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# FOCUS ON EUROPEAN ECONOMIC INTEGRATION

Stability and Security.

Q2/15

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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# Contents



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# Call for entries: Olga Radzyner Award 2015

In 2000, the Oesterreichische Nationalbank (OeNB) established an award to commemorate Olga Radzyner, former Head of the OeNB's Foreign Research Division, who pioneered the OeNB's CESEE-related research activities. The award is bestowed on young economists for excellent research on topics of European economic integration and is conferred annually. In 2015, four applicants are eligible to receive a single payment of EUR 3,000 each from an annual total of EUR 12,000.

Submitted papers should cover European economic integration issues and be in English or German. They should not exceed 30 pages and should preferably be in the form of a working paper or scientific article. Authors shall submit their work before their 35th birthday and shall be citizens of any of the following countries: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, FYR Macedonia, Hungary, Kosovo, Latvia, Lithuania, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia or Ukraine. Previous winners of the Olga Radzyner Award, ESCB central bank employees as well as current and former OeNB staff are not eligible. In case of co-authored work, each of the co-authors has to fulfill all the entry criteria.

Authors shall send their submissions either by electronic mail to *eva.gehringer-wasserbauer@oenb.at* or by postal mail – with the envelope marked "Olga Radzyner Award 2015" – to the Oesterreichische Nationalbank, Foreign Research Division, POB 61, 1011 Vienna, Austria. Entries for the 2015 award should arrive by September 4, 2015, at the latest. Together with their submissions, applicants shall provide copies of their birth or citizenship certificates and a brief CV.

For detailed information, please visit the OeNB's website at *www.oenb.at/en/About-Us/Research-Promotion/Grants/Olga-Radzyner-Award.html* or contact Ms. Eva Gehringer-Wasserbauer in the OeNB's Foreign Research Division (write to *eva.gehringer-wasserbauer@oenb.at* or phone +43-1-40420-5205).

# 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 November 1, 2015.

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

# Recent economic developments and outlook

# Developments in selected CESEE countries:

## Gradual recovery in CESEE EU Member States continues, moderate growth in Turkey, stagnation in Russia[1,2]

### 1 Regional overview

Heterogeneous GDP growth in CESEE

Average real economic growth in Central, Eastern and Southeastern Europe (CESEE) amounted to 0.4% in the third quarter and 0.3% in fourth quarter of 2014 (quarter on quarter). Thus, economic expansion was only marginally faster in the second half of 2014 than in the first. The economic recovery that had set in CESEE in mid-2013 continued in the review period but did not really gain speed. This is partly due to the continuing weaknesses recorded in the euro area during the second half of 2014 and the lack of substantial trade impulses from the CESEE regions' number one trading partner. Furthermore, economic and political uncertainties also weighed on CESEE's economic performance. It should be noted, moreover, that regional average growth rates are dampened by the meagre performance of the Russian economy, which is by far the largest economy in the CESEE region. When excluding Russia, average growth in CESEE in the third and fourth quarter amounts to 0.7% and 0.6%, respectively, and thus stands noticeably above euro area readings. Consequently, the region's growth differential vis-à-vis the euro area, which came to a rather moderate 0.9 percentage points in 2014, would double to 1.9 percentage points if Russia was excluded from the CESEE aggregate.

In average annual terms, the year 2014 brought an acceleration of growth for seven of the countries under observation. The pickup was especially pronounced

Table 1

**Real GDP growth**

| | 2013 | 2014 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|
| | *Period-on-period change in %* | | | | | |
| Slovakia | 1.4 | 2.4 | 0.6 | 0.6 | 0.6 | 0.6 |
| Slovenia | –1.0 | 2.6 | 0.0 | 1.0 | 0.6 | 0.3 |
| Bulgaria | 1.1 | 1.7 | 0.1 | 0.3 | 0.4 | 0.4 |
| Croatia | –0.9 | –0.4 | 0.3 | –0.2 | 0.2 | 0.0 |
| Czech Republic | –0.7 | 2.0 | 0.3 | 0.3 | 0.4 | 0.4 |
| Hungary | 1.5 | 3.6 | 1.1 | 1.0 | 0.4 | 0.8 |
| Poland | 1.7 | 3.3 | 1.0 | 0.6 | 0.8 | 0.7 |
| Romania | 3.4 | 2.8 | 0.3 | –0.6 | 2.1 | 0.7 |
| Turkey | 4.2 | 2.9 | 1.7 | –0.5 | 0.4 | 0.7 |
| Russia | 1.3 | 0.6 | –0.2 | 0.2 | 0.0 | 0.0 |
| CESEE average[1] | 1.9 | 1.8 | 0.5 | 0.1 | 0.4 | 0.3 |
| Euro area | –0.5 | 0.9 | 0.3 | 0.1 | 0.2 | 0.3 |

*Source: Eurostat, national statistical offices.*

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

[1] *Compiled by Josef Schreiner with input from Stephan Barisitz, Markus Eller, Antje Hildebrandt, Florian Huber, Krisztina Jäger-Gyovai, Mathias Lahnsteiner, Isabella Moder, Thomas Reininger, Zoltan Walko and Julia Wörz.*

[2] *Cutoff date: April 14, 2015 (April 23 for fiscal data). This report focuses primarily on data releases and developments from October 2014 up to the cutoff date and covers Slovakia, Slovenia, Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania, as well as Turkey and Russia. Countries are ranked according to their level of EU integration. For statistical information on selected economic indicators for CESEE countries not covered in this section (Albania, Bosnia and Herzegovina, Kosovo, FYR Macedonia, Montenegro, Serbia and Ukraine), see the statistical annex in this issue.*

in the Czech Republic and Slovenia. Both countries managed to overcome recession and posted above-regional average growth rates of 2% and 2.6%, respectively, in 2014. Growth decelerated slightly from a solid level in Romania and somewhat more markedly in Turkey. Economic expansion halved to a very low but still positive level in Russia (mainly due to some positive carryover effects from 2013).

A comparison of economic activity in 2014 and 2008 shows that so far, real GDP has exceeded pre-crisis levels only in Poland and Turkey. In Russia and Slovakia, GDP stood moderately above its 2008 level, while in Bulgaria, the Czech Republic, Hungary and Romania, the 2008 level was only just reached in 2014. Slovenia, and even more so Croatia, continued to report gaps relative to their pre-crisis economic output.

Domestic demand became the major growth engine…

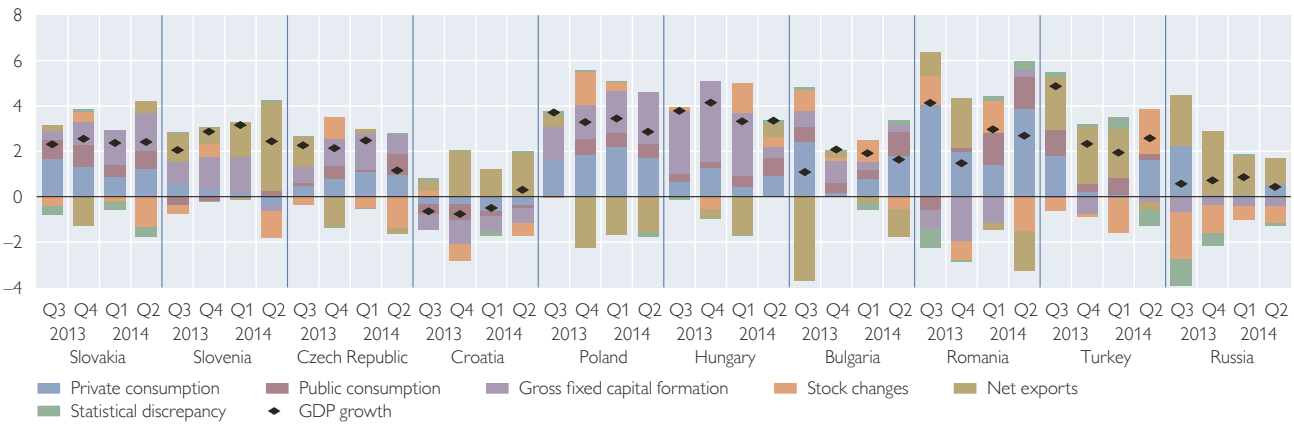
While domestic demand had still played a small role in supporting growth in 2013 in all the countries covered here but Turkey, it evolved into the most important driving force of economic activity in 2014. In several countries, domestic demand was even the only GDP component that contributed positively to growth by the fourth quarter of 2014 (e.g. Bulgaria, Czech Republic, Poland and Romania). In 2014, domestic demand contracted only in Croatia and Russia, while it moderated significantly in Turkey. The Russian economy generally suffered from deteriorating confidence, capital outflows and, during the latter part of 2014, from economic sanctions in connection with the conflict in eastern Ukraine and, very importantly, from the collapse of oil prices.

Private consumption in CESEE benefited from two factors in particular: improving labor market conditions and rising real wages in most countries. Unemployment rates have been falling consistently since early 2013 in most CESEE countries, in some cases substantially so. The monthly unemployment rate in Hungary, for instance, declined from 11.1% in January 2013 to 7.5% in February 2015, the lowest rate since early 2008. The decrease in unemployment was also substantial in Bulgaria, Poland and Slovakia. A clear upward trend was only reported for Croatia and, as of late, for Russia against the background of weak or

Chart 1

**GDP growth and its main components**

*Percentage points, GDP growth in %*




*Source: Eurostat, national statistical offices.*

weakening economic momentum. At the same time, employment expanded noticeably in most countries under observation (Russia and Slovenia being the exceptions in this respect). Against this backdrop, nominal wage growth was vivid, amounting to more than 3% in the region on average during the second half of 2014. Real wage growth was further boosted by low or even negative inflation rates especially in Central and Southeastern Europe. All of the above had a positive impact on consumer sentiment (see below).

Gross fixed capital formation expanded strongly especially in the Central European countries, which posted growth rates of gross fixed capital formation that were well above those of private consumption, while a contraction was reported only for Croatia, Russia and Turkey. Several factors can explain the pickup of investment activity in Central Europe: 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, which became even more pronounced in the context of rising capacity utilization rates. Capacity utilization reached the highest level since the outbreak of the crisis in several countries in early 2015 (e.g. in the Czech Republic, Poland, Slovakia and Slovenia). Investment was further spurred by a low-interest rate environment against the background of an accommodative monetary policy stance at home and abroad. Furthermore, the overlap of two programming periods sped up the absorption of EU funds and fostered public investment.

…while the external sector's contribution is significant only in a few countries

The contribution of net exports to growth was negative in countries with strong domestic demand, where import growth outpaced export growth. Net exports, however, remained an important pillar supporting GDP growth in Croatia, Russia and Slovenia (to a lesser extent also in Turkey). It needs to be noted that export growth was positive in all CESEE countries in the second half of 2014, thereby underlining the continuing demand for CESEE goods and services. Nevertheless, export growth decelerated somewhat in most countries against the first half of 2014. In some countries, this may be partly due to certain losses of earlier gains in price competitiveness vis-à-vis the euro area. Unit labor costs (ULC) in manufacturing (as measured in euro) increased faster than in the euro area in Bulgaria, Poland, Romania, Slovakia and Turkey during the second half of 2014. This development was driven by strong wage increases, while productivity grew more moderately. In the other countries, especially in the Czech Republic, Croatia, Hungary and Slovenia, wage increases were less pronounced and price competitiveness was further aided by some currency depreciation in annual comparison, leading to lower ULC in the observation period. The plunging Russian ruble drove ULC developments in Russia, more than offsetting a rather pronounced increase in manufacturing wages.

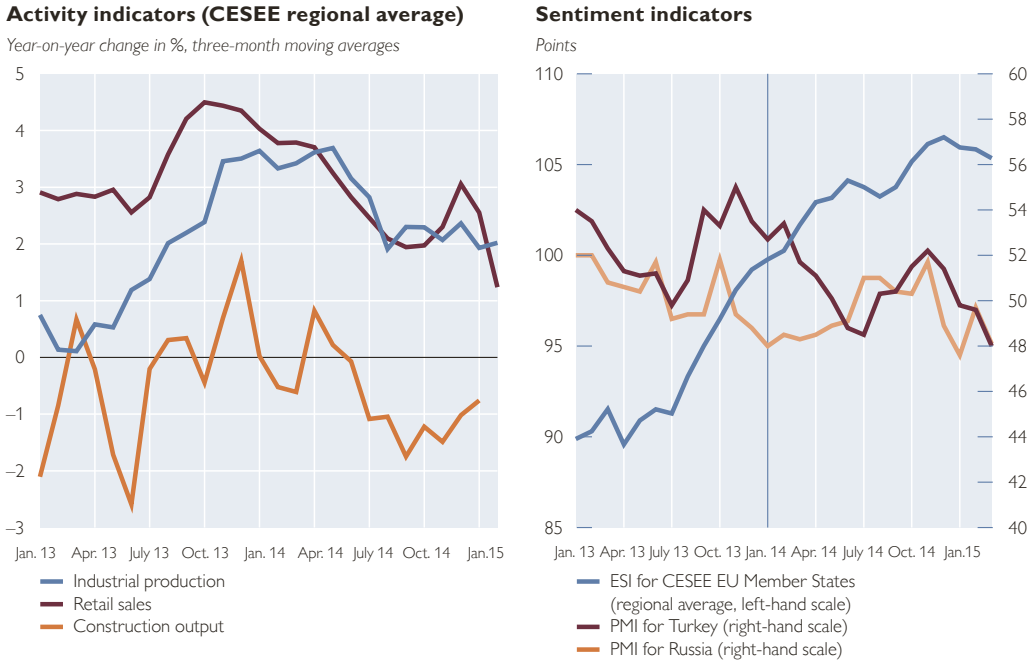
High-frequency indicators suggest no major change in growth dynamics in early 2015

High frequency activity indicators suggest a broadly steady pace of economic growth in early 2015 compared with what we observed in the second half of 2014. Industrial production and retail sale have been growing rather steadily at a rate of around 2.5% for the past months after they had come down by roughly 2 percentage points from their peaks in mid-2014 and late-2013. Construction continued to shrink in early 2015 but less so than before.

At the country level, industrial production was rising throughout the region with no country reporting a year-on-year decline in February. Roughly the same applies to retail sales, with the exception of Russia, which reported a marked

Chart 2

## Leading indicators




*Source: Eurostat, wiiw, European Commission, Markit.*

decline in retail sale growth during the past months, with sales even declining noticeably since January. Russia's weak performance also explains the dip in the regional average.

The European Commission's Economic Sentiment Indicator (ESI, average for the CESEE EU Member States) increased notably between August and December 2014, reaching a peak at 106.5 points, the highest reading since summer 2007. It declined moderately afterward but is still above 105 and thus comfortably above its long-term average of 100. Especially consumer and retail trade confidence performed well, while confidence in the service sector decreased somewhat. On the country level, the strongest improvement was observed in Bulgaria, Croatia and Slovenia. Sentiment deteriorated somewhat in Hungary, coming down from a high level, tough. Available Purchasing Managers' Index (PMI) figures for Turkey and Russia deteriorated notably during the past months and stood at 48 points in both countries in March 2015.

**Credit growth remains rather muted**

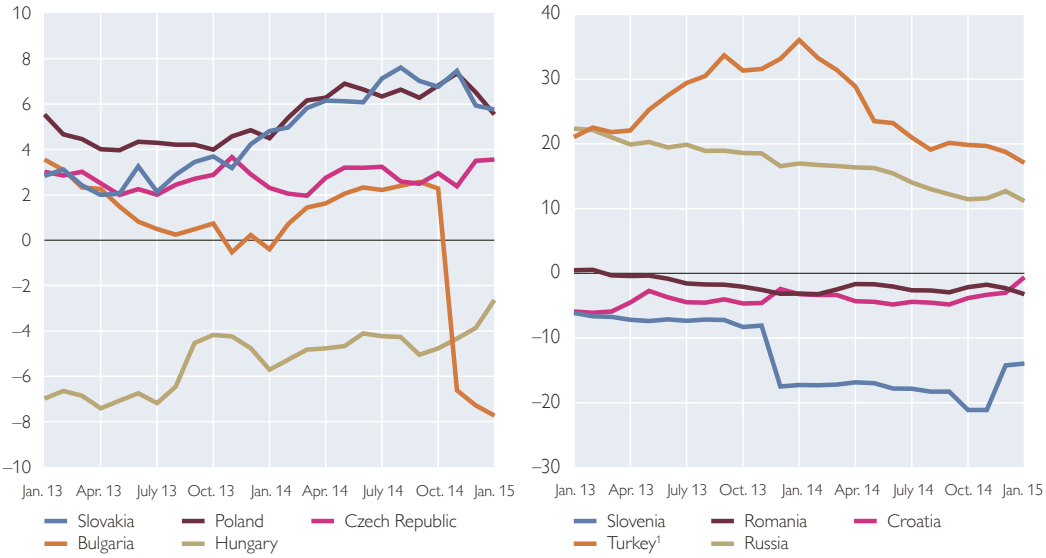
The positive momentum in growth of domestic credit to the private sector observed in the first half of 2014 moderated somewhat in the review period. In Croatia, Hungary and Slovenia the credit stock continued to decline, however less so than previously. Credit growth was positive and more or less steady in Poland and Slovakia (on a somewhat higher level) and in the Czech Republic (on a more moderate level), while it continued to be marginally negative in Romania. A decline from high credit growth rates was reported for Russia and Turkey. In Bulgaria, credit growth moved from moderately positive into considerably negative territory in late 2014.

In Bulgaria, this development can largely be explained by statistical reasons. In November 2014, the Bulgarian central bank revoked Corporate Commercial

Chart 3

**Growth of credit to the private sector**

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




*Source: National central banks.*

*[1] Nonadjusted.*

Bank's license to conduct banking activities. With this move, the bank's loans (some BGN 5.3 billion) were no longer included in the official monetary statistics. In Russia, the decline in credit growth rates was related to the increasingly fragile general economic environment. Furthermore, policy rates have been raised markedly. In Turkey, credit expansion came down further from very high levels amid a weakening economy and continuing external imbalances. The Turkish central bank promoted this process by setting several macroprudential measures to put a brake on the swift credit expansion.

Lending surveys point to a slight improvement in lending conditions: For example, the Emerging Markets Bank Lending Conditions Index as compiled for CESEE by the Institute of International Finance (IIF)[3] eased somewhat in the fourth quarter of 2014, with the overall index currently standing at 51.5 points (values above 50 indicate an easing of lending conditions). The development was mostly driven by banks reporting a surge in the index for loan demand, which jumped to 58 points in the fourth quarter. On the other hand, domestic funding conditions tightened substantially, with the subindex tumbling 11.2 points to 46.9. The improvement in international funding conditions was not sufficient to counterbalance this development so that overall funding conditions tightened for the first time since the beginning of 2014.

The most recent CESEE Bank Lending Survey of the European Investment Bank (EIB)[4], published in late 2014, draws a roughly comparable picture. Banks reported an increase in credit demand and a stabilization of supply conditions, although levels of both remain low. Both supply and demand are expected to

[3] *For further details, see www.iif.com/publications/em-bank-lending-conditions-survey.*

[4] *For further details, see www.eib.org/infocentre/publications/all/cesee-bls-2014-h2.htm?lang=en.*

improve in the next six months. Banks' assessment about credit demand is now close to the level of late 2012. Contrary to the IIF, the EIB reports funding conditions to be fairly favorable, with access to funding positive across all sources. It also finds increasing evidence of an emerging new funding model, with local funding playing a more prominent role, substituting for decreased cross-border funding (i.e. mainly intra-group funding of foreign-owned banks by their parent institutions).

This is in part confirmed by Bank of International Settlements (BIS) exposure data which, at the time of writing, were only available for the third quarter of 2014 however: The exposure of BIS reporting banks vis-à-vis CESEE declined by EUR 7.2 billion (or 0.2% of GDP) in the third quarter of 2014 (locational statistics, exchange rate adjusted), with reductions being reported for all countries but Bulgaria (which registered a minor inflow). At the same time, domestic deposits kept increasing in all countries but the Czech Republic, thus at least partly making up for the reduction in external funding.

The EIB survey found that CESEE remains clearly relevant in the strategies of international banking groups operating in the region. However, international banks continue to be selective in their country-by-country strategies. Roughly one-third of the groups surveyed expect to expand their operations in CESEE, while another third were found likely to reduce their operations in the region. Roughly half of the groups signal that they have been reducing their total exposure to CESEE, while only one-third expects to continue doing so. The profitability of banks' CESEE operations is emerging as a challenge. Expected returns on assets for CESEE operations have been decreasing compared with overall group results. Banks are also reviewing their assessments of the potential of some CESEE markets.

Price pressures continue to trend downward, except in Russia

With the exception of Russia, inflation rates continued to decline throughout the region and lay in negative territory in most countries in February 2015. The price level declined strongest in Bulgaria (–1.7%), but also noticeably in Hungary and Poland. Among all HICP components, it was especially energy and, to a lesser extent, unprocessed food items that pushed prices down. Deflation in the energy component was fueled by falling oil prices, which in February 2014 were more than 45% below their level a year earlier. Some upward pressure on prices came only from services and in some countries from processed food (including alcohol and tobacco). 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 rather stable and lay above headline inflation and in positive territory in all countries of the region. Only Bulgaria reported core deflation, albeit at a decelerating pace.

As mentioned above, Russia was the only country that experienced a marked increase in price pressures. The ongoing impact of the depreciation of the Russian ruble and the ban on most food imports from the EU especially continue to drive consumer prices. Headline consumer price inflation (CPI) rose by 16.9% and food prices by as much as 25.9% in March 2015. In Turkey, in turn, as opposed to the CESEE EU Member States, inflation has been declining get remaining in the high single digits.

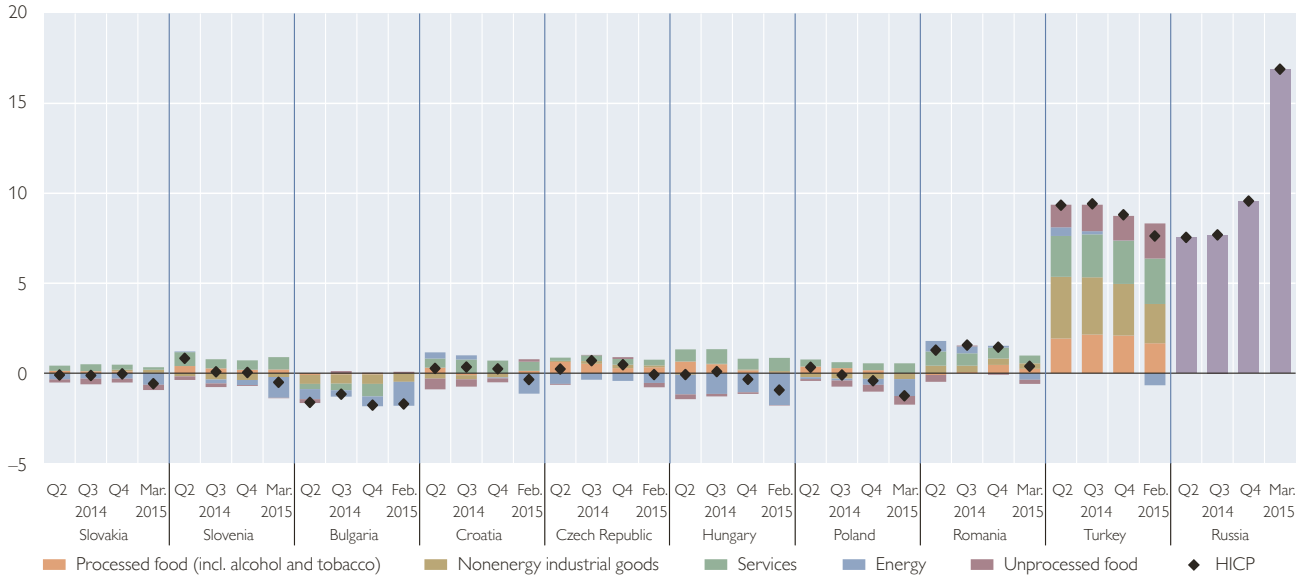
Is there a threat of a deflation spiral?

The question arises whether there are signs that the very low or negative inflation in the CESEE EU Member States is impacting on expectations and on real

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.*

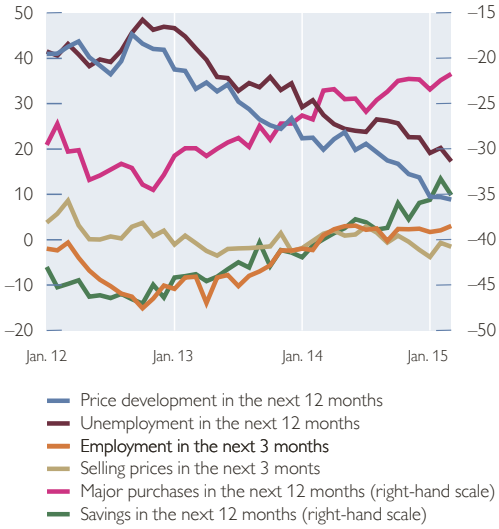
sector developments. So far, the evidence in this respect remains somewhat mixed but, overall, broadly benign.

Chart 5.1 shows selected results from the European Commission's Business and Consumer Survey, aggregated over the CESEE EU Member States. The survey reports a decrease in households' inflation expectations. In concrete terms, households on balance expect the inflation rate to moderately rise in the coming twelve months against the previous twelve months. Inflation expectations, as measured by the central banks in the CESEE EU Member States, show a broadly similar picture, i.e. that inflation expectations have moderated somewhat recently but that they have not become de-anchored. Industry expects selling prices to fall slightly in the next three months. Furthermore, expectations concerning future savings by households have gone up. To be more specific, households consider it more likely to save money over the coming twelve months than over the past year. Against the background of improved sentiment, increasing employment, falling joblessness and rising real wages, households' expected higher inclination to save does not necessarily point to an immediate risk of postponed consumption, which could trigger a harmful deflationary spiral of weakening private consumption, investment, wages and labor markets. In fact, none of the latter is yet visible in hard macroeconomic data, as sketched out above. Furthermore, and in addition to the past improvement in labor market data, the Business and Consumer Survey reports improving labor market prospects as perceived by both households and the industry. Expectations relating to major purchases have also improved and are currently on a multi-year high, which also calms concerns about deferred consumption due to expected lower prices in the near future.

Chart 5.1

**Selected survey findings for CESEE**

*Balance of positive and negative answers*

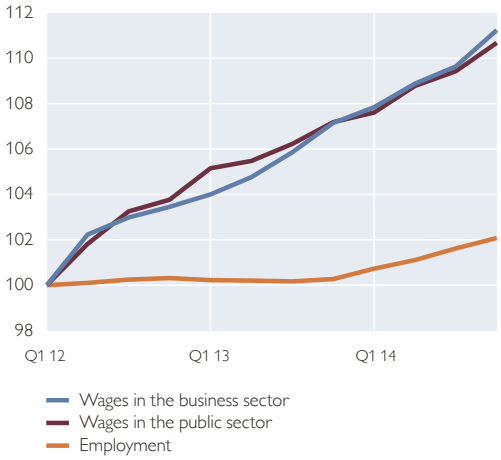



*Source: European Commission: Business and Consumer Survey.*

Chart 5.2

**Wages and employment in CESEE**

*Index: Q1 12 = 100*




*Source: Eurostat.*

The risk arising from debt deflation seems to be rather contained, too. While the private sector is still notably indebted in several countries (e.g. Bulgaria, Hungary and to a lesser extent Croatia and Slovenia), rising nominal incomes and stable, or sometimes moderately declining, interest rates have prevented debt service-to-income ratios from increasing. Looking forward, interest rates are expected to remain at low levels for some time in the CESEE EU Member States, and some of the countries concerned which have flexible exchange rate regimes in place still have some room to lower policy rates while euro area countries in CESEE and countries that keep their currencies at a steady rate to the euro should benefit from quantitative easing in the euro area.

Having said all this, it needs to be stated that it is still too early to draw a final judgement on the threat of a deflation spiral. After all, falling prices are a rather recent phenomenon in several of the CESEE countries. Furthermore, the CESEE countries are affected by deflationary risks to different degrees. Risks from deflation are of course more pronounced in countries with a weaker underlying economic momentum.

At the current juncture, however, it seems safe to say that the oil price shock and the associated decline in price pressures have predominantly boosted purchasing power and supported consumption in CESEE. It would take a major shift in wage dynamics or in inflation expectations to bring about a fall in private consumption. If the oil price stays at its current level, it will support economic activity in the euro area and thus strengthen external demand for the CESEE EU Member States. Finally, unless expectations change substantially and the oil price falls further, base effects will kick in from the fall onward and ceteris paribus lift the inflation rate back into positive territory. Nevertheless, keeping a close eye on incoming price-, activity- and expectations-related data is certainly warranted over the near future, given that the CESEE economies are moving in largely

unchartered waters as regards the current environment of exceptionally low inflation.

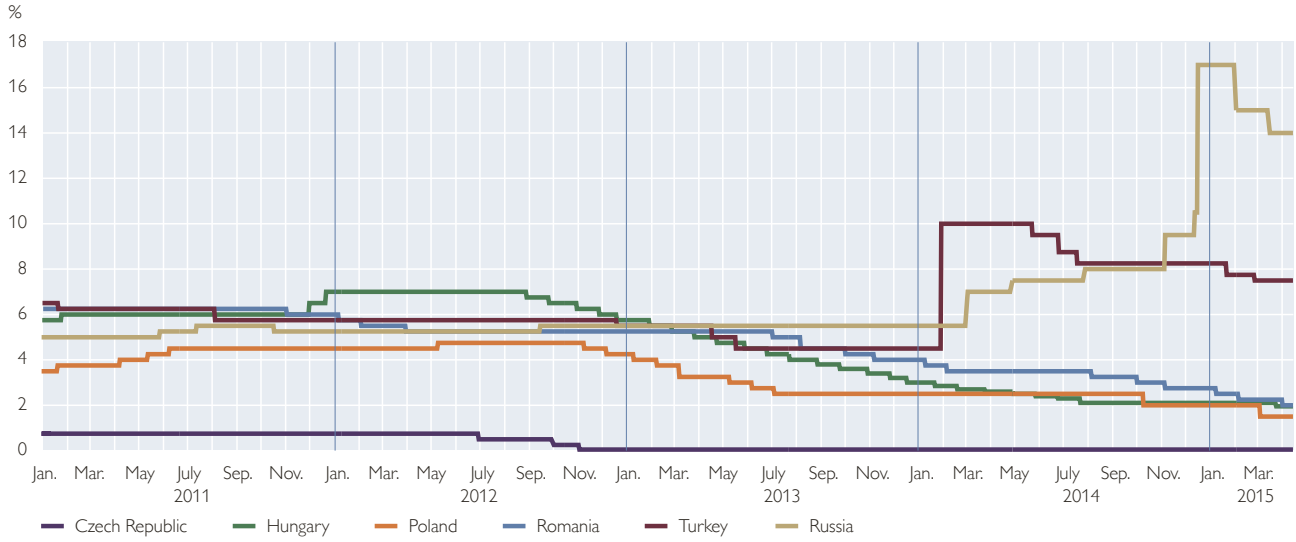
Further monetary easing in CESEE

Against the backdrop of low inflation rates or deflation, the central banks of the CESEE countries continued to pursue a policy of monetary accommodation. The Polish central bank and the Romanian central bank cut their policy rates by a total of 100 basis points from October 2014 to April 2015 to 1.5% and 2%, respectively. The Hungarian central bank lowered its policy rate by 15 basis points to 1.95% in March 2015. Despite higher (but declining) inflation rates, also the Turkish central bank reduced its policy rate by 75 basis points to 7.5% in the review period. The Czech Republic's policy rate has been standing at "technically zero" since October 2012. In November 2013, the Czech central bank decided to use the exchange rate as an additional instrument for easing monetary conditions. In February 2015, it announced that it would continue to do so at least until the second half of 2016. Apart from that, monetary conditions were further loosened by means of a reduction of minimum reserve requirements in Croatia and Romania. The Hungarian central bank extended the volume and duration of its "Funding for Growth" scheme (FGS) and launched an additional FGS+.

The Russian central bank was the only central bank in the region to tighten monetary policy as the Russian ruble came under severe pressure in the context of falling oil prices, escalating tension in the conflict with Ukraine, Western European sanctions and capital flight. The policy rate was hiked by a total of 900 basis points to 17% between October and mid-December 2014. Furthermore, the Russian central bank formally abolished its exchange rate policy mechanism and moved to a floating exchange rate regime in early November 2014. In January and March 2015, however, the central bank again lowered interest rates by a total of 300 basis points to 14%, citing a shift in the balance of risks toward a more significant cooling of the economy. In early February 2015, the Russian ruble stabilized after reaching an all-time low in mid-December 2014. The currency has

Chart 6

**Policy rate developments in CESEE**

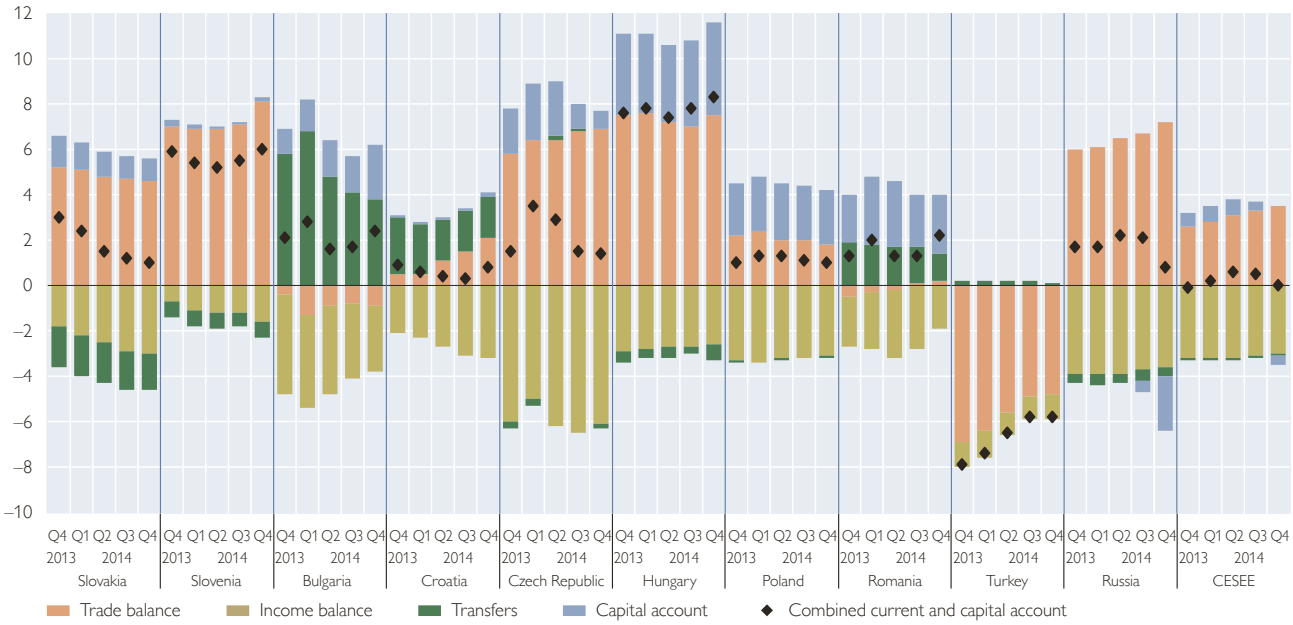



*Source: National central banks.*

Chart 7

**Combined current and capital account balance**

*% of GDP, four-quarter moving sum*




*Source: Eurostat, IMF, national central banks.*

even started to rally in April recovering a substantial part of its losses from the second half of 2014.

External position of CESEE countries remains solid…

The combined current and capital account for CESEE as a whole deteriorated somewhat in the review period, coming down from a surplus of 0.6% of GDP in mid-2014 (four-quarter moving sum) to a balanced account at end- 2014. This development was driven predominantly by Russia. The countries' capital account switched from being in balance to posting a deficit of 2.3% of GDP in the review period, as the country has written off Cuba's outstanding debt. The current account in isolation posted an improvement of 1 percentage point of GDP mainly thanks to a higher surplus in the goods and services balance. Apart from Russia, the combined current and capital account surplus moderated substantially in the Czech Republic, as inflows via the capital account came down from rather high levels.

Most of the other CESEE countries reported higher surpluses in their combined current and capital accounts. Most of the improvement was related to better outcomes in the trade balance (partly related to terms of trade effects), while the capital account was a major factor in Bulgaria and Hungary and the income balance played a key role in Romania.

… but Russia reports substantial capital outflows

Net capital flows to the ten CESEE countries as a whole, as recorded in the financial account, decelerated markedly from –4.7% of GDP in the second quarter of 2014 to –7.9% of GDP in the fourth quarter of 2014 (four-quarter moving sums). The deterioration was driven by net portfolio and FDI flows turning negative amid continuing substantial outflows from other investments.

Regional developments as regards the financial account were again very much driven by Russia. Net outflows from Russia increased by more than EUR 28 bil-

lion in the review period. Most of this deterioration came from FDI. Outflows from the other components of the financial account increased as well, however. As chart 8 shows, the financial account deteriorated also in the Czech Republic, Croatia and Hungary (remaining in surplus in the Czech Republic, however). In all three countries, it was especially outflows from portfolio investments that weighed on the financial account. In the Czech Republic, lower other investments played a role, too.

The financial account balance remained broadly unchanged in the other CESEE countries except for Bulgaria, where portfolio and especially other investments improved notably. This was related to a rise in government liabilities abroad. It needs to be noted, however, that despite remaining broadly stable, the financial account posted a substantial deficit in Slovenia, thus largely offsetting the surplus in the combined current and capital account balances.

No major progress in fiscal consolidation in 2014

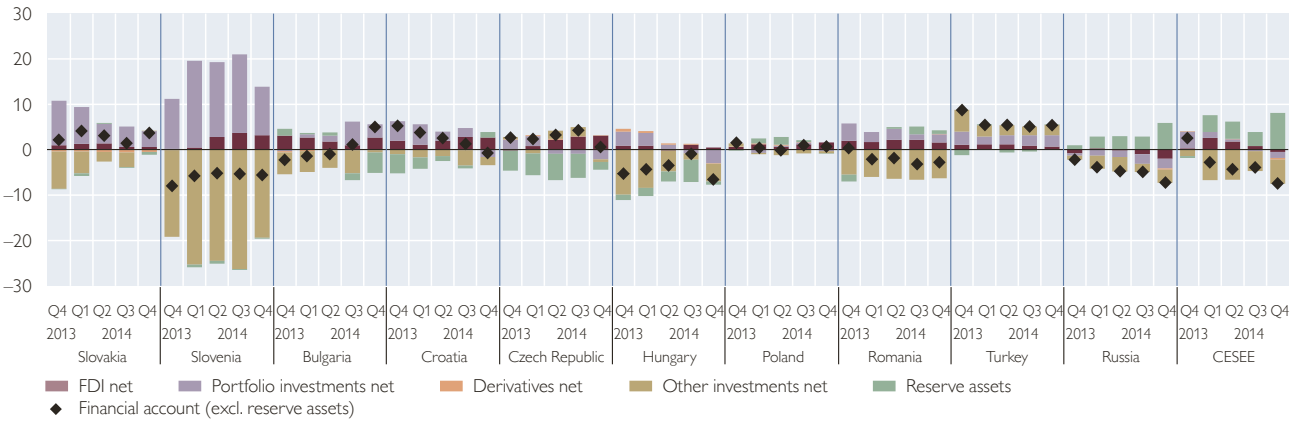
In 2014, budget deficit ratios remained by and large at similar levels as in 2013 and the fiscal stance was broadly neutral in most CESEE countries. A stronger deficit reduction was only reported for Slovenia. Here the deficit came down from a record level in 2013, which was profoundly influenced by one-off factors, including those related to bank recapitalization. Adjusted for these one-off factors, the Slovenian deficit fell only moderately between 2013 and 2014.

A notably increasing budgetary gap was reported only for Bulgaria (+1.9 percentage points of GDP). Public finances in Bulgaria were burdened by the closure of Corporate Commercial Bank and the associated payments from deposit guarantees. As the country's Deposit Insurance Fund was not sufficiently endowed to satisfy all claims, the government extended a loan amounting to EUR 1 billion to the fund. In addition to that, weaker-than-expected revenues (partly related to lower tax collection in relation to the falling price level) weighed on the Bulgarian budget.

Chart 8

**Financial account balance**

*% of GDP, four-quarter moving sum*




*Source: National central banks.*

Croatia, Poland and Slovenia remain the only CESEE EU countries still subject to an excessive deficit procedure. The target dates for deficit correction currently stand at 2015 for Slovenia and Poland and at 2016 for Croatia. All three countries will need to take further consolidation measures to reach the agreed targets.

Turkey and Russia, in turn, continued to record moderate budget deficits in the order of 1% to 1½% of GDP in 2014, i.e. budget figures barely changed from 2013.

Box 1

## Western Balkans:[1] weak growth performance and very low or slightly negative inflation in 2014

*In 2014, growth performance was uneven across the Western Balkans: In FYR Macedonia and Albania, real GDP growth was stronger in 2014 than in 2013 while in the rest of the Western Balkans, economic growth was weaker (or is expected to turn out to be weaker) than the year before.[2] Generally, growth rates remain too low to foster a more vivid catching-up process. With a real GDP growth of 3.8%, FYR Macedonia reported the highest growth rate among the Western Balkans (2013: 2.7%) last year, despite a slowdown in the final quarter of 2014.[3] In Albania, economic growth was particularly strong in the third quarter of 2014 at 3.9%. Due to a weak performance in the first half of 2014, the Albanian economy just grew by 1.9% in 2014, somewhat more than in 2013 (1.4%). In FYR Macedonia and Albania, economic growth was largely driven by higher investments (predominately by public investments in FYR Macedonia). However, gross fixed capital formation (GFCF) slowed down in the final quarter of 2014 in FYR Macedonia. Exports accelerated strongly in FYR Macedonia in 2014 but this effect was partly compensated by investment-related imports. Additionally, higher private consumption contributed positively to GDP growth in Albania. Accelerated private consumption (bolstered by pre-election public wage increases and a higher inflow of remittances) also supported economic growth in Kosovo. However, weak investment activity and a negative contribution of net exports curbed GDP annual growth rates to 1.7% in the first, –2.5% in the second and 1.4% in third quarter of 2014 (2013: 3.4%). Economic growth in Montenegro is projected to have fallen to 1.4% in 2014 (against 3.3% a year earlier), which is largely the result of declining exports (in particular of energy) and higher imports. Growth was particularly weak in the second quarter of 2014. Bosnia and Herzegovina as well as Serbia were strongly affected by spring floods, which had a negative effect on economic performance in the subsequent quarters. In Bosnia and Herzegovina, real GDP growth declined to 1.4% in 2014 from 2.5% in 2013. However, economic growth in Bosnia and Herzegovina accelerated in the final quarter of 2014 due to a pickup of private consumption. Economic growth in Serbia moved into negative territory (from 2.6% in 2013 to –1.8% in 2014) and was particular weak in the third quarter of 2014. Apart from the negative effects of the spring flood, Serbia had to cope with declining private consumption (partly related to public wage and pension cuts), weak export growth and contracting GFCF.*

*Despite some easing in 2014, unemployment in the Western Balkans remains one of the greatest problems of the region. It has major repercussions on the overall economic performance, reflected i.a. in widespread poverty across the population and high emigration rates accompanied by brain drain. Moreover, migrant workers may return to the Western Balkans when economic developments in the host countries deteriorate, thus putting additional pressure on domestic labor markets. At around 30%, Bosnia and Herzegovina, FYR Macedonia and Kosovo continued to register the highest unemployment rates in the region in 2014. In Albania, the unemployment rate even rose significantly in the course of 2014 (from below 16% to 17.5%) due to a weak growth performance as well as to the large number of migrants returning from crisis-hit Greece and Italy. In Serbia, the unemployment rate dropped relatively strongly from about 22% to 17.6% in spite of contracting GDP, as employment figures rose and unemployment figures fell. Given the country's continued weak GDP dynamics, it remains to be seen how sustainable this reduction in the unemployment rate is.*

*Most Western Balkan countries continue to post external imbalances. In 2014, chronically high current account deficits in most countries even widened across the region, largely driven by accelerated trade deficits that were mainly due to decelerating export and rising import*

[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 term "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] *Real GDP data for the fourth quarter of 2014 are not yet available for Montenegro and Kosovo.*

[3] *Since no GDP data are available for Albania, we refer to gross value added.*

*activity. In Montenegro, the country with the highest shortfall, the current account increased further to above 15% of GDP in 2014. In Albania and Bosnia and Herzegovina, the deficit widened by roughly 3 percentage points of GDP to almost 13% and almost 8%, respectively, in 2014. At 8%, the current account deficit also moved upward in Kosovo against 2013. Only in FYR Macedonia, which had recorded a low current account shortfall over the past few years, the deficit declined to 1.3% in 2014 (from 1.8% in 2013) as exports accelerated strongly. Serbia's deficit remained broadly unchanged (6%).*

*Credit growth in FYR Macedonia remained strong also in 2014 (almost +9%), driven by GDP growth and continuously improving lending conditions. According to the IMF (2015), tight prudential regulations are in place to ensure that credit developments remain on a sound footing.[4] Bosnia and Herzegovina also showed solid growth rates (+4.5%) after suppressed lending activity in 2013. In Albania and especially in Serbia, credit growth picked up in the second half of 2014 after a sluggish expansion in the first half of the year. In Serbia, credit growth even accelerated to more than 8% in the final quarter of 2014. This development was partly supported by a subsidized loan program. However, the picture changes completely when it comes to exchange rate-adjusted credit growth. In this case, due to the depreciation of the Serbian dinar in the course of 2014, credit growth remained negative throughout the year. In Kosovo and Montenegro, credit growth increased somewhat in the first half of 2014 but turned negative in the second half. The banking sectors across the region are strongly burdened by high NPL ratios, which depress new lending activity. Albania records the highest NPL ratio but managed to reduce it somewhat from above 23% at the end of 2013 to below 22.8% at the end of 2014. With less than 10%, Kosovo reports the lowest NPL ratio in the Western Balkans.*

*In the second half of 2014, inflation remained subdued in all Western Balkan countries. Low inflation or deflation is largely the result of declining prices for energy and for food as well as of low demand-side price pressures. Disinflation pressure from the euro area was another factor, especially in countries that peg their currencies to the euro. Bosnia and Herzegovina, FYR Macedonia and Montenegro even registered negative inflation rates throughout this period. In Bosnia and Herzegovina and FYR Macedonia, inflation stayed negative in the beginning of 2015, while in Montenegro annual inflation turned slightly positive in March 2015. Price growth in Kosovo decelerated in the course of 2014 to almost zero in the final quarter of 2014 and turned negative in the first quarter of 2015. Both inflation-targeting countries – Albania and Serbia – undershot the lower bound of their inflation targets. In Albania, the target is set at 3% ±1 percentage point, but inflation stayed below 2% in the second half of 2014. Inflation in Serbia dropped from almost 3% in the first quarter of 2014 to 2% in the final quarter, thus also dipping below the lower bound of the inflation target, which is set at 4% ±1.5 percentage points. In the beginning of 2015, inflation started to pick up in Albania (coming to more than 2% in February and March 2015) while it continued to decline in Serbia (to 0.8% in February) and only accelerated in March (to 1.9%). On the back of low inflation, both countries lowered their key interest rates. During the review period, the Albanian central bank cut its key interest rate by 25 basis points both in November 2014 and January 2015, when it came to 2.0%. The Albanian lek has remained broadly stable against the euro over the past six months. In Serbia, the key interest rate was also cut in three steps, from 8.5% in November 2014 to 7.0% in April 2015. The Serbian dinar lost almost 4% of its value from October 2014 to end-January 2015. Since February 2015, it has strengthened against the euro. The Serbian central bank has intervened frequently in the foreign exchange market to reduce exchange rate volatility.*

*Regarding the fiscal situation in 2014, Albania, Montenegro and Serbia managed to meet their fiscal targets. Albania recorded a deficit of 5.1% of GDP in 2014 (2013: –4.9%), against a fairly unambitious target of exactly 5.1%. In Montenegro, in turn, the shortfall declined to –1.5% in 2014 from –5.3% in 2013 because of a strong increase in revenues. In Serbia, the budget deficit widened to –6.7% in 2014 (2013: –5.5%) but turned out to be considerably*

[4] *IMF. 2015. IMF Executive Board Concludes the Fourth Post-Program Monitoring Discussion with Former Yugoslav Republic of Macedonia. Press Release No. 15/16. January 27.*

*lower than projected in autumn 2014 (forecast at the time: more than –8%). This development is largely the result of decisive austerity measures, which comprised cuts of public sector wages and of pensions. At –4.2%, the deficit of FYR Macedonia was slightly higher in 2014 than in 2013 and the country missed its fiscal target for 2014, which had been set at –3.9% of GDP. In Kosovo, the fiscal rule that sets a deficit target of 2% of GDP will be not be observed in 2014 as the deficit is expected to amount to 2.2% (3.1% in 2013). Higher expenditures in the run-up to elections and lower revenues due to weak economic performance led to a higher-than-expected deficit. Posting a deficit of 1.8% of GDP, Bosnia and Herzegovina missed its fiscal target (–1.1% of GDP) in 2014 because of higher-than-expected expenditures related to the spring floods.*

*In the review period, Bosnia and Herzegovina reached an important milestone in its process toward EU accession: In March 2015, the Council of the European Union agreed that the Stabilisation and Association Agreement (SAA) can enter into force as the country had undertaken measures to implement reforms required by the EU.*

*As to new developments in relations with the IMF, a three-year precautionary Stand-By Arrangement (SBA) with Serbia was approved in February 2015. This agreement is based on three pillars: the consolidation of public finances, financial sector resilience and structural reforms. After some delays in concluding the second review of the Extended Fund Facility (EFF) with Albania in September 2014, it was eventually finalized in February 2015 (together with the third review), allowing the country to draw an additional amount of about EUR 58.8 million (resulting in total disbursements of about EUR 117.7 million since the start of the program). The fourth EFF review took place in March 2015. According to the IMF, the program is on track. In December 2014, the IMF reconfirmed that it would not complete the eighth review of the SBA with Bosnia and Herzegovina since the country had not implemented some of the agreed policies. In January 2015, the IMF concluded its fourth and final Post-Program Monitoring with FYR Macedonia. One month later, the country repaid to the IMF all its outstanding obligations drawn from a Precautionary Liquidity Line approved in early 2011.*

Box 2

### Ukraine receives further international support conditional upon reforms; external debt restructuring to cover part of funding needs

*With the military conflict in eastern Ukraine hitting the Ukrainian economy through various channels, GDP shrank by 6.8% in 2014. The depreciation of the Ukrainian hryvnia continued and the exchange rate passthrough, together with rising administered prices, drove inflation up to 45.8% year on year in March 2015. Supported by the depreciation and despite production outfalls in the heavily industrialized east and trade disruptions with Russia, Ukraine's current account deficit decreased to 4% of GDP in 2014 as imports declined faster than exports. The fiscal deficit, including the state-owned gas company Naftogaz, reached about 10% of GDP, while public debt rose to 72.8% of GDP. While GDP contraction did not miss the IMF assumption made during the first review under the Stand-By Arrangement (SBA) in September (–6.5%) by a large margin, foreign reserves dropped well below expected figures, mainly due to massive capital outflows. Thus, it became increasingly obvious in the final quarter of 2014 that Ukraine needed additional funding to rebuild its foreign reserves.*

*Talks with the IMF on how to proceed with the assistance program started toward end-2014, following parliamentary elections and the formation of a new government. It took more than two months until an agreement was reached on an USD 17.5 billion Extended Fund Facility (EFF, approved in March by the IMF executive board), which replaced the SBA. The EFF is part of an international support package (comprising support by the IMF, EU and international financial institutions as well as bilateral aid from several countries) set up to cover a large part of Ukraine's USD 40 billion funding needs over the next four years. Financial support is connected to a comprehensive reform agenda, on which the Ukrainian authorities already started to deliver. External debt restructuring is expected to yield a financing contribution of USD 15 billion and restore Ukraine's debt sustainability. Discussions with sovereign and quasi-sovereign eurobond holders were initiated in March and are planned to be finalized in June.*

*Up to February 2015, the Ukrainian central bank struggled to contain the depreciation of the hryvnia. Some stabilization on the foreign exchange market could only be achieved in March, following a ceasefire agreement, the introduction of further capital controls, a key policy rate hike to 30% and the EFF announcement. After the disbursement of the first USD 5 billion IMF tranche, Ukraine's foreign reserves almost doubled to about USD 10 billion in March. The ceasefire, which was agreed as a first step within a broader conflict settlement package (Minsk-II) in mid-February, resulted – after a serious breach in the first days – in a noticeable decline of fighting. Yet, occasional violations continue to be reported by the OSCE special monitoring mission. Going forward, several further important steps will have to be taken under Minsk-II during the course of this year (inter alia the withdrawal of all heavy weapons, local elections under Ukrainian law, restoration of full government control of the state border, constitutional reform encompassing decentralization) to fully implement the package.*

## 2 Slovakia: GDP growth picked up moderately in 2014

Fixed investment as main growth engine

After a slowdown in the past few years, GDP growth in Slovakia reached 2.4% in 2014, the fastest pace since 2011. While previously, net exports were the main engine of growth, in 2014 growth was driven by the ongoing recovery of domestic demand. Fixed investment continued to grow robustly, combined with a more moderate recovery in household demand and higher public consumption. Net exports, in turn, had a slightly negative impact on GDP in 2014.

In the second half of 2014 gross fixed investment became the main driving force behind domestic demand. After five straight years of stagnation, household consumption began to show positive growth rates in 2014 supported by rising wages, low inflation, improving labor market conditions and by an increase in consumer confidence. Export and import growth slowed significantly during 2014. Due to stronger household consumption and investment as well as weak demand from the country's main trading partners, imports rose somewhat faster than exports.

First signs of labor market recovery

The labor market also showed signs of revival in 2014. The unemployment rate dropped by about 1 percentage point in 2014, while the employment rate increased by about 1 percentage point throughout the year. These represent the best outcomes since 2010 and 2009, respectively. Moreover, the rate of long-term unemployment fell considerably and there was some improvement in the youth unemployment rate, too. The overall levels of unemployment, however, remain rather high and broad regional disparities persist. Although the automotive industry – the largest sector in the Slovak economy, which had led growth in recent years – lost momentum in 2014, the planned expansion of production facilities by the country's three main car producers is expected to boost investment and industrial output in 2015 and 2016. Though the situation in Russia was expected to negatively affect Slovak car production, the car industry was largely successful in finding alternative markets such as Spain, Italy or Poland.

Inflation prospects unchanged

Slovakia was not spared by the disinflationary trend observed in the euro area, reporting an average annual inflation of –0.1% in 2014. Looking at the composition of the country's annual inflation rate, we see that energy prices pushed prices down all through 2014 and that food prices did so in the second half of the year. These dynamics could not be compensated by the moderate rise of prices in the service sector (throughout 2014) and of nonenergy goods (in the fourth quarter of 2014), resulting in a marginally negative total inflation rate.

General elections in 2016 are likely to drive up spending

Partly due to statistical reasons (switch to the new accounting methodology according to ESA 2010 and the subsequent reclassification of general government positions), general government debt in Slovakia did not exceed the 55% of GDP threshold introduced in the Fiscal Responsibility Act in 2014. This provided some welcome fiscal leeway for the Slovak government in its 2015 budget, which originally had been planned in anticipation of the debt brake rule. Against the background of parliamentary elections due next year, the government announced a set of substantial social measures including i.a. health insurance allowances, the introduction of minimum pensions, a wage rise in public administration, lower gas prices for households and the introduction of free rail transport for students and pensioners. Furthermore, the minimum wage was raised by 8% at the beginning of 2015. The Council for Budget Responsibility estimates that those measures will increase the Slovak deficit in 2015 to 2.5% of GDP compared with the original target of 2% of GDP.

Table 2

## Main economic indicators: Slovakia

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | 1.6 | 1.4 | 2.4 | 1.5 | 2.0 | 2.3 | 2.6 | 2.4 | 2.4 |
| Private consumption | –0.4 | –0.7 | 2.2 | –0.9 | –0.7 | 2.8 | 2.3 | 1.6 | 2.2 |
| Public consumption | –2.0 | 2.4 | 4.4 | 3.8 | 3.4 | 4.7 | 5.6 | 3.3 | 4.0 |
| Gross fixed capital formation | –9.3 | –2.7 | 5.7 | –5.7 | 5.8 | 2.1 | 5.3 | 7.7 | 6.8 |
| Exports of goods and services | 9.3 | 5.2 | 4.6 | 3.3 | 7.2 | 12.4 | 4.9 | 1.6 | 0.3 |
| Imports of goods and services | 2.6 | 3.8 | 5.0 | 1.4 | 8.4 | 12.9 | 6.7 | 1.7 | –0.2 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | –4.2 | 0.0 | 2.8 | –0.3 | 2.8 | 2.5 | 3.7 | 2.7 | 2.3 |
| Net exports of goods and services | 5.8 | 1.4 | –0.2 | 1.7 | –0.8 | 0.2 | –1.3 | –0.1 | 0.5 |
| Exports of goods and services | 8.0 | 4.8 | 4.2 | 2.9 | 6.8 | 11.5 | 4.6 | 1.4 | 0.3 |
| Imports of goods and services | –2.2 | –3.3 | –4.4 | –1.2 | –7.7 | –11.3 | –5.9 | –1.4 | 0.2 |
| | *Year-on-year change of the period average in %* | | | | | | | | |
| Unit labor costs in the whole economy (nominal, per hour) | 1.0 | 0.4 | 2.3 | –0.3 | –0.5 | 1.3 | 3.7 | 2.1 | 2.2 |
| Unit labor costs in manufacturing (nominal, per hour) | –7.3 | –2.2 | 1.8 | –3.0 | –7.6 | –4.6 | 0.3 | 5.3 | 6.2 |
| Labor productivity in manufacturing (real, per hour) | 12.8 | 8.1 | 2.8 | 8.1 | 11.4 | 6.2 | 4.2 | 0.4 | 0.6 |
| Labor costs in manufacturing (nominal, per hour) | 4.5 | 5.6 | 4.7 | 4.9 | 3.0 | 1.3 | 4.5 | 5.7 | 6.8 |
| Producer price index (PPI) in industry | 1.9 | –1.0 | –3.5 | –1.5 | –2.3 | –3.4 | –3.6 | –3.7 | –3.5 |
| Consumer price index (here: HICP) | 3.7 | 1.5 | –0.1 | 1.4 | 0.5 | –0.1 | –0.1 | –0.1 | –0.1 |
| | *Period average levels* | | | | | | | | |
| Unemployment rate (ILO definition, %, 15–64 years) | 14.0 | 14.3 | 13.2 | 14.1 | 14.3 | 14.1 | 13.2 | 12.9 | 12.6 |
| Employment rate (%, 15–64 years) | 59.7 | 59.9 | 61.0 | 60.0 | 59.8 | 60.2 | 60.7 | 61.3 | 61.7 |
| Key interest rate per annum (%) | 0.9 | 0.5 | 0.2 | 0.5 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 |
| | *Nominal year-on-year change in the period-end stock in %* | | | | | | | | |
| Broad money (including foreign currency deposits) | 6.6 | 5.9 | 4.9 | 5.6 | 5.9 | 7.3 | 6.9 | 5.4 | 4.9 |
| | *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 | –6.5 | 0.3 | 0.2 | 2.5 | 0.0 | 4.3 |
| Domestic credit of the banking system | 2.3 | –6.3 | 7.9 | –2.2 | 0.7 | 2.1 | 9.0 | 10.5 | 6.7 |
| *of which: claims on the private sector* | 6.8 | 5.3 | 10.5 | 3.4 | 5.1 | 5.7 | 6.2 | 7.1 | 5.1 |
| *claims on households* | 7.9 | 8.2 | 9.8 | 4.1 | 4.1 | 4.4 | 4.7 | 5.1 | 5.4 |
| *claims on enterprises* | –1.1 | –2.9 | 0.7 | –0.7 | 1.0 | 1.3 | 1.5 | 2.0 | –0.3 |
| *claims on the public sector (net)* | –4.5 | –11.6 | –2.6 | –5.6 | –4.4 | –3.5 | 2.8 | 3.4 | 1.7 |
| Other assets (net) of the banking system | 11.9 | 21.9 | –1.7 | 14.3 | 4.8 | 5.0 | –4.6 | –5.1 | –6.1 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 36.0 | 38.4 | 38.9 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 40.2 | 41.0 | 41.8 | . . | . . | . . | . . | . . | . . |
| General government balance | –4.2 | –2.6 | –2.9 | . . | . . | . . | . . | . . | . . |
| Primary balance | –2.4 | –0.7 | –1.0 | . . | . . | . . | . . | . . | . . |
| Gross public debt | 52.1 | 54.6 | 53.6 | . . | . . | . . | . . | . . | . . |
| | *% of GDP* | | | | | | | | |
| Debt of nonfinancial corporations (nonconsolidated) | 46.6 | 48.4 | . . | . . | . . | . . | . . | . . | . . |
| Debt of households and NPISHs (nonconsolidated) | 28.2 | 30.2 | . . | . . | . . | . . | . . | . . | . . |
| | *% of GDP (based on EUR), period total* | | | | | | | | |
| Trade balance[1] | 3.5 | 4.6 | 4.5 | 3.3 | 2.2 | 6.6 | 5.9 | 3.8 | 1.8 |
| Services balance[1] | 0.6 | 0.6 | 0.2 | 1.0 | –0.1 | 0.0 | 0.3 | 0.3 | 0.0 |
| Primary income[1] | –1.7 | –1.8 | –3.0 | –2.1 | –2.4 | –2.3 | –3.4 | –3.4 | –2.8 |
| Secondary income[1] | –1.4 | –1.8 | –1.6 | –1.8 | –1.6 | –1.9 | –1.7 | –1.5 | –1.3 |
| Current account balance[1] | 0.9 | 1.5 | 0.1 | 0.5 | –1.9 | 2.5 | 1.0 | –0.7 | –2.4 |
| Capital account balance[1] | 2.0 | 1.4 | 1.0 | 0.9 | 2.6 | 0.1 | 0.6 | 0.6 | 2.5 |
| Foreign direct investment (net) | 3.2 | 1.0 | 0.6 | 3.9 | 3.1 | 0.2 | –1.7 | 0.8 | 3.0 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt[1] | 76.0 | 82.1 | 90.1 | 86.0 | 82.1 | 90.9 | 89.1 | 92.7 | 90.1 |
| Gross official reserves (excluding gold)[1] | 0.9 | 0.9 | 1.5 | 0.9 | 0.9 | 1.5 | 0.9 | 1.1 | 1.5 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold)[1] | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 72,185 | 73,593 | 75,215 | 19,400 | 18,757 | 17,340 | 18,756 | 19,846 | 19,273 |

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

[1] *Data based on the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6).*

## 3 Slovenia: progress in reforms, but more remains to be done

Solid growth in 2014, but slowdown toward year-end

Real GDP in Slovenia grew by 2.6% in 2014 but still remained well below pre-crisis levels. The peak was reached in mid-year and the expansion lost some speed toward year-end. Especially investments, which had been the major driver of growth in the first three quarters of 2014 on the back of infrastructure projects cofunded by the EU, lost momentum. This trend is expected to last into 2015 as the intensified absorption of EU funds from two overlapping programming periods draws to an end while housing investments and investments in machinery and equipment are yet to recover. Final consumption posted the first positive growth rate in 2014 after three years of contraction, but also slowed down in the second half of the year despite accelerating real wage growth and further improving consumer confidence amid continued fiscal consolidation and stagnating employment. Hence, net exports again became the major growth driver in the final quarter of 2014. High frequency data suggest that the economy remained robust into early 2015. Inflationary pressures, however, remain very subdued, with the HICP in negative territory since December 2014.

Banking sector in better shape, outlook improving

The new government has remained committed to reforms, including i.a. bank and corporate restructuring, fiscal consolidation and privatization. The long-awaited asset quality review and the stress tests carried out by the ECB showed no capital shortfall under the baseline scenario for Slovenia. The country's two biggest banks (NLB and NKBM) showed a minor capital shortfall of EUR 65 million by 2016 under the adverse scenario which, however, was expected to be covered by retained profits for 2014. In December 2014, the European Commission approved the restructuring plan for Banka Celje and its merger with the previously rescued Abanka, which was followed by a recapitalization and the transfer of bad assets to the Bank Asset Management Company (BAMC). Also, the privatization of NKBM has progressed and the sale is expected to be finalized in the second quarter of 2015. Bank profitability has also substantially improved following the consolidation of the banking sector since late 2013, but the sector as a whole still posted a minor loss in 2014. The share of nonperforming claims (overdue more than 90 days) fell to 12% by December 2014, also supported by the transfer of bad claims to the BAMC. Nevertheless, the high level of nonperforming loans continues to hold back credit growth. Credit to households and nonbank corporations has continued to contract rapidly in 2015. Also, the deleveraging and restructuring of overindebted nonfinancial corporations has progressed slowly. It has been encouraged, however, by new central bank guidelines of December 2014, which allow for a gradual release of impairments and provisions by banks, along with progress in the restructuring of corporate exposures. On a less positive note, the Slovenian central bank came under public pressure in mid-February on allegations that it had overdramatized the situation of the banking sector in 2013 to make the case for the bail-in of junior bondholders and more-than-necessary capital injections in the rescued state-owned banks. In response to parliamentary hearings, the Slovenian central bank presented a report on the causes of the capital shortfalls and the related rescue measures in late March 2015. The bail-in is still being challenged before the constitutional court.

The Slovenian budget deficit is set to decline further in 2015 and 2016, in part due to cyclical developments, while according to the assessment of the European Commission, macroeconomic imbalances in the economy continue to require decisive policy action and close monitoring, but are no longer considered excessive.

Table 3

## Main economic indicators: Slovenia

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | –2.6 | –1.0 | 2.6 | –0.3 | 2.1 | 2.1 | 2.9 | 3.2 | 2.4 |
| Private consumption | –3.0 | –3.9 | 0.3 | –4.4 | –1.6 | 1.1 | 0.6 | 0.3 | –0.8 |
| Public consumption | –1.5 | –1.1 | –0.5 | –1.0 | –0.8 | –1.8 | –0.9 | –0.4 | 1.2 |
| Gross fixed capital formation | –8.9 | 1.9 | 4.8 | 1.0 | 7.4 | 5.0 | 7.3 | 8.0 | –0.9 |
| Exports of goods and services | 0.3 | 2.6 | 6.3 | 3.9 | 3.9 | 4.9 | 4.9 | 6.8 | 8.4 |
| Imports of goods and services | –3.9 | 1.4 | 4.1 | 2.5 | 4.6 | 3.5 | 4.3 | 5.3 | 3.3 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | –5.5 | –2.0 | 0.8 | –1.5 | 2.6 | 0.8 | 2.2 | 1.6 | –1.6 |
| Net exports of goods and services | 2.9 | 1.0 | 1.9 | 1.2 | –0.4 | 1.2 | 0.7 | 1.5 | 4.0 |
| Exports of goods and services | 0.2 | 1.9 | 4.7 | 2.8 | 2.9 | 3.7 | 3.6 | 5.1 | 6.3 |
| Imports of goods and services | 2.7 | –1.0 | –2.8 | –1.7 | –3.3 | –2.4 | –2.9 | –3.5 | –2.3 |
| | *Year-on-year change of the period average in %* | | | | | | | | |
| Unit labor costs in the whole economy (nominal, per hour) | 0.6 | 1.4 | –2.1 | 0.2 | 2.7 | –1.2 | –1.8 | –1.1 | –4.2 |
| Unit labor costs in manufacturing (nominal, per hour) | 4.7 | 2.8 | 0.3 | 2.5 | 4.1 | 1.2 | 0.3 | 1.3 | –1.8 |
| Labor productivity in manufacturing (real, per hour) | –1.8 | –2.1 | 3.5 | –2.9 | 0.4 | 1.9 | 2.3 | 4.6 | 5.1 |
| Labor costs in manufacturing (nominal, per hour) | 2.9 | 0.6 | 3.8 | –0.5 | 4.4 | 3.2 | 2.6 | 5.9 | 3.2 |
| Producer price index (PPI) in industry | 0.9 | 0.0 | –0.7 | –0.2 | –0.6 | –0.8 | –1.2 | –0.6 | –0.1 |
| Consumer price index (here: HICP) | 2.8 | 1.9 | 0.4 | 2.2 | 1.1 | 0.6 | 0.8 | 0.1 | 0.0 |
| | *Period average levels* | | | | | | | | |
| Unemployment rate (ILO definition, %, 15–64 years) | 9.0 | 10.3 | 9.9 | 9.5 | 9.8 | 11.0 | 9.5 | 9.4 | 9.7 |
| Employment rate (%, 15–64 years) | 64.1 | 63.3 | 63.9 | 64.5 | 63.2 | 62.5 | 64.5 | 64.6 | 64.0 |
| Key interest rate per annum (%) | 0.9 | 0.5 | 0.2 | 0.5 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 |
| | *Nominal year-on-year change in the period-end stock in %* | | | | | | | | |
| Broad money (including foreign currency deposits) | –0.7 | 0.2 | 7.8 | 0.6 | 0.2 | 1.4 | 4.4 | 6.4 | 7.8 |
| | *Contributions to the year-on-year change of broad money in percentage points* | | | | | | | | |
| Net foreign assets of the banking system | 10.6 | 23.5 | 45.3 | 18.8 | 19.7 | 29.1 | 27.4 | 31.1 | 25.5 |
| Domestic credit of the banking system | –5.9 | –16.4 | –33.0 | –18.3 | –13.8 | –23.1 | –19.7 | –19.2 | –19.2 |
| *of which: claims on the private sector* | –11.3 | –30.0 | –38.5 | –10.4 | –22.9 | –21.1 | –22.1 | –22.6 | –15.6 |
| *claims on households* | –0.1 | –2.3 | –2.2 | –1.2 | –1.5 | –1.3 | –1.2 | –1.0 | –0.7 |
| *claims on enterprises* | –11.2 | –27.7 | –36.3 | –9.2 | –21.4 | –19.8 | –20.8 | –21.6 | –14.9 |
| *claims on the public sector (net)* | 5.4 | 13.6 | 5.5 | –7.8 | 9.1 | –2.0 | 2.3 | 3.4 | –3.6 |
| Other assets (net) of the banking system | –2.4 | –7.6 | –4.3 | 0.1 | –5.7 | –4.7 | –3.3 | –5.5 | 1.5 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 44.4 | 45.2 | 45.0 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 48.1 | 59.7 | 49.8 | . . | . . | . . | . . | . . | . . |
| General government balance | –3.7 | –14.6 | –4.9 | . . | . . | . . | . . | . . | . . |
| Primary balance | –1.7 | –12.0 | –1.5 | . . | . . | . . | . . | . . | . . |
| Gross public debt | 53.7 | 70.3 | 80.9 | . . | . . | . . | . . | . . | . . |
| | *% of GDP* | | | | | | | | |
| Debt of nonfinancial corporations (nonconsolidated) | 94.1 | 83.4 | . . | . . | . . | . . | . . | . . | . . |
| Debt of households and NPISHs (nonconsolidated) | 29.9 | 28.9 | . . | . . | . . | . . | . . | . . | . . |
| | *% of GDP (based on EUR), period total* | | | | | | | | |
| Trade balance[1] | –0.1 | 2.1 | 3.5 | 2.7 | 0.5 | 3.5 | 3.2 | 3.4 | 3.9 |
| Services balance[1] | 4.2 | 4.9 | 4.6 | 5.7 | 3.7 | 3.7 | 4.5 | 5.9 | 4.1 |
| Primary income[1] | –0.8 | –0.7 | –1.6 | –2.1 | 0.0 | –1.3 | –1.2 | –2.1 | –1.9 |
| Secondary income[1] | –0.6 | –0.7 | –0.7 | –1.2 | 1.0 | –1.9 | –0.7 | –0.7 | 0.6 |
| Current account balance[1] | 2.7 | 5.6 | 5.8 | 5.1 | 5.2 | 3.9 | 5.8 | 6.4 | 6.7 |
| Capital account balance[1] | 0.1 | 0.3 | 0.2 | 0.1 | 0.8 | 0.0 | –0.4 | 0.1 | 1.1 |
| Foreign direct investment (net)[1] | 1.3 | 0.2 | 3.2 | 1.1 | 2.0 | 0.9 | 6.9 | 4.6 | 0.0 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt[1] | 113.4 | 111.2 | 124.1 | 113.1 | 111.2 | 121.8 | 125.0 | 124.0 | 124.1 |
| Gross official reserves (excluding gold)[1] | 1.6 | 1.6 | 2.0 | 1.7 | 1.6 | 2.0 | 2.1 | 2.0 | 2.0 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold)[1] | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.3 | 0.3 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 36,006 | 36,144 | 37,246 | 9,307 | 9,269 | 8,592 | 9,587 | 9,643 | 9,425 |

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

*[1] Data based on the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6).*

## 4 Bulgaria: bank failure leaves GDP growth unscathed but impacts on fiscal position

GDP growth remains surprisingly steady in second half of 2014, backed in particular by consumption

Despite deteriorating economic sentiment in the wake of the June bank runs, a five-month freeze of deposits with Corporate Commercial Bank (CCB), continued negative inflation rates and early parliamentary elections in October, Bulgarian GDP growth did not experience a backlash in the second half of 2014. While there was a rather pronounced deceleration in investment activity, both private and public consumption regained respectable momentum in this period. Private consumption benefited from the drop in oil prices, continued wage growth and stabilizing labor market conditions. Buoyant domestic demand seems to carry over into 2015 as economic confidence indicators have improved since the start of disbursement of insured CCB deposits in December. At the same time, import growth picked up considerably in the final quarter of 2014 and resulted in a negative growth contribution of net exports given that exports did not expand as dynamically. From a production-side perspective, GDP growth in the second half of 2014 was mainly supported by agriculture, industry, wholesale and retail trade as well as transport activities.

Consumer price deflation and subdued lending to private sector persist

Bulgaria has experienced declining consumer prices since August 2013 and recorded the strongest HICP decline in the EU in 2014. Despite the fact that electricity tariffs were raised by 10% as of October 2014, consumer price deflation has continued into 2015 on the back of shrinking transportation and communication costs (the annual HICP dropped by 1.7% in February).

Private sector credit growth dynamics have remained subdued, mirroring i.a. high real interest rates and investment uncertainty in 2014. Notably, the strong decline in lending observed since November 2014 was related to the fact that the CCB was excluded as a reporting agent from the Bulgarian central bank's monetary statistics data (right after the central bank had revoked the CCB's banking license).

Direct government bailout avoided, but covering funding gaps for Bulgarian bank deposit guarantees results in fiscal costs

The early elections in October brought a new center-right minority government that had to grant a five-and-a-half-year loan to the Bulgarian bank deposit guarantee fund, which was not sufficiently equipped to pay out all insured CCB deposits. Compared with the initial target of 1.8%, the general government deficit increased strongly from 0.9% in 2013 to 2.8% of GDP in 2014, and general government gross debt rose by almost 10 percentage points of GDP to 27.6% at end-2014. These unfavorable fiscal dynamics are not only due to bank rescue costs but also the result of underperforming tax revenues (exacerbated by deflationary trends) and stronger-than-expected expenditure. The adopted 2015 state budget act comprises consolidation measures (e.g. a 10% cut in wages of public employees and savings in healthcare costs) and targets a budget deficit of 3% of GDP, assuming a comparatively conservative GDP growth rate of 0.8% for 2015.

The 2015 budget deficit might also prove to be smaller as the newly elected parliament passed a public social insurance budget bill that introduces, from 2015, optionality in second-pillar pension participation. Thus, people born in 1960 or later will have to choose irreversibly whether their supplementary compulsory retirement insurance is to be handled by the National Social Security Institute (NSSI) in a first-pillar pay-as-you-go system or by a private universal pension fund in a second-pillar fully-funded system. Recent government proposals point to further amendments that reconsider the irreversibility of switching from the second to the first pillar.

Table 4

## Main economic indicators: Bulgaria

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | 0.5 | 1.1 | 1.7 | 1.2 | 3.0 | 1.1 | 2.1 | 1.9 | 1.6 |
| Private consumption | 3.9 | –2.3 | 2.0 | –2.2 | –1.8 | 3.5 | 0.3 | 1.4 | 2.9 |
| Public consumption | –1.0 | 2.8 | 3.8 | 3.9 | –0.4 | 3.5 | 2.6 | 2.9 | 5.8 |
| Gross fixed capital formation | 2.0 | –0.1 | 2.8 | 2.9 | 7.5 | 4.0 | 4.6 | 1.8 | 1.5 |
| Exports of goods and services | 0.8 | 9.2 | 2.2 | 10.9 | 11.2 | 0.5 | 2.9 | –1.2 | 7.5 |
| Imports of goods and services | 4.5 | 4.9 | 3.8 | 9.4 | 5.7 | 5.4 | 2.3 | –0.9 | 9.0 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | 2.8 | –1.6 | 2.8 | –0.6 | 0.1 | 4.7 | 1.7 | 2.4 | 2.8 |
| Net exports of goods and services | –2.3 | 2.6 | –1.1 | 1.8 | 2.7 | –3.7 | 0.3 | –0.3 | –1.2 |
| Exports of goods and services | 0.5 | 5.9 | 1.5 | 7.8 | 6.3 | 0.3 | 2.0 | –0.9 | 4.5 |
| Imports of goods and services | –2.8 | –3.3 | –2.6 | –6.0 | –3.5 | –4.0 | –1.6 | 0.6 | –5.7 |
| | *Year-on-year change of the period average in %* | | | | | | | | |
| Unit labor costs in the whole economy (nominal, per hour) | 4.5 | 7.6 | 0.1 | 5.8 | 2.7 | –0.3 | –1.3 | –0.3 | 2.5 |
| Unit labor costs in manufacturing (nominal, per hour) | 2.7 | 2.5 | 2.9 | 2.9 | –0.2 | 1.9 | 3.3 | 2.6 | 3.8 |
| Labor productivity in manufacturing (real, per hour) | 2.1 | 2.5 | 3.3 | 1.7 | 5.4 | 3.1 | 3.8 | 3.3 | 3.1 |
| Labor costs in manufacturing (nominal, per hour) | 4.8 | 5.1 | 6.3 | 4.7 | 5.1 | 5.1 | 7.2 | 6.0 | 7.0 |
| Producer price index (PPI) in industry | 4.4 | –1.5 | –1.2 | –3.1 | –3.6 | –2.8 | –1.2 | –0.4 | –0.4 |
| Consumer price index (here: HICP) | 2.4 | 0.4 | –1.6 | –0.7 | –1.0 | –1.8 | –1.6 | –1.2 | –1.8 |
| EUR per 1 BGN | 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 | 12.1 | 13.2 | 13.1 | 11.5 | 10.8 | 10.7 |
| Employment rate (%, 15–64 years) | 58.8 | 59.5 | 61.1 | 61.1 | 59.6 | 59.0 | 61.0 | 62.8 | 61.4 |
| 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 | 8.1 | 8.9 | 8.3 | 7.4 | 7.2 | 1.1 |
| | *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 | 3.3 | 4.9 | 6.0 | 3.4 | 7.5 | 9.9 |
| Domestic credit of the banking system | 10.0 | 5.9 | –4.9 | 4.0 | 3.2 | 1.9 | 5.5 | 0.9 | –7.5 |
| *of which: claims on the private sector* | 6.8 | 2.9 | –6.7 | 0.2 | 0.3 | 1.3 | 2.1 | 2.1 | –6.4 |
| *claims on households* | –0.5 | –0.4 | –0.5 | –0.2 | 0.0 | 0.1 | 0.1 | 0.0 | –0.5 |
| *claims on enterprises* | 7.4 | 3.3 | –6.2 | 0.4 | 0.3 | 1.2 | 2.1 | 2.0 | –5.9 |
| *claims on the public sector (net)* | 3.1 | 3.0 | 1.8 | 3.8 | 3.0 | 0.6 | 3.3 | –1.1 | –1.1 |
| Other assets (net) of the banking system | –4.6 | –0.6 | –0.6 | 0.7 | 0.8 | 0.5 | –1.4 | –1.2 | –1.3 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 34.5 | 37.4 | 36.4 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 35.2 | 38.3 | 39.2 | . . | . . | . . | . . | . . | . . |
| General government balance | –0.7 | –0.9 | –2.8 | . . | . . | . . | . . | . . | . . |
| Primary balance | 0.1 | –0.1 | –2.1 | . . | . . | . . | . . | . . | . . |
| Gross public debt | 18.0 | 18.3 | 27.6 | . . | . . | . . | . . | . . | . . |
| | *% of GDP* | | | | | | | | |
| Debt of nonfinancial corporations (nonconsolidated) | 113.8 | 115.7 | . . | . . | . . | . . | . . | . . | . . |
| Debt of households and NPISHs (nonconsolidated) | 26.1 | 26.0 | . . | . . | . . | . . | . . | . . | . . |
| | *% of GDP (based on EUR), period total* | | | | | | | | |
| Trade balance | –8.5 | –5.9 | –7.0 | –3.9 | –6.4 | –10.1 | –7.1 | –4.7 | –7.0 |
| Services balance | 5.5 | 5.5 | 6.1 | 13.5 | 1.6 | 1.7 | 5.7 | 13.8 | 1.8 |
| Income balance (factor services balance) | –3.3 | –4.4 | –2.9 | –5.8 | –3.1 | –3.6 | –3.1 | –3.4 | –1.6 |
| Current transfers | 5.0 | 5.8 | 3.8 | 4.6 | 3.2 | 8.5 | 3.6 | 2.3 | 2.1 |
| Current account balance | –1.1 | 1.0 | 0.0 | 8.4 | –4.6 | –3.5 | –0.9 | 8.1 | –4.6 |
| Capital account balance | 1.3 | 1.1 | 2.4 | 1.5 | 1.4 | 1.5 | 2.0 | 1.7 | 4.0 |
| Foreign direct investment (net) | 2.1 | 3.1 | 2.7 | 4.0 | –0.4 | 3.5 | 0.4 | 1.2 | 5.6 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt | 92.1 | 90.0 | 94.7 | 91.3 | 90.0 | 90.7 | 90.4 | 92.5 | 94.7 |
| Gross official reserves (excluding gold) | 34.0 | 32.4 | 36.4 | 33.5 | 32.4 | 31.1 | 31.7 | 34.2 | 36.4 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold) | 6.0 | 5.7 | 6.3 | 5.9 | 5.7 | 5.4 | 5.5 | 6.0 | 6.3 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 40,927 | 41,048 | 42,011 | 11,044 | 11,446 | 8,526 | 10,205 | 11,677 | 11,602 |

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

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

## 5 Croatia: recession stretched into sixth year

Another year of GDP contraction but final quarter of 2014 sees marginally positive growth at last

In the third quarter of 2014, real GDP continued to contract in Croatia, but growth turned slightly positive in the fourth quarter. Overall, GDP fell by 0.4% in 2014, on the back of a strong contraction of domestic demand due to a further drop in investment as well as the ongoing decline in private and public consumption. The only positive contribution to growth came from net exports. On the production side, the biggest contractions were registered in the construction and agricultural sectors. However, value added in the manufacturing sector increased for the first time since 2008, growing 3.3% on a year-to-year basis. To stimulate private consumption and support households' deleveraging, the government increased the income tax allowance from HRK 2,200 to HRK 2,600 as of January 2015. Public debt increased further in 2014, amounting to 81.4% of GDP at the end of 2014, while the fiscal deficit decreased marginally to 5% of GDP.

Strong export performance offset by higher income account deficit

The current account balance stayed in moderate surplus in 2014. The main positive contribution continued to come from tourism, reflected in services exports, which increased by 3.5% in 2014 against 2013. Goods exports went up by 9.3% (especially apparel and electricity exports) while imports grew by only 3.7% due to weak domestic demand. The strong performance of goods and services exports was offset by a worsening of the primary income deficit on the back of higher profits of foreign-owned companies and – to a lesser extent – by a deterioration of the secondary income surplus as payments from the EU exceeded EU fund utilization. In 2014 net FDI increased to 2.7% of GDP while net portfolio flows turned negative with a net outflow of 1.6% of GDP. Gross external debt rose further to 108.4% of GDP. In line with the usual seasonal patterns, in January and February 2015 the Croatian central bank intervened twice in the foreign exchange market by selling about EUR 500 million in total to support the Croatian kuna. Market access remains at favorable terms: On March 4, 2015, ten-year eurobonds worth EUR 1.5 billion were sold at a yield of 3.3%.

Temporary freeze of exchange rate for repayments of Swiss franc housing loans

Inflation growth continued to be subdued in the second half of 2014 and turned negative with a year-on-year inflation rate of –0.1% by December, mainly on the back of decreasing food and energy prices but also due to weak domestic demand. By February 2015, deflation accelerated to 0.4% year on year. As in the two previous years, credit growth was negative in 2014, with a 2.8% contraction of credit to the private sector at the end of the year. The share of nonperforming loans in total loans stayed flat during the second half of 2014 and amounted to 12.2% by year-end (compared with 11.6% at end-2013). Return on assets recovered somewhat and amounted to 0.6% for 2014 as a whole. Following the Swiss central bank's decision to abandon the Swiss franc's minimum exchange rate to the euro in January 2015 and the subsequent appreciation of the Swiss franc vis-à-vis the Croatian kuna, the Consumer Credit Act was adapted to freeze the loan repayment exchange rate for housing loans indexed to or denominated in Swiss franc at HRK 6.39 per Swiss franc for one year. The costs resulting from exchange rate differences will have to be born completely by the commercial banks.

Table 5

## Main economic indicators: Croatia

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | –2.2 | –0.9 | –0.4 | –0.5 | –1.1 | –0.6 | –0.8 | –0.5 | 0.3 |
| Private consumption | –3.0 | –1.2 | –0.7 | –0.3 | –1.7 | –0.5 | –0.5 | –1.1 | –0.6 |
| Public consumption | –1.0 | 0.5 | –1.9 | –0.8 | 1.4 | –2.2 | –3.4 | –1.4 | –0.5 |
| Gross fixed capital formation | –3.3 | –1.0 | –4.0 | 0.3 | –3.1 | –3.6 | –5.2 | –3.6 | –3.7 |
| Exports of goods and services | –0.1 | 3.0 | 6.3 | 3.7 | 7.4 | 11.4 | 7.9 | 4.1 | 4.5 |
| Imports of goods and services | –3.0 | 3.2 | 3.0 | 5.3 | 6.0 | 7.6 | 2.2 | 3.2 | –0.4 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | –3.3 | –0.9 | –1.8 | –0.8 | –1.3 | –1.2 | –2.8 | –1.5 | –1.7 |
| Net exports of goods and services | 1.2 | 0.0 | 1.4 | 0.1 | 0.2 | 0.4 | 2.0 | 1.2 | 1.9 |
| Exports of goods and services | –0.1 | 1.3 | 2.7 | 2.2 | 2.7 | 3.6 | 3.0 | 2.5 | 1.8 |
| Imports of goods and services | 1.2 | –1.3 | –1.3 | –2.1 | –2.5 | –3.1 | –1.0 | –1.3 | 0.2 |
| | *Year-on-year change of the period average in %* | | | | | | | | |
| Unit labor costs in the whole economy (nominal, per hour) | –1.2 | –0.5 | –2.3 | –2.3 | 0.0 | –1.4 | –1.9 | –2.3 | –3.9 |
| Unit wage costs in manufacturing (nominal, per hour) | 2.8 | –1.4 | –1.6 | 2.0 | –1.0 | –2.1 | –0.8 | –1.0 | –2.7 |
| Labor productivity in manufacturing (real, per hour) | –1.2 | 3.1 | 2.9 | 0.7 | 1.4 | 3.9 | 1.1 | 1.7 | 4.7 |
| Gross wages in manufacturing (nominal, per hour) | 1.6 | 1.7 | 1.1 | 2.6 | 0.3 | 1.8 | 0.2 | 0.3 | 2.0 |
| Producer price index (PPI) in industry | 7.0 | 0.5 | –2.7 | –0.6 | –2.7 | –2.7 | –2.7 | –2.9 | –2.6 |
| Consumer price index (here: CPI) | 3.3 | 2.3 | 0.2 | 2.2 | 0.6 | 0.1 | 0.3 | 0.3 | 0.2 |
| EUR per 1 HRK, + = HRK appreciation | –1.1 | –0.8 | –0.7 | –1.0 | –1.3 | –0.9 | –0.6 | –1.0 | –0.5 |
| | *Period average levels* | | | | | | | | |
| Unemployment rate (ILO definition, %, 15–64 years) | 16.3 | 17.5 | 17.5 | 17.0 | 17.9 | 18.8 | 16.7 | 15.8 | 18.5 |
| Employment rate (%, 15–64 years) | 53.5 | 52.6 | 54.6 | 53.7 | 52.7 | 52.7 | 54.6 | 56.9 | 54.0 |
| 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 | 7.5 | 7.6 | 7.7 | 7.6 | 7.6 | 7.7 |
| | *Nominal year-on-year change in the period-end stock in %* | | | | | | | | |
| Broad money (including foreign currency deposits) | 3.6 | 3.5 | 2.8 | 5.5 | 3.5 | 2.7 | 1.6 | 2.4 | 2.8 |
| | *Contributions to the year-on-year change of broad money in percentage points* | | | | | | | | |
| Net foreign assets of the banking system | 2.2 | 11.9 | 10.2 | 5.3 | 5.5 | 4.3 | 5.8 | 7.7 | 4.6 |
| Domestic credit of the banking system | 9.4 | –3.0 | –2.2 | 1.2 | –2.0 | –2.6 | –4.1 | –5.1 | –0.2 |
| *of which: claims on the private sector* | –0.2 | –6.1 | –4.0 | –1.7 | –1.4 | –2.4 | –3.2 | –3.9 | –2.4 |
| *claims on households* | –0.2 | –1.6 | –1.2 | –0.2 | –0.9 | –0.7 | –0.3 | –0.7 | –0.3 |
| *claims on enterprises* | 0.0 | –4.5 | –2.7 | –1.5 | –0.6 | –1.7 | –2.9 | –3.2 | –2.1 |
| *claims on the public sector (net)* | 9.6 | 3.0 | 1.8 | 2.9 | –0.5 | –0.3 | –1.0 | –1.2 | 2.2 |
| Other assets (net) of the banking system | –3.2 | –1.7 | –1.7 | –1.0 | 0.0 | 1.0 | –0.1 | –0.1 | –1.6 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 41.3 | 41.8 | 43.3 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 46.9 | 47.0 | 48.3 | . . | . . | . . | . . | . . | . . |
| General government balance | –5.6 | –5.2 | –5.0 | . . | . . | . . | . . | . . | . . |
| Primary balance | –2.4 | –1.8 | –1.1 | . . | . . | . . | . . | . . | . . |
| Gross public debt | 64.5 | 75.7 | 81.4 | . . | . . | . . | . . | . . | . . |
| | *% of GDP* | | | | | | | | |
| Debt of nonfinancial corporations (nonconsolidated) | 88.1 | 86.3 | . . | . . | . . | . . | . . | . . | . . |
| Debt of households and NPISHs (nonconsolidated) | 41.0 | 40.2 | . . | . . | . . | . . | . . | . . | . . |
| | *% of GDP (based on EUR), period total* | | | | | | | | |
| Trade balance[1] | –14.3 | –15.1 | –14.7 | –13.7 | –12.9 | –15.7 | –17.2 | –14.0 | –12.0 |
| Services balance[1] | 14.8 | 15.6 | 16.8 | 37.9 | 4.2 | 2.1 | 16.4 | 39.6 | 5.8 |
| Primary income[1] | –3.3 | –2.1 | –3.2 | –2.2 | –0.8 | –3.6 | –4.2 | –3.9 | –1.2 |
| Secondary income[1] | 2.6 | 2.5 | 1.8 | 1.9 | 1.9 | 1.8 | 1.6 | 2.0 | 1.9 |
| Current account balance[1] | –0.1 | 0.8 | 0.7 | 23.9 | –7.7 | –15.4 | –3.5 | 23.7 | –5.6 |
| Capital account balance[1] | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.0 | 0.2 | 0.1 | 0.4 |
| Foreign direct investment (net)[1] | 2.7 | 2.0 | 2.7 | –0.3 | 2.5 | 2.7 | 3.3 | 2.5 | 2.4 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt[1] | 103.1 | 105.5 | 108.4 | 103.5 | 105.5 | 107.9 | 107.4 | 108.0 | 108.4 |
| Gross official reserves (excluding gold)[1] | 25.6 | 29.6 | 29.4 | 26.7 | 29.6 | 27.9 | 28.6 | 28.1 | 29.4 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold)[1] | 7.5 | 8.4 | 8.0 | 7.7 | 8.4 | 7.7 | 7.8 | 7.6 | 8.0 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 43,944 | 43,566 | 43,088 | 11,844 | 10,735 | 9,819 | 10,788 | 11,731 | 10,750 |

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

[1] *Data based on the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6).*

## 6 Czech Republic: economic expansion is under way, led by domestic consumption

GDP growth driven by higher private and public consumption

The Czech economy continued the expansion that had started in the final quarter of 2013, although at a somewhat slower pace. After growing by 2.5% in the third quarter of 2014, GDP only augmented by around 1.2% in the final quarter of 2014. This slowdown was mainly due to lower-than-expected additions to inventories, slower investment growth and a slight moderation in export dynamics. Foreign demand has nevertheless remained an important backbone of growth in the last two quarters. Other GDP components grew faster than expected, led by private and public consumption. Recent high frequency indicators corroborate these developments, with increases in industrial production, construction output and retail sales providing further evidence for the robustness of the current economic expansion.

Fiscal policy measures and minimum wage increases support private consumption

The government's plan to promote domestic demand by strengthening social welfare schemes, wage raises in the public sector and higher minimum wages as well as improved sentiment led to sustained increases in private consumption, which went up by around 2% in the fourth quarter of 2014, after reaching 2.2% in the third quarter. Real exports experienced significant though slightly decelerating growth during the course of 2014, rising by 6.7% in the final quarter of 2014. Imports also expanded markedly, reaching around 7.4% in the fourth quarter.

Czech central bank committed to fight deflationary tendencies

Domestic inflation remained at very low levels, although inflation expectations point toward increases in the medium run. HICP inflation decreased to –0.1% in February 2015, down from 0.5% in the fourth quarter of 2014. The current low level of inflation is mainly attributable to the sharp drop in oil prices, which acts as a positive supply shock to the Czech economy. In addition, falling unprocessed food prices also exhibited deflationary pressure. With that, inflation remained at levels well below the central bank's tolerance bounds (2% ±1%). As a consequence, the Czech central bank again stated that it would use the exchange rate as a monetary policy instrument until the end of 2016. In addition, it also communicated that it would move the exchange rate cap to lower levels in case of further deflationary pressure that might harm the positive trend in domestic demand.

The Czech current account balance displayed a mild surplus in 2014, thus moderately improving from 2013. This was essentially due to an improved trade balance.

Gradually improving labor markets should further spur domestic consumption

On the back of the stronger overall performance of the Czech economy, labor markets improved significantly in 2014. The unemployment rate fell to 5.8% in the fourth quarter, from 6.8% a year earlier. The number of vacancies almost recovered to pre-crisis levels. Employment also increased, approaching 70% in the final quarter of 2014. In addition, wages increased by around 3% (year on year) in the fourth quarter.

Banking sector remained healthy, although credit growth stayed muted

The Czech banking sector remained healthy, featuring strong balance sheets and high asset quality. Total assets increased slightly, reaching around CZK 5,476 billion in February, with loans to residents being the predominant asset item. The share of nonperforming loans in the total volume of loans has been slightly declining since 2010, reaching around 6.5% in February 2015, after having peaked at 9% in December 2010. Credit growth remained muted, rising only moderately over recent years.

Table 6

## Main economic indicators: Czech Republic

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | –0.8 | –0.7 | 2.0 | 0.3 | 0.8 | 2.3 | 2.1 | 2.5 | 1.2 |
| Private consumption | –1.8 | 0.4 | 1.7 | 1.5 | 1.1 | 0.9 | 1.6 | 2.2 | 2.0 |
| Public consumption | –1.0 | 2.3 | 2.3 | 3.4 | 3.4 | 0.8 | 3.0 | 0.5 | 4.3 |
| Gross fixed capital formation | –2.9 | –4.4 | 4.5 | –2.4 | –0.9 | 3.0 | 5.1 | 6.4 | 3.4 |
| Exