solidarity. While banking union might be a good substitute for fiscal union, the former nevertheless requires some fiscal backup, at least temporarily, until contributions from the financial sector will have been built up. However, he questioned the need for deposit insurance against the backdrop of a credible bail-in rule. Expressing uneasiness about fiscal integration, he noted that already the Delors

Committee (of which he had been a member) had failed to agree on a proper aggregate fiscal stance. He urged more short-term generosity, but, at the same time, emphasized long-term self-reliance.

Waltraud Schelkle, Professor at LSE, registered an unprecedented divorce between the pillars of EMU luckily tackled by the Five Presidents' Report by advocating a minimum of joint fiscal stabilization. She preferred talking about risk sharing rather than solidarity just as insurance against accidents is needed rather than generosity in cases of self-inflicted harm. Risk sharing should be mandatory and cover unspecified contingencies, as the next crisis might not originate from the banking system. She suspected that some of EMU's design flaws actually were flaws by design as creditors benefitted handsomely from the southern overheating while avoiding most of the costs of the subsequent damage. Correcting these flaws implies a fiscal underwriting of the banking union, promoting diversity instead of the home bias in sovereign bond markets, and reinsuring the SRF by a credit line from the European Stability Mechanism (ESM), which should have a banking license, as only unlimited capacity would discourage speculators.

The debate that ensued covered various issues, such as the importance of a clear long-term vision for investors, the interpretation of "structural" convergence, the rationale of insurance to limit contagion, the issue of how to gain sovereignty by sharing it, the danger of sovereign debt restructuring in the absence of a safe asset, the role of macroprudential policies to check imbalances, the need to streamline the European Semester and the urgency to start a proper public debate.

EMU governance (paper session 1)

Jakob de Haan, De Nederlandsche Bank, presented a paper titled *"Reforming the Architecture of EMU: Ensuring Stability in Europe."* The euro area crisis was not primarily driven by public debt but by diverging financial cycles and a lack of provisions for crisis resolution. Capital inflows to peripheral countries that were mainly used for nonproductive investment (housing) were mistaken for desirable financial integration. The subsequent rescuing of the financial sector impaired public finances more than a normal downswing in a business cycle would have. Although all major weaknesses of EMU had already been addressed at the EU level, clear imbalance criteria and enforcement instruments were still missing. De Haan outlined his preferred solution, namely to replace the Stability and Growth Pact (SGP) by Eurobonds and to give the European Council, rather than national sovereigns, the power to borrow in times of crisis. This would ensure compliance and allow for tackling asymmetric shocks with only a limited transfer of sovereignty.

Marek Dabrowski, Center for Social and Economic Research (CASE) in Warsaw, presented a paper entitled *"Monetary Union and Fiscal and Macroeconomic Governance."* He suggested that further fiscal and political integration in EMU should be guided by a cost-benefit analysis based on the theory of fiscal federalism. Applying the principle of subsidiarity to EMU, he identified potential benefits only in the centralization of deposit insurance and bank resolution. In his view, monetary unions could exist with no or limited fiscal union, as the latter faces political constraints anyway. Within EMU, neither market discipline nor fiscal rules seem to work – despite strengthened governance arrangements – due to a collective action

problem, as many countries exceed the 3% deficit threshold. His preferred solution would therefore be the restoration of the no-bailout rule, supplemented by clear and consistently enforced fiscal rules.

Economic union (paper session 2)

Stefan Ederer, Austrian Institute of Economic Research (WIFO), presented his paper *"Macroeconomic Imbalances and Institutional Reforms in the EMU."* Diverging unit labor costs within the euro area made the core relatively competitive vis-à-vis the periphery, with France in the middle. At the same time, domestic demand in the core made only a negligible contribution to growth, while it played a key role in the periphery. EMU exacerbated these trends through the real interest rate channel, a common exchange rate, the common monetary policy and uncoordinated wage setting. During the euro area crisis, deflationary adjustment and fiscal consolidation were applied in the south, but were not counterweighted by adequate policies in the north. An expansionary adjustment strategy would require a banking union, a lender of last resort, debt mutualization, coordinated wage policies, and an industrial policy in the south financed by the north.

Andrew Watt, Macroeconomic Policy Institute (IMK) in Düsseldorf, presented his paper *"Quantitative Easing with Bite: A Proposal for Conditional Overt Monetary Financing of Public Investment."* Conventional monetary policy has nearly been exhausted and fiscal policy too hamstrung by rules to deal with the current shortfall in aggregate demand. When other methods fail to prevent Europe's "Japanization," monetary financing, often regarded as a mortal sin, is an effective way to raise nominal GDP and reduce debt ratios. Its inherent risks could be avoided by careful policy design, and by giving the ECB the final say. Currently, central bank balance-sheet losses are not critical and inflation clearly is too low. Restricting asset purchases to secondary markets would ensure compliance with the Treaty ban on direct monetary financing. Given today's high fiscal multipliers, the ECB should purchase bonds issued by the European Investment Bank and, thus, finance new projects that reflect the Europe 2020 strategy.

Financial union (paper session 3)

Plamen Iossifov, International Monetary Fund, presented a paper titled *"Opting into the Banking Union before Euro Adoption."* In his view, banking union, which internalizes cross-border externalities in supervision, is still incomplete, as it lacks a common fiscal backstop and a common deposit guarantee scheme. A payoff matrix of opt-in by non-euro area countries includes upsides, such as access to the future common backstop, information on parent banks, an improved perceived quality of supervision, and better home-host coordination. The downsides are loss of control over cross-border intragroup flows, inadequate representation in the governance of the Single Supervisory Mechanism (SSM) and the Single Resolution Mechanism (SRM) as well as no access to ECB liquidity and direct bank recapitalization. Unequal treatment in banking union structures and foreign bank dominance fuel potential opt-in members' skepticism about joining. Hence, giving opt-ins a greater role in the SSM and providing them with access to the ECB's foreign exchange swap lines would raise the attractiveness of an opt-in.

The paper presented by *Paweł Smaga,* Narodowy Bank Polski, dealt with a similar question: *"(When) Should a Non-Euro Country Join the Banking Union?"* The

main benefits of joining banking union are increased stability, trust and quality of supervision, improved home-host relations, a reduction of the bank-sovereign nexus, lower compliance costs as well as centralized liquidity and capital management. The flip side are no representation in the Governing Council of the ECB and no access to ECB backstops (as both are restricted by the Treaty), dominance by home country interests, complicated decision-making processes within the SRM, the insufficient size and mutualization of the SRF, the absence of a single deposit guarantee scheme and no exit option. Treaty changes could improve this unfavorable balance. However, the opt-in decision also depends on ownership in banking assets, the capacity of national resolution funds, previous crisis experiences and the perspective of euro adoption. Hence, according to Smaga, Poland, the Czech Republic and Hungary have basically adopted a wait-and-see position, while Romania, Bulgaria and Denmark seem to be more willing to opt in.

Fiscal union (paper session 4)

This session was chaired by *Edmond Alphandéry,* former French Finance Minister and chair of the co-organizing Euro50 Group, who identified the need for a sovereign insolvency procedure as a key lesson from the Greek crisis.

Ad van Riet, ECB, presented his paper entitled *"Market-Preserving Fiscal Federalism in the European Monetary Union."* In theory, EMU was built on a "holy trinity" of a single market, a single currency and a single monetary policy combined with strong market discipline and a hard budget constraint. In practice, however, markets largely ignored diverging country fundamentals and hunted for easy yield in peripheral economies. In response to the euro area crisis, Member States adjusted their economies amid growing risks of policy renationalization and market fragmentation. While the governance framework for the euro area has already been enhanced to date, it still leaves some uncertainty about the integrity of the euro area. Hence, there is a need for a higher level of market-preserving fiscal federalism that builds on a hierarchy between European institutions and national governments and is subject to democratic control. This could foster sustainable economic convergence toward an optimal currency area.

Margit Schratzenstaller, WIFO, presented her paper *"Sustainable Tax Policy beyond the Tax Ratio for the EU as a Core Element of a 'Fiscal Union'."* Tax policy has, in her view, considerable potential to promote sustainable development along the lines of the Europe 2020 strategy. However, recent trends have been rather unfortunate, with the share of taxes on labor increasing and the share of taxes on capital (and "sin" taxes) decreasing. Growing mobility of capital, goods and labor calls for EU-wide cooperation through coordination or harmonization of tax policies. Schratzenstaller highlighted that the long-standing proposal for a Common Consolidated Corporate Tax Base and more recent initiatives for country-by-country reporting should be complemented by minimum corporate tax rates (two-tier, favoring new Member States still undergoing a convergence process) as well as minimum rates for taxes that internalize negative externalities. Alternatively, the EU could directly levy taxes that cannot be effectively collected by individual countries, such as charges on air transport, the Financial Transaction Tax or an EU-wide carbon tax.

Kurt Bayer, WIFO, wrapped up the first day, pointing out the great variety of viewpoints on EMU's institutional shortcomings, while he missed a discussion

about its macroeconomic policy deficiencies. In his view, the EMU policy mix – rather than just being directed toward individual countries – should target the euro area as a whole, whose fiscal stance is still contractionary in the seventh year of stagnation. The frequent misdiagnosis of budget deficits as a simple matter of discipline ignores how they relate to economic growth.

Countering divergence through automatic stabilizers in EMU (keynote)

László Andor, Hertie School of Governance, and former EU Commissioner for Employment, Social Affairs and Inclusion, argued that Europe's vicious circle of falling investment, economic stagnation, and erosion of human and physical capital cannot be broken without further reform of EMU. But as long as ever-greater surpluses in the core and internal devaluation in the periphery continue, Europe will remain stuck in its trap. The Five Presidents' Report rightly emphasizes divergence as the main threat to EMU's very existence, but the proposals do not go far enough to reverse this development. Instead of relying on the IMF and ECB for euro area stabilization policies, he advocated deepening economic policy coordination to focus on policies optimizing growth and employment for the euro area as a whole. The legitimacy of more centralized EMU policymaking will require greater risk sharing and democratic accountability. Also, stronger common action is crucial to restore balanced economic prospects for euro area citizens. The euro area debt crisis has transformed European politics: far-right movements have been gaining in the north, and radical left movements in the south, and the pro-European mainstream has been shrinking while running out of political capital to undertake necessary EMU reforms. A dramatic cut in automatic stabilizers due to tightened economic governance led to the euro area recession of 2012–13, which was actually more brutal in terms of household incomes than the first recession of 2008–09. Unemployment and inequalities soared in particular in peripheral countries. Against this backdrop, then EU Commissioner Andor proposed a 'Social Dimension of EMU' in 2013, which mentioned a European automatic fiscal stabilization function. This proposal reflected his conviction that, without rules-based transfers, monetary union would disintegrate. Academic studies analyzed three main options for EMU-level automatic stabilizers: output gap-based schemes, a partial pooling of unemployment insurance systems and reinsurance for big shocks. Each of these options would have beneficial effects on economic growth and the most vulnerable euro area members, with each Member State deriving benefits over the cycle. Andor closed by saying that it is easier to change the Treaties than the laws of economics.

Automatic stabilizers (paper session 5)

Francesca Carta, Banca d'Italia, presented a paper titled *"A Feasible Unemployment-Based Shock Absorber for the Euro Area."* In order to design a centralized shock absorber that stabilizes the business cycle, while being compatible and marked by limited cross-country redistribution, 72 different schemes were simulated and evaluated. The proposal builds on a notional euro area-wide unemployment insurance mimicking national-level insurance schemes by transfers at the macro level. It deals with problems of asymmetric information and moral hazard, recognizes subsidiarity considerations and restricts coverage to short-term unemployment and major shocks. The empirical results suggest that the best scheme

would cover all unemployed at a replacement rate of 50% with a duration of up to eight months; its funding should be based on (dismissal) experience rating. Such a scheme would offer substantial stabilization without implying large and persistent cross-country redistribution; it could stimulate convergence in take-up rates and unemployment benefits across countries, with a positive impact on citizens.

Mathias Dolls, Centre for European Economic Research (ZEW), presented a paper entitled *"An Unemployment Insurance Scheme for the Euro Area? A Comparison of Different Alternatives using Micro Data."* Counterfactual simulations for the EMU period quantified the tradeoff between automatic economic stabilization and cross-country transfers of a European unemployment scheme. The baseline features were: coverage of all new unemployed up to 12 months with a replacement rate of 50% and contributions from a payroll tax of 1.6%, which implied a relatively low budget of EUR 47 billion over the whole period. Such a scheme would have absorbed a significant fraction of the unemployment shock in the recent crisis in terms of household income, especially to the benefit of the young. Germany would have benefitted immediately after the introduction of the euro – the southern countries after 2008. A contingent benefit scheme that is only activated in the event of big unemployment shocks influences whether Member States are permanent net contributors or net recipients.

Coordinated wage policy (paper session 6)

Paul Ramskogler, OeNB, delivered a presentation on *"The Trinity of Wage Setting in the European Monetary Union – A Policy Proposal."* He showed that in a currency union wage divergence results in external and domestic effects as nominal unit labor costs (ULC) are correlated with both current account balances and real GDP growth. The "golden rule" of internal stability seems to be insufficient for external stability in a heterogeneous EMU. Hence, he proposed a trinity wage benchmark comprising (1) an internal wage target (in line with productivity growth), (2) price stability (using the ECB target) and (3) a symmetrical external balance benchmark related to current account sustainability. Applying this model would have led to a lower divergence in current account imbalances and nominal ULC, with wages rising faster in Germany and more slowly in peripheral countries. While acknowledging the autonomy of social partners, nominal wage rigidities and non-price factors of competitiveness, this trinity rule will help achieve transnational stability within the currency union.

Bernd Brandl, University of Durham, presented the paper *"The Effects of Institutional Instability in Collective Bargaining: A Long-Term Analysis of Changing Collective Bargaining Actors and Structures."* The accelerated institutional reforms in collective bargaining (CB) structures evident since 2008 have often proved erratic and inconsistent. CB structures have differed widely for historical reasons: the corporatist perspective of the 1970s was later challenged by the "hump-shaped theory" implying optimality of either decentralized or centralized systems, followed by preference for coordinated intermediate systems and, finally, by a pluralistic consensus. The new European economic governance, however, merely pushes toward a decentralization and weakening of CB. Institutional reforms do not take transaction costs into account (loss in trust, efficacy). Empirical analysis has confirmed that instability is costly in terms of inflation and unemployment. Facing risks and uncertainty, policymakers should avoid repeatedly changing CB structures.

Capital market union (paper session 7)

Régis Breton, Banque de France, presented a paper on *"Monetary Union with a Single Currency and Imperfect Credit Market Integration."* A monetary union is defined as a currency union plus a credit union. In EMU, retail credit markets largely remained in national domains and, as the crisis unfolded, a reversal of financial integration set in. Insufficient credit integration, however, undermines the benefits of the single currency. Governments cannot force banks to unify their credit policy if they are afraid of holding assets subject to different jurisdictions that might not automatically cooperate for collateral seizure across borders. When credit integration is insufficient, a currency union could be associated with higher cross-border default incentives leading to more credit rationing and welfare losses. Reducing barriers to cross-border credit markets restores the optimality of the currency union.

Joseba Martinez, New York University, presented a theoretical paper titled *"Does a Currency Union Need a Capital Market Union?"* He examined whether banking union provides adequate insurance against asymmetric shocks. Assuming an idealized banking union with perfectly functioning credit markets (no spreads), credit-constrained borrowers and incomplete market clearing through prices, deleveraging shocks could have real economic effects. Whether a capital market union is a significant improvement over banking union depends on the type of shock: while banking union is key in a simple deleveraging shock, a capital market union offers added value in another normal type of shock. During major financial crises (at the zero lower bound of interest rates), a capital market union does not make much of a difference as such events call for more heavy weaponry.

Debt management (paper session 8)

Giancarlo Corsetti, University of Cambridge, presented the paper *"A New Start for the Eurozone: Dealing with Debt."* Despite severe fiscal retrenchment, euro area debt levels have not gone down and the risk premium genie is not yet completely back in the bottle. Worries about debt sustainability entailed growth problems and externalities for other Member States. Therefore, Corsetti proposed to designate a revenue source for debt buy-back through a temporary special redemption fund that is politically accountable at the euro area level. Dealing with legacy debt, this fund would bring all euro area countries out of the vulnerability zone in exchange for coordinated fiscal effort. It would issue partial Eurobonds, i.e. safe assets, to avoid sovereign market segmentation. Alternatively, the ECB could require from banks a diversification rule on euro area debt holdings in proportion to their share in euro area GDP. Financial markets would then issue risk-free synthetic assets in line with these ratios.

John Muellbauer, Nuffield College, Oxford, presented his paper entitled *"Conditional Eurobonds and Eurozone Reform."* He held that all it takes to switch the policy focus from austerity to productivity is rules-based risk spreads as derived from countries' fundamentals. Given the lack of democratic institutions for a fiscal union, technical solutions that create incentives through quasi-market signals are required. He proposed conditional Eurobonds for all new borrowing that come with a collective underwriting guarantee and administratively set risk premiums based on economic fundamentals (i.e. unit labor costs, public and private debt, growth and inflation as well as house prices). Modeling how these fundamentals

affect future growth showed a positive impact of competitiveness and low relative inflation, and a negative one of fiscal austerity and overshooting housing prices. In contrast, debt levels proved relatively unimportant for growth until they became very high. Muellbauer's proposal would reward labor and product market reform.

Public investment (paper session 9)

Achim Truger, Berlin School of Economics and Law, presented his paper titled *"Implementing the Golden Rule for Public Investment in Europe,"* stating that the golden rule for debt-financed public investment is compatible with intergenerational fairness, as the following generation will also benefit. Although a pragmatic definition of public investment could comprise education, childcare, social work and integration, he took traditional investment in national accounts (mainly tangible assets) as a starting point. There is a clear economic case for public investment, as it boosts short-term growth through a high multiplier and its implied marginal (long-term) returns are substantial. In the EU fiscal framework, net public investment could be deducted from relevant deficit numbers of the Stability and Growth Pact. Since such a change would require a unanimous Council decision, a "silver rule" (labeled by WIFO Director Karl Aiginger) could in the meantime help governments undertake fiscal expansion by building on flexibility within the existing rules.

Zsolt Darvas, Bruegel, presented a paper titled *"In Sickness and in Health: Protecting and Supporting Public Investment in Europe."* He proposed an asymmetric golden rule which would apply in a deep recession but not in good times. In his view, a golden rule is justified as public investment has declined dramatically during the crisis in the EU, while expanding in the U.S.A. and in other economies. Multipliers tend to be larger in recessions (exceeding 2 in deep recessions), which means that investment cuts are self-defeating. Arguments against the golden rule should also be taken into account, though, as it tends to maintain deficits for too long, leads to distortions toward physical infrastructure, renders it difficult to select the items it refers to, might incentivize cheating and involves insignificant amounts. Applying the rule only during a recession lowers the risk of reclassification. A more ambitious version would be a European instrument for cyclical stabilization.

Fiscal capacity (paper session 10)

Paolo Pasimeni, European Commission, presented a paper entitled "The Economic Rationale of an EMU Fiscal Capacity." He proposed a fiscal capacity linked to the Member States' intra-EMU external positions in order to cope with EMU's tendency to endogenously create imbalances and with its inherent deflationary bias. The negative correlation of the twin divergences in current account positions and unemployment rates among euro area countries suggests a cruel tradeoff in EMU: either growth with imbalances, or balance without growth. Although exports from surplus to deficit countries benefitted from a "transfer union by financial markets" in the pre-crisis period, the adjustment after the "sudden stop" was asymmetrically undertaken by deficit countries alone. The resulting procyclicality and the lack of countervailing expansion in surplus countries evidenced EMU's inherent deflationary bias. Resolving this dilemma, a fiscal capacity

financed by surplus countries would mitigate external imbalances and help correct them as well as improve demand management of the euro area aggregate.

Agnès Bénassy-Quéré, Paris School of Economics, gave a presentation on *"Making Sense of the Fiscal Union: a Budget for the Eurozone?"* Of the key functions of fiscal federalism (allocation, stabilization and redistribution), the Five Presidents' Report focused only on stabilization. So far, EMU has featured procyclical discretionary fiscal policy, heterogeneous automatic stabilizers, asymmetrical fiscal discipline and no instrument for the aggregate fiscal stance. There are three options: First, national policies could be improved by a symmetric notion of discipline (requiring deficits in surplus countries) or by allowing for some discretion (steered by a European Fiscal Board). Second, the ESM could automatically extend precautionary credit lines. Third, a federal instrument for macroeconomic stabilization could make countercyclical expenditures and back stabilization mechanisms (banking union, labor mobility), or it could even be a fully-fledged budget for allocation (e.g. refugees) and redistribution (humanitarian support for countries under stress).

In her wrap-up, *Sonja Puntscher-Riekmann,* Salzburg Centre of European Union Studies, referred to her upcoming research project on Member States' preferences for the future of EMU, arguing that political discourse matters as much as, if not more than, economic reasoning when it comes to the feasibility of EMU reform. She recalled that with any reforms proposed in recent years, progress has been limited and resistance severe. She agreed with President Juncker's statement that there is too little union in this Union. Too much focus has been put on comparing national positions instead of promoting the narrative of the euro area as a whole. Placing too much emphasis on electoral concerns will lead nowhere as there will be an election somewhere in Europe at any given time. It would be much more fruitful for political leaders to explain to their constituencies what needs to be done. Integration by stealth is probably over. Hiding in epistemic communities will not make Eurosceptic parties go away. Instead, it is time to engage in a thorough public debate.

Macrofinancial linkages and current account imbalances: a synopsis

A joint conference of the CEPR, IMF, Deutsche Bundesbank, JVI and OeNB, July 2 and 3, 2015, Vienna

External imbalances have been a central theme in the international policy debate and are often deemed culprits in the recent financial crisis in the euro area. Recently, efforts have been made by multilateral institutions to revamp their methodologies of assessing external imbalances. The models that so far have been used in cross-country policy analyses do not prominently feature the role of financial sector linkages – within and across national borders – in shaping national savings and investment dynamics. A conference organized jointly by the CEPR, the IMF, the Deutsche Bundesbank, the JVI and the OeNB on July 2 and 3, 2015, in Vienna brought together researchers from academia, central banks and international institutions to discuss more traditional views on external rebalancing in relation to more recent research on the links between cross-border banking, financial flows, private sector leverage and the current account.

Luis A. V. Catão,
Martin Summer[1]

Current account imbalances have been a concern in macroeconomics and economic policymaking for a long time. These imbalances can be a source of macroeconomic instability: The sudden and abrupt reversal of capital flows causes recessions and harsh and costly adjustments.

Global financial developments over the past ten years have given the current account further prominence as a key indicator of macro imbalances and an early warning signal of impending crisis. Recent research (see Catão and Milesi-Ferretti, 2014) has corroborated, for instance, that current account deficits have held significantly more predictive power vis-à-vis a variety of other early warning indicators of external financial crises, and this has been dramatically illustrated by developments in the euro area since 2007. The prominence of current account imbalances is reinforced by the fact that they have taken the form of persistently large surpluses in a handful of countries and deficits in many others, leading to a massive international redistribution of wealth. To put this into perspective, just consider the fact that creditor countries' net financial claims on debtors amounted to some 40% of creditors' GDP in 1990 and that this ratio had nearly doubled by the early 2010s. Examining the drivers of current account imbalances clearly remains a key issue in international macroeconomics.

Of course, in theory, a pattern of persistent current account imbalances characterized by a small group of surplus countries and a large group of deficit countries could still be an optimal allocation for the world economy as a whole. Large and persistent current account imbalances can arise, for instance, as a consequence of anticipating faster productivity growth leading to higher investment and lower savings in the deficit countries. This could then be reflected – for instance – by large capital flows from euro area core countries to those in the periphery. Yet, there is also a widespread presumption that these imbalances can reflect a globally

inefficient allocation of resources brought about by policy and institutional frictions rather than desirable market allocation.

Traditional sources of distortions have been fiscal misbehavior, excessive reserve accumulation, labor market legislation and trade restrictions. While these traditional sources of distortions are and will remain of course a key concern in the analysis of imbalances, the experience of the recent financial crisis revealed that focusing on them alone misses an important part of the picture. Factors that have also become important – and arguably more critical than ever – are distortions in the financial sector and the issue of the private sector dimension of financial flows. For instance, large parts of financial flows between the north and the south of Europe that contributed to the emergence of imbalances in the euro area were flows of private sector debt channeled through the banking system. Thus, bank-driven private sector leverage was a key contributor to macroeconomic and financial instability.

Financial frictions and current account imbalances can interact, leading to excessive risk taking and increasing the risk of crisis. In this case, macro policies that induce some rebalancing, including coordinated fiscal action and macroprudential regulation, can be welfare enhancing. The conference entitled "Macro-Financial Linkages and Current Account Imbalances," organized jointly by the Center of Economic Policy Research (CEPR), the International Monetary Fund (IMF), the Joint Vienna Institute (JVI) and the Oesterreichische Nationalbank (OeNB) and hosted by the OeNB in Vienna on July 2 and 3, 2015, provided a forum for presenting and discussing recent advances in research on some of the critical interactions between finance and external macro imbalances. The twelve papers presented at the workshop spanned theoretical and empirical aspects of such interactions. Tobias Adrian from the Federal Reserve Bank of New York and CEPR and Claudia Buch, Vice President of the Deutsche Bundesbank, gave keynote lectures.

1 High foreign exchange reserve accumulation by emerging markets and higher corporate leverage

Vincenzo Quadrini, University of Southern California and CEPR, presented a model allowing a systematic analysis of a question that has been widely discussed in the policy community over the past decade: Why do emerging market economies accumulate safe assets issued by industrial countries? Can this development be understood as emerging countries' exchange rate policy that keeps their currencies undervalued? Or is it a consequence of heterogeneity in financial systems and the inability of emerging markets' financial systems to produce viable financial instruments for saving and insurance purposes? Or is there an institutional dimension, with the rudimentary safety nets provided by the public sector in emerging economies resulting in higher idiosyncratic uncertainty for households and firms? According to Quadrini's theory, the key mechanism how growth in emerging economies affects macroeconomic stability works through financial intermediation: The increasing share of emerging markets in the world economy leads to an increased demand for safe financial assets issued by industrialized countries because agents in these countries face higher idiosyncratic risk, requiring an asset that delivers stable returns. This in turn drives down interest rates on the "safe" asset, giving financial intermediaries (global banks in his model) an incen-

tive to increase leverage, thus heightening the probability of a macroeconomic crisis. If a liquidity crisis occurs, financial intermediation will shrink, asset prices will fall and economic activity will slow down.

Discussant Paul Pichler, OeNB, made two comments: His first observation was that in Quadrini's theory there is no link between growth and financial development in emerging markets, while the data suggest the existence of a clear link. This link could in a quantitatively important way influence the global demand for bank liabilities issued in industrialized countries. His second comment related to the details of how the entrepreneurial sector is modeled in Quadrini's theory. Pichler pointed out that he would have liked to see a technically more precise discussion of the assumptions because they have an important influence on the simple aggregation properties of the model.

Adam Gulan, Bank of Finland, presented a paper jointly written with Roberto Chang, Rutgers University, and Andrés Fernández, Inter-American Development Bank. In this paper the authors look at the fact that low interest rate environments not only increase leverage incentives for intermediaries – as in Quadrini's theory – but also for corporations. What determines the share between bank credit and bond financing in emerging markets and what are the dynamics of these shares over the business cycle? This question is important because the corporate sector in emerging economies has considerably increased its reliance on foreign finance. Is this a signal of increased risks of financial instability or rather a signal of favorable prospects combined with a natural reaction to a low interest rate environment? The paper looks at this issue from the perspective of a theoretical model in which the share of bank and market finance is determined endogenously. In particular, the authors are interested in the question of how these shares would endogenously adjust following an exogenous drop in world interest rates. A key mechanism underlying the theory is the evolution of net worth: As net worth builds up, firms are able to access cheaper direct finance. But also access to more costly indirect finance increases, because some firms that were previously absent from the market due to their low net worth now have enough equity to participate in credit markets. In a calibration exercise the authors make an attempt to quantify these effects.

Discussant Andrea Ferrero, Oxford University, said he liked the model and the way it explains the coexistence of bank and market finance in equilibrium, but that he missed a discussion of valuation effects in the model and the quantitative exercise. Ferrero also showed reservations about the quantitative relevance of both the shocks and the key mechanism driving the results in the model.

2 The sensitivity of national asset prices to monetary policy in core economies and the global financial cycle

The sensitivity of national asset prices to monetary policy in what is often termed "core" countries of the world economy is already an old topic of international macroeconomics; what is new in the more recent debate is the more heated controversy about exchange rates' ability to shield national economies from global financial cycles. Has the famous Mundellian trilemma, according to which policymakers face a tradeoff between monetary autonomy, exchange rate stability and financial openness morphed into a mechanism working mainly through capital flows, credit growth and bank leverage, with exchange rate regimes being irrelevant as pointed out by Rey (2013)?

Hiro Ito, Portland State University, and coauthors Joshua Aizenman, University of Southern California, and Menzie Chinn, University of Wisconsin, address some of the issues in this debate in an empirical paper: Why are spillover effects of financial conditions in major advanced economies and financial market conditions in developing and emerging economies so large? How did cross-market linkages change over time? What factors explain the sensitivity of emerging economies' financial systems to economic conditions in the U.S.A., Japan and the euro area? Looking into these questions is particularly interesting at the current moment, as the U.S.A. is expected to raise interest rates. The authors find that for the past two decades, the link of emerging economies with the advanced economies has been dominant for most financial variables, with a heightened sensitivity observable around the crises in the early 1990s, 2000s and in 2008. While the influence of China has clearly increased the data, for now there is no evidence that the country exerts a substantial influence in financial markets compared to other center economies. The authors find that exchange rate regimes as well as financial openness do not show a direct influence on the sensitivity of center economies. However these factors do matter for the level of sensitivity when they are interacted with other variables such as current account imbalances, gross national debt, trade demand and financial development. This evidence is interpreted as showing that it might be premature to conclude that the old trilemma of open economies' macroeconomic policy has turned into a dilemma, with the global financial cycle as the main spillover mechanism.

Discussant Sandra Eickmeier, Deutsche Bundesbank, pointed out to the authors alternative econometric techniques, such as Global Vars or factor models that would lead to an econometrically improved modelling of the spillover mechanisms at the heart of the paper.

Eric Wong, Hong Kong Monetary Authority, presented a joint paper with Dong He, IMF, Andrew Tsang and Kelvin Ho, both also from the Hong Kong Monetary Authority, entitled "Asynchronous Monetary Policies and International Dollar Credit." Using two unique confidential datasets, the authors look empirically into the spillover effects of unconventional monetary policies through the bank lending channel. Specifically, the authors are interested in their effect on the amount of U.S. dollar credit. This focus has been chosen because of the fact that 40% of international bank claims are in U.S. dollars and there is a strong link between U.S. dollar credit and international economic activity. The authors find that a contractionary effect stemming from a monetary policy normalization in the U.S.A. would have a contractionary effect on global liquidity but this contractionary effect would partially be offset by the expansionary effect of unconventional monetary policies in the euro area and in Japan. If the normalization led to a disruption in the foreign exchange swap market, the provision of global liquidity would be seriously impaired. In line with the general theme of the conference, the authors show the importance of risk-taking attitudes, credit risk exposure and the funding and business models of global banks and their overseas offices for the supply of international dollar credit.

The discussant, Sylvia Kaufmann, Study Center Gerzensee, pointed out the difficulties in comparing the two datasets the authors use in their analysis and also those in interpreting the quantitative results, such as the likelihood of the stress scenario used by the authors.

3 Valuation effects in external adjustment, persistence of carry trade

Since the work of Lane and Milesi-Ferretti (2007) and Gourinchas and Rey (2005) the importance of valuation effects to sustain external positions has been increasingly recognized. Differences in currency exposure of countries' balance sheets combined with large swings in exchange rates of late can make these valuation effects very large.

In his paper "Cross country exposure to the Swiss franc," coauthored with Philip Lane, Trinity College Dublin, Augustin Benetrix, Trinity College Dublin, looks at the empirical significance of such valuation effects in a classic "safe haven" currency, the Swiss franc. The authors attempt to empirically assess the foreign currency position of Switzerland in the years 2002–2012 and the valuation effect on these exposures that result from exchange rate fluctuations. The paper also examines the Swiss franc holdings in the rest of the world. The data show that Switzerland has become increasingly long in foreign currencies. The adverse valuation effect following the appreciation of the Swiss franc has been large given the scale of the Swiss international balance sheet. The positions in the rest of the world show that advanced economies hold long Swiss franc positions as far as the whole international balance sheet is concerned. However, with respect to debt, these countries hold short positions. This pattern can also be seen, on average, across emerging and developing countries. As far as the determinants of cross-country Swiss franc exposures are concerned, the authors find that bilateral trade, GDP volatility and capital controls are important determinants of the exposure in advanced countries. The exposure of the whole international balance sheet is determined by exchange rate risk, country size and the covariance between exchange rate appreciation and GDP growth. This does not, however, hold for the debt component. Finally, the authors show that the exchange rate regime matters for the overall exposure while domestic inflation and EMU membership is relevant for the debt-only exposure in emerging markets and developing countries.

The discussant, Raphael Auer from the Swiss National Bank (SNB), pointed out that quantifying cross-country exposures is the most important issue when analyzing capital flows, especially for safe haven currencies like the Swiss franc. He expressed concerns that the valuation effects are perhaps treated too mechanically in the paper and asked for a more extensive analysis of the cross-sectional results. He pointed out some weaknesses of the BIS banking statistics and encouraged the stronger use of national data sources. He encouraged the authors to look into financial stability issues in a next step.

Quite aside from their role as an investment strategy, carry trades also play a non-negligible role in the financing of current account positions in some countries and deficits in high interest rates-high spending countries. The reasons for this persistence were discussed in the paper "Currency Premia and Global Imbalances" by Pasquale Della Corte, Imperial College Business School and CEPR, coauthored by Steven J. Riddiough, Warwick Business School, and Lucio Sarno, Cass Business School. The paper presents a detailed analysis of the relationship between exchange rates, external imbalances and risk-bearing capacity. The paper finds that a risk factor of global imbalances capturing both the spread in countries' external imbalances and their propensity to issue liabilities in foreign currency explains the cross-sectional variation in currency excess returns. This finding corroborates recent exchange rate theories based on capital flows in imperfect financial markets.

The analysis shows that the global imbalances factor is priced in the cross sections of other major asset markets.

The discussant, Alejandro Cuñjat, University of Vienna, raised some issues about the analyzed portfolio composition, the partial equilibrium nature of the analysis of imbalances without regard to how the funding is used, the nature of shocks as well as the role of central banks in the foreign exchange market.

4 Global pricing of risk, systemic risk and economic policies

Tobias Adrian, Federal Reserve Bank of New York, was the keynote speaker of the first workshop day. He presented a recent joint paper with Daniel Stackman and Eric Vogt, titled "Global Pricing of Risk and Stabilization Policies." The paper studies the impact of global financial institutions on the global pricing of risk. The key trade-off found in the analysis of this impact is that a higher global price of risk exposure goes hand in hand with higher growth and higher volatility. The policy part of the talk was about the question how countries can mitigate this shift of the risk-return trade-off through monetary, fiscal and macroprudential policies.

According to the paper, volatility in risk pricing arises as a consequence of how individual institutions manage their risks by imposing value-at-risk constraints on their exposures. On the empirical side, this volatility seems to be best captured by the volatility index VIX. The data show that at the country level, there is a macro risk-return trade-off: Higher exposure to the global pricing of risk corresponds to higher growth and higher volatility. Monetary, fiscal and macroprudential policies can mitigate the impact of the global pricing of risk on the domestic risk-return trade-off, but their estimates suggest a steep trade-off frontier.

5 Exchange rates, international borrowing costs and current account imbalances

Sara Eugeni, Durham Business School, presented her paper "Nominal Exchange Rates and Net Foreign Asset Dynamics: The Stabilization Role of Valuation Effects," taking up again the valuation issues that were already addressed in the paper by Benetrix and Lane on the first workshop day. In her paper, Eugeni presents and analyzes a theoretical framework which allows a deeper understanding of valuation effects of exchange rate fluctuations and their economic impact on the net foreign asset position of a country. In the model, countries with a decreasing share in world GDP run current account deficits. The valuation effect that results from exchange rate depreciation has a stabilizing impact on the net external position of the country. The analysis shows that this valuation effect is quantitatively relevant as it accounts for more than half of the cumulated U.S. current account deficit.

The discussant, Michael Reiter, IHS Vienna, started his analysis by looking into the deeper reasons behind the attractive simplicity and tractability of the model. Reiter pointed out that 1) the key result of the model is too dependent on the assumptions of non-tradability between the home and the foreign good in the final period (by the old generation) and that 2) model calibration results can explain only a part of the observed valuation effects.

Daniele Siena, Banque de France, presented a paper with the title "The European Monetary Union and Imbalances: Is it an Anticipation Story?" In this study, he investigates the role of anticipated shocks as a source of current account

imbalances within EMU before the Great Recession. Using a DSGE model with a variety of possible unanticipated and anticipated shocks, he attempts to explain the fact that since 1996, countries in the euro area periphery running the largest current account deficits have been the ones with real exchange rates appreciating and output growing faster than trend. He finds that anticipated reductions in international borrowing costs are the most important source of current account imbalances. Siena also finds that anticipated shocks account for almost two-thirds of the fluctuations in the current account and for one-half of those of the real exchange rate.

Discussant Stefan Niemann went through a couple of issues in the quantitative analysis of the model, in particular the treatment of elasticities in product and labor markets. He criticized that in the estimation, yield spreads are not exploited as observables. He raised issues in the out-of-sample performance of the model and asked for a more elaborate welfare analysis.

6 Internal adjustments to sudden stops: a cross-country comparison

Claudia Buch, Vice President of the Deutsche Bundesbank, was the keynote speaker on the second conference day. She presented an empirical analysis of private capital flow reversal episodes after the 2008 crisis for the country groups Bulgaria, Estonia, Latvia and Lithuania on the one hand and Greece, Ireland, Italy, Portugal and Spain on the other hand. Specifically, Buch and her coauthors, Manuel Buchholz (IWH Halle), Alexander Lipponer (Deutsche Bundesbank) and Esteban Prieto (Deutsche Bundesbank), look into two particular questions: Did enhanced liquidity provision of the Eurosystem affect adjustment patterns after the sudden stop? If yes, what are the channels through which liquidity provision affects adjustment dynamics?

The authors find heterogeneities in the effects of enhanced liquidity provision on sectoral adjustment dynamics. In financially dependent sectors, enhanced liquidity provision by the Eurosystem reduces the adjustment in real unit labor costs, reduces the adjustment in real wages and reduces producer price pressure rather than increasing it.

Buch stressed the fact that the empirical results show that key implications of (monetary) policy cannot be uncovered using aggregate data: Without taking cross-sectoral, cross-country heterogeneity into account, the channels through which monetary policy affects prices cannot be empirically established.

She took this observation to spend some time of her keynote lecture to point out how central banks can increase their efforts to develop tools for using their existing micro datasets for improved policy evaluation. She highlighted the significant efforts that the Bundesbank has recently been undertaking to achieve this goal and explained its recent initiatives to establish a modern research data and service center as well as an integrated micro data-based information and analysis system.

7 The tight nexus between sovereign debt and systemic bank risk

The tight nexus between sovereign debt and systemic bank risk has been a major source of policy concerns in the euro area lately. With much of external imbalances taking the form of debt flows and having been fueled by large swings in bank credit, two papers in the workshop looked deeper into the issues.

Daniel te Kaat, University of Osnabrück, presented a paper with the title "Global imbalances and bank risk taking." In this study, jointly authored with Valeriya Dinger, University of Osnabrück, the authors aim to identify the channel through which international capital flows affect financial stability. Specifically, they empirically look into the impact of current account imbalances on banks' risk taking. Their main finding is that bank risk taking is positively associated with current account deficits. It is shown that banks in countries with large external deficits substitute new investments in asset markets with risky loans and as a result the average quality of bank loans deteriorates.

Discussant Martin Brown, University of St. Gallen, praised the paper's contribution by linking the literature on international capital flows with the literature on the risk-taking channel of monetary policy. He expressed some skepticism concerning the policy messages, pointing out that current account deficits are not in general bad for financial stability and the fact that different types of capital inflows have different consequences for financial stability.

Giulia Rivolta, University of Brescia, presented a paper coauthored with Luca Dedola from the ECB and the CEPR and Livio Stracca from the ECB with the title "If the Fed sneezes, who gets a cold?" As the title suggests, the focus of the empirical investigation is the global impact of U.S. monetary policy shocks. Using a structural VAR approach drawing on the identification scheme of Gertler and Karadi (2011), the authors present three main findings: U.S. monetary policy shocks have different effects across advanced and emerging economies. In advanced economies, mainly macro variables are affected, whereas in emerging markets, the impact is both on macro and on financial variables. Finally, exchange rate regimes and the degree of financial openness hardly make a difference in the effect on emerging economies. U.S. monetary policy shocks affect advanced and emerging economies very differently.

Discussant Christian Upper, BIS, suggested that the analysis could perhaps be done using fewer variables and a smaller model either by dropping certain variables or by summarizing some variables through common factors. He critically discussed the identification restrictions and made suggestions on how to better organize the presentation of the huge model output. Upper suggested a more detailed analysis of countries that are particular affected by a normalization of U.S. monetary policy and suggested applying the model more directly to the question of the lifting-off, for instance, whether the lifting-off is the shock or rather the postponing of these measures and whether the effect will be symmetric or not.

8 The role of IMF financing in external adjustment

A distinctive characteristic of international macro policies in the past few years has been the change in the form and direction of IMF assistance. A fresh look at the ability of IMF programs to crowd-in foreign investors in a truly catalytic fashion, and thus to smooth current account reversals and jump-start growth, was provided by Aitor Erce, European Stability Mechanism, in a paper coauthored with Daniel Riera-Crichton from Bates College, titled "Catalytic IMF? A Gross Flows Approach."

In their study, the authors provide evidence that is able to answer the question of whether IMF programs work through their effect on improving confidence in a country subject to an IMF program. In particular, the authors are interested

whether they can find an often claimed catalytic effect of IMF programs on gross capital flows. The authors find significant differences in the reaction of resident and foreign investors. While IMF programs do not catalyze flows of foreign capital, there is evidence that they affect the behavior of resident investors, who are less likely to place their savings abroad.

The discussant, Norbert Funke, JVI, pointed out the different purposes of IMF-supported programs, such as those to address short-term balance of payments problems or those to deal with medium- to longer-term external adjustment issues, which may lead to a different response of private capital flows. He encouraged the authors to elaborate more on the story behind the catalytic effects of IMF finance. Funke also suggested several possible extensions of the analysis, such as including a proxy for flight to safety, using an alternative measure for capital controls at a more disaggregated level, extending the time horizon, and analyzing reserve developments.

Malte Rieth, DIW Berlin, presented a joint paper with Marcel Fratzscher, DIW Berlin, titled "Monetary Policy, Bank Bailouts and the Sovereign-Bank Risk Nexus in the Euro Area." In this paper, the authors look empirically into the effectiveness of the recent crisis policy mix of capital injections and monetary policy-driven liquidity injections and sovereign debt market interventions. Specifically, the authors are interested in finding evidence that these policies worked in disentangling the feedback loops between a deteriorating banking sector and a decline in sovereign ratings. The authors provide quantitative evidence on the two-way impact of banks on sovereigns and vice versa: They find that a 100 basis point increase in the sovereign CDS spread raises the CDS spreads of banks by 38 basis points. On the other hand, a deterioration of 100 basis points in bank risk worsens sovereign risk by 28 basis points. The authors provide evidence that the transmission channel works via the risk impact on nonfinancial institutions. There is a high degree of heterogeneity across countries and the spillover effects between sovereign and bank risk are strong. The authors do not find clear evidence that the feedback loop has been effectively disentangled. Overall, the study shows that rescue policies had a significant positive impact on both bank risk and on risks to the real economy. Whether the policy mix was ultimately successful in defusing the feedback loop between banks and sovereigns is less clear.

The discussant, Martin Gächter, OeNB, raised some questions and pointed out possible extensions to the paper. In particular, he encouraged the authors to look deeper into expectations and announcement effects and into the potential endogeneity of bank bailouts and monetary policy measures to CDS spreads. He pointed out that the paper might focus more on policy implications, such as the role of the banking union or other potentially important determinants of the bank-sovereign nexus. Among the other determinants, Gächter specifically pointed out the issue of banks' home bias in their holding of sovereign bonds and the role of bank capitalization in shock absorption capacity.

9 Summary

Current account imbalances in many advanced countries and emerging markets have abated since the 2008–09 financial crisis. Abnormally low global interest rates and pending weaknesses in the banking systems of some advanced countries seem to account for some of this compression. If so, a question of policy interest is

whether an eventual return to a new "full" normal will be accompanied by healthier current account imbalances and – in particular – healthier financing of such imbalances. Without engaging in futurology, we hope that the proceedings of this conference contribute to future assessments of countries' external positions.

References

Adrian, T., R. Crump and E. Vogt. 2015. Nonlinearity and Flight-to-Safety in the Risk-Return Tradeoff for Stocks and Bonds. Federal Reserve Bank of New York Staff Reports Number 723.

Aizenman, J., C. Menzie and I. Hiro. 2015. Monetary Policy Spillovers and the Trilemma in the New Normal: Periphery Country Sensitivity to Core Country Conditions. NBER Working Paper 21128.

Bénétrix, A. and P. Lane. 2014. Cross-country Exposures to the Swiss Franc. Working Paper. Swiss National Bank. November.

Buch, C. M., M. Buchholz, A. Lipponer and E. Prieto. 2015. Internal Adjustment to Sudden Stops: BELL versus GIIPS Countries. Working Paper.

Catão, L. A. V. and G. M. Milesi-Ferretti. 2014. External Liabilities and Crises. Journal of International Economics 94(1). 18–32.

Chang, R., A. Fernandez and A. Gulan. 2015. Bond Finance, Bank Credit, and Aggregate Fluctuations in an Open Economy. Working Paper.

Della Corte, P., S. J. Riddiough and L. Sarno. 2014. Currency Premia and Global Imbalances. http://ssrn.com/abstract=2280952 or http://dx.doi.org/10.2139/ssrn.2280952.

Dedola, L., G. Rivolta and L. Stracca. 2015. If the Fed sneezes, who gets a cold? Working Paper.

Dinger, V. and D. te Kaat. 2015. Global Imbalances and Bank Risk Taking. Working Paper.

Eugeni, S. 2015. Nominal exchange rates and net foreign assets' dynamics: the stabilization role of valuation effects. MPRA Working Paper 63549.

Erce, A. and D. Riena. 2015. Catalytic IMF? A Gross Flow Approach. Working Paper.

Fratzscher, M. and M. Rieth. 2015. Monetary Policy, Bank Bailouts and the Sovereign-Bank Risk Nexus in the Euro Area. DIW Discussion Paper 1448.

Gertler, M. and P. Karadi. 2011. A model of unconventional monetary policy. In: Journal of Monetary Economics. Vol. 58(1). Elsevier. 17–34.

Gourinchas, P. O. and H. Rey. 2005. International Financial Adjustment. In: Journal of Political Economy 115(4). 665–703.

He, D., E. Wong, A. Tsang, and K. Ho. 2015. Asynchronous Monetary Policies and International Dollar Credit. Working Paper.

Lane, P. and G. M. Milesi-Ferretti. 2007. The External Wealth of Nations Mark II: Revised and Extended Estimates of Foreign Assets and Liabilities, 1970–2004. In: Journal of International Economics 73(2). 223–250.

Quadrini, V. 2015. The Growth of Emerging Economies and Global Macroeconomic Stability. Working Paper.

Rey, R. 2013. Dilemma not Trilemma: The Global Financial Cycle and Monetary Policy Independence. Paper prepared for the 2013 Jackson Hole Meeting.

Siena, S. 2014. The European Monetary Union and Imbalances: Is it an Anticipation Story? Banque de France Working Paper No. 501.

Taylor, A. 2013. External Imbalances and Financial Crisis. IMF Working Paper 13/260.

Olga Radzyner Award Winners 2015

The Olga Radzyner Award has been bestowed annually on young economists from Central, Eastern and Southeastern Europe (CESEE) for excellent scientific work on European economic integration since the year 2000. The Oesterreichische Nationalbank (OeNB) established this award to commemorate the former head of the OeNB's Foreign Research Division, Olga Radzyner, who pioneered the OeNB's CESEE-related research activities.

Compiled by
Markus Eller

In 2015, the OeNB received 16 submissions for the Olga Radzyner Award from candidates from 10 countries. The submitted papers covered a wide range of topics related, inter alia, to the economic effects of FDI, trade integration, export diversification, youth unemployment, financial stability risks, credit growth, non-performing loans, or the way fiscal policy measures are transmitted to the real economy. In terms of regional coverage, the submitted papers provided empirical evidence for Europe in general and for CESEE in particular.

From these submissions, the jury of OeNB reviewers chose four papers for distinction with the Olga Radzyner Award because they were considered outstanding in terms of originality, motivation and analysis as well as the use of state-of-the-art methods. The awards were conferred by OeNB Governor Ewald Nowotny on October 16, 2015, at the jointly held Conference on European Economic Integration of the OeNB and the Conference on the Future of the European Economy of Narodowy Bank Polski (NBP). The winners are (in alphabetical order):

Márta Bisztray (Hungary) – for her paper on "The effect of FDI on local suppliers: Evidence from Audi in Hungary." Ms. Bisztray is a PhD student at the Central European University in Budapest. In her paper, she carefully investigates the long-term impact of Audi's large-scale direct investment in Hungary in 1993 on firms operating in Hungarian supplier industries. While their sales and employment increased significantly (thereby confirming a positive demand effect), there was no considerable productivity-enhancing or export-promoting effect. The positive effects on sales and employment were mainly concentrated on foreign-owned, more productive and small or medium-sized firms. The methodological framework employed is well suited for studying the economic effects of other large-scale FDI in the CESEE region.

Zoryana Olekseyuk (Ukraine) – for her paper "Modeling of FDI in business services: additional effects in case of Ukraine's European integration." Ms. Olekseyuk is a PhD student at the University of Duisburg-Essen. In her paper, she studies the economic effects of the Deep and Comprehensive Free Trade Area (DCFTA) agreed between the EU and Ukraine. Ms. Olekseyuk provides value added to existing economic research by using a multi-regional computable general equilibrium model to account not only for the impact of a reduction of tariffs and nontariff trade barriers, but also for the impact of liberalizing FDI in business services. She finds that a combination of far-reaching trade and FDI liberalization yields the largest welfare gains; according to her simulation these gains would be substantial for Ukraine, while the EU would experience small gains. The simulation results also show that in order to mitigate deindustrialization impacts in Ukraine, it is essential to reduce the barriers for service suppliers.

Nadja Stanová (Slovakia) – for her paper on "Effects of fiscal shocks in new EU members estimated from a SVARX model with debt feedback." Ms. Stanová is a PhD student at the University of Antwerp. The main contribution of her paper lies in showing that the way in which macroeconomic time series models account for public indebtedness is very important for understanding the responses of macroeconomic indicators to fiscal policy shocks in CESEE economies. Explicit debt feedback has so far not been considered in traditional macro-fiscal vector autoregressive models for the CESEE countries. The strong increase in public debt levels during the 2008/2009 crisis makes this a very urgent issue, however. The paper's results indicate that debt feedback dampens the effect of government spending shocks on output. Moreover, output responses to spending shocks are smaller the larger the initial government debt-to-GDP ratio is, suggesting that expansionary fiscal policy measures are less effective in stabilizing the economy the more indebted a sovereign is.

Iva Tomić (Croatia) – for her paper "What drives youth unemployment in Europe?" Ms. Tomić is a research associate at the Zagreb-based Institute of Economics. Her analysis demonstrates that, for a better understanding of the determinants of youth unemployment in Europe, it is not only relevant to focus on traditional macroeconomic variables but that it is also important to consider structural and institutional factors. According to Ms. Tomić's empirical results, youth unemployment in the EU appears to be more pronounced if the share of construction in gross value added is low, the country's trade dependence is low or, probably most importantly, corruption is wide-spread. In addition, poor GDP growth, high income taxes, a low share of temporary employment in total employment, reduced mobility due to homeownership, high remittances from abroad, a low work intensity of other household members or fewer possibilities for young people to live outside their parental homes appear to be relevant factors for EU countries with comparatively high youth unemployment rates.

Statistical annex

Statistical annex

This section provides tables detailing selected economic indicators for Albania, Bosnia and Herzegovina, FYR Macedonia,[1] Kosovo, Montenegro, Serbia and Ukraine, i.e. CESEE countries not covered in the "Recent economic developments and outlook" section.

Conventions used

x = No data can be indicated for technical reasons
. . = Data not available at the reporting date
Discrepancies may arise from rounding.

Table 1

Gross domestic product

	2008	2009	2010	2011	2012	2013	2014
	Annual real change in %						
Albania	7.5	3.2	3.6	2.5	1.4	1.1	2.2
Bosnia and Herzegovina	5.5	−2.9	0.8	0.9	−0.9	2.4	1.1
Kosovo	7.2	3.6	3.3	4.4	2.8	3.4	0.9
FYR Macedonia	5.5	−0.4	3.4	2.3	−0.5	2.7	3.8
Montenegro	6.9	−5.7	2.5	3.2	−2.5	3.3	1.5
Serbia	5.4	−3.1	0.6	1.4	−1.0	2.6	−1.8
Ukraine	2.2	−15.1	4.1	5.4	0.2	0.0	−6.8

Source: wiiw.

Table 2

Industrial production

	2008	2009	2010	2011	2012	2013	2014
	Annual real change in %						
Albania	20.2	4.2	36.2	19.0	15.7	28.3	1.6
Bosnia and Herzegovina	10.3	−6.5	4.3	2.4	−3.9	5.2	0.2
Kosovo[1]	x	−1.5	1.8	−5.7	−3.3	−1.5	7.8
FYR Macedonia	5.1	−8.7	−4.9	6.9	−2.7	3.2	4.8
Montenegro	−2.0	−32.2	17.5	−10.3	−7.0	10.6	−11.4
Serbia	1.4	−12.6	1.2	2.5	−2.2	5.3	−6.5
Ukraine	−5.2	−21.9	11.2	8.0	−0.5	−4.3	−10.1

Source: wiiw.

[1] *According to gross value added data.*

[1] *Former Yugoslav Republic of Macedonia.*

Table 3

Average gross wages − total economy

	2008	2009	2010	2011	2012	2013	2014
Annual change in %							
Albania	25.3	5.2	−3.6	4.9	2.9	−3.2	1.8
Bosnia and Herzegovina	16.7	8.1	1.1	4.5	1.5	0.1	−0.2
Kosovo[1]	3.6	20.4	16.2	21.7	1.7	0.6	16.9
FYR Macedonia	8.7	14.1	1.0	1.2	0.2	1.2	1.0
Montenegro	22.5	5.6	11.2	1.0	0.7	−0.1	−0.4
Serbia	17.9	−3.3	7.5	11.1	8.9	5.7	1.2
Ukraine	33.7	5.5	17.5	17.6	14.9	7.9	6.6

Source: wiiw.

[1] *Average net monthly wages.*

Table 4

Unemployment rate[1]

	2008	2009	2010	2011	2012	2013	2014
%							
Albania	13.1	13.8	14.0	14.0	13.4	15.9	17.5
Bosnia and Herzegovina	23.4	24.1	27.2	27.6	28.0	27.5	27.5
Kosovo	47.5	45.4	45.1	44.8	30.9	30.0	35.3
FYR Macedonia	33.8	32.2	32.0	31.4	31.0	29.0	28.0
Montenegro	17.2	19.3	19.6	19.7	19.7	19.5	18.0
Serbia	13.6	16.1	19.2	23.0	23.9	22.1	18.9
Ukraine	6.4	8.8	8.1	7.9	7.5	7.2	9.3

Source: wiiw.

[1] *Labor force survey, period average.*

Table 5

Industrial producer price index

	2008	2009	2010	2011	2012	2013	2014
Period average, annual change in %							
Albania	4.2	0.4	0.3	2.6	1.1	−0.4	−0.5
Bosnia and Herzegovina	8.6	−3.4	1.0	5.5	0.3	−1.8	−0.5
Kosovo[1]	1.3	3.8	4.1	4.5	1.9	2.5	1.7
FYR Macedonia	10.1	−7.2	8.7	11.9	1.4	−1.4	−1.9
Montenegro	14.0	−3.9	−0.9	3.2	1.9	1.6	0.1
Serbia	12.4	5.6	13.7	12.7	6.8	2.7	1.3
Ukraine	35.5	6.5	20.9	19.0	3.7	−0.1	17.1

Source: wiiw.

[1] *Kosovo: NACE 1 classification.*

Table 6

Consumer price index

	2008	2009	2010	2011	2012	2013	2014
	Period average, annual change in %						
Albania	3.4	2.3	3.6	3.4	2.0	1.9	1.6
Bosnia and Herzegovina	7.5	−0.4	2.1	3.7	2.0	0.2	−0.9
Kosovo	9.4	−2.4	3.5	7.3	2.5	1.8	0.4
FYR Macedonia	8.3	−0.8	1.6	3.9	3.3	2.8	−0.3
Montenegro	7.4	3.4	0.5	3.3	4.0	1.8	−0.5
Serbia	13.5	8.6	6.8	11.0	7.8	7.8	2.9
Ukraine	25.2	15.9	9.4	8.0	0.6	−0.3	12.1

Source: wiiw.

Table 7

Trade balance

	2008	2009	2010	2011	2012	2013	2014
	% of GDP						
Albania	−27.6	−26.6	−23.1	−24.2	−20.8	−20.6	−22.3
Bosnia and Herzegovina	−41.1	−30.8	−29.3	−30.8	−30.5	−27.4	−29.7
Kosovo	−42.4	−40.5	−39.6	−42.5	−40.5	−37.5	−37.5
FYR Macedonia	−28.6	−25.8	−21.6	−25.2	−26.5	−23.0	−21.7
Montenegro	−65.6	−44.3	−40.8	−40.4	−44.1	−39.9	−40.2
Serbia	−25.2	−16.5	−15.9	−16.4	−17.8	−12.1	−12.4
Ukraine	−9.3	−4.4	−6.8	−10.6	−12.0	−11.7	−5.4

Source: wiiw.

Table 8

Current account balance

	2008	2009	2010	2011	2012	2013	2014
	% of GDP						
Albania	−15.7	−15.4	−11.3	−13.2	−10.2	−10.9	−12.9
Bosnia and Herzegovina	−13.8	−6.4	−6.0	−9.5	−8.7	−5.7	−7.6
Kosovo	−11.9	−9.2	−11.7	−13.7	−7.5	−6.4	−8.0
FYR Macedonia	−12.7	−6.8	−2.0	−2.5	−3.2	−1.7	−0.8
Montenegro	−49.8	−27.9	−22.9	−17.7	−18.7	−14.6	−15.4
Serbia	−21.1	−6.6	−6.8	−10.9	−11.6	−6.1	−6.0
Ukraine	−6.8	−1.4	−2.1	−6.0	−7.9	−8.8	−3.5

Source: wiiw.

Table 9

Net FDI inflows

	2008	2009	2010	2011	2012	2013	2014
	% of GDP						
Albania	7.6	8.3	8.8	6.8	6.9	9.8	8.7
Bosnia and Herzegovina	5.2	1.4	2.4	2.7	2.3	1.7	2.7
Kosovo	9.4	7.1	8.3	8.2	4.5	5.3	2.8
FYR Macedonia	5.9	2.1	2.3	4.6	1.5	3.1	2.4
Montenegro	21.2	36.9	18.5	12.4	15.3	10.1	10.9
Serbia	8.0	6.8	4.3	10.6	3.2	4.5	4.5
Ukraine	5.7	3.9	4.6	4.3	4.5	2.4	0.6

Source: wiiw.

Table 10

Reserve assets excluding gold

	2008	2009	2010	2011	2012	2013	2014
	End of period, % of GDP						
Albania	18.7	18.6	20.6	20.0	19.9	20.5	21.5
Bosnia and Herzegovina	24.7	24.8	25.2	23.9	24.2	25.8	28.0
Kosovo	16.5	14.2	14.4	11.9	16.6	15.0	13.6
FYR Macedonia	20.1	21.1	20.9	23.9	25.3	22.2	26.0
Montenegro	10.1	13.3	13.4	9.4	11.0	12.7	15.9
Serbia	23.5	33.5	32.1	34.4	32.5	31.3	28.3
Ukraine	17.0	20.5	23.6	19.4	12.1	9.6	5.4

Source: wiiw.

Table 11

Gross external debt

	2008	2009	2010	2011	2012	2013	2014
	End of period, % of GDP						
Albania	37.9	41.5	45.6	53.5	57.5	66.1	69.6
Bosnia and Herzegovina	49.0	55.0	51.6	48.9	52.2	51.0	51.7
Kosovo	19.0	29.3	31.2	29.7	30.0	30.2	31.7
FYR Macedonia	48.8	55.9	57.8	64.2	68.2	64.3	70.2
Montenegro[1]	15.6	23.5	29.4	32.9	41.1	43.1	45.6
Serbia	62.3	72.7	79.0	72.2	80.9	75.1	78.0
Ukraine	56.1	82.8	83.1	80.5	71.9	72.5	103.9

Source: wiiw.

[1] *Gross external public debt.*

Table 12

General government balance

	2008	2009	2010	2011	2012	2013	2014
% of GDP							
Albania	−5.6	−7.1	−3.1	−3.5	−3.4	−5.0	−5.2
Bosnia and Herzegovina	−2.1	−4.3	−2.4	−1.2	−2.0	−2.1	−2.0
Kosovo	0.1	0.1	−1.8	−1.1	−1.2	−2.5	−3.0
FYR Macedonia	−0.9	−2.7	−2.4	−2.6	−3.9	−4.0	−3.9
Montenegro	−0.4	−5.7	−4.9	−3.7	−6.6	−3.8	−3.0
Serbia	−2.6	−4.4	−4.6	−4.8	−6.8	−5.5	−6.7
Ukraine	−1.4	−3.9	−5.8	−1.7	−3.5	−4.2	−4.6

Source: wiiw.

Table 13

Gross general government debt

	2008	2009	2010	2011	2012	2013	2014
% of GDP							
Albania	55.1	59.7	57.7	59.4	62.1	70.9	70.2
Bosnia and Herzegovina	30.8	36.2	39.3	40.8	42.7	42.6	45.9
Kosovo	×	6.1	5.9	5.3	8.1	8.9	10.6
FYR Macedonia	27.7	31.4	34.6	32.0	38.3	40.4	45.8
Montenegro	29.0	38.2	40.9	46.0	54.0	56.3	56.7
Serbia	28.3	32.8	41.8	45.4	56.2	59.6	71.0
Ukraine	19.1	33.6	38.6	35.1	35.3	38.8	70.2

Source: wiiw.

Table 14

Broad money

	2008	2009	2010	2011	2012	2013	2014
End of period, annual nominal change in %							
Albania (M2)	7.2	6.8	12.5	9.2	5.0	2.3	4.0
Bosnia and Herzegovina (M2)	4.1	2.2	7.2	5.8	3.4	7.9	7.8
Kosovo (M2)	23.6	11.2	12.9	8.8	7.1	17.3	−4.2
FYR Macedonia (M3)	7.1	4.0	8.4	7.5	0.5	0.2	7.2
Montenegro (M2)	−41.5	−7.0	3.4	2.1	8.4	4.8	9.1
Serbia (M2)	9.8	21.5	12.9	10.3	9.4	4.6	8.7
Ukraine (M3)	31.0	−5.4	23.1	14.2	13.1	17.5	5.4

Source: wiiw, European Commission.

Table 15

Official key interest rate

	2008	2009	2010	2011	2012	2013	2014
	End of period, %						
Albania (one-week repo rate)	6.25	5.25	5.00	4.75	4.00	3.00	2.25
Bosnia and Herzegovina[1]	×	×	×	×	×	×	×
Kosovo[2]	×	×	×	×	×	×	×
FYR Macedonia (CB bills)[3]	7.00	8.50	4.11	4.00	3.73	3.25	3.25
Montenegro[2]	×	×	×	×	×	×	×
Serbia (two-week repo rate)[4]	17.75	9.50	11.50	9.75	11.25	9.50	8.00
Ukraine (discount rate)	12.00	10.25	7.75	7.75	7.50	6.50	14.00

Source: wiiw.

[1] Currency board.
[2] Unilateral euroization.
[3] Monthly weighted average interest rate on Central Bank Bills auctions (28 days).
[4] 2002–05: Weighted average interest rates on securities used in open market operations by Narodna banka Srbije.

Table 16

Exchange rate

	2008	2009	2010	2011	2012	2013	2014
	Period average, national currency per EUR						
Albania	122.80	132.06	137.79	140.33	139.04	140.26	139.97
Bosnia and Herzegovina	1.96	1.96	1.96	1.96	1.96	1.96	1.96
Kosovo	×	×	×	×	×	×	×
FYR Macedonia	61.27	61.27	61.52	61.53	61.53	61.58	61.62
Montenegro	×	×	×	×	×	×	×
Serbia	81.44	93.95	103.04	101.95	113.13	113.14	117.31
Ukraine	7.71	10.87	10.53	11.09	10.27	10.61	15.72

Source: wiiw.

Notes

Periodical publications

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Geschäftsbericht (Nachhaltigkeitsbericht) German | annually
Annual Report (Sustainability Report) English | annually

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http://www.oenb.at/en/Publications/Oesterreichische-Nationalbank/Annual-Report.html

Konjunktur aktuell German | seven times a year

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Fakten zu Österreich und seinen Banken German | twice a year
Facts on Austria and Its Banks English | twice a year

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http://www.oenb.at/en/Publications/Financial-Market/Facts-on-Austria-and-Its-Banks.html

Financial Stability Report English | twice a year

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http://www.oenb.at/Publikationen/Statistik/Statistiken---Daten-und-Analysen.html

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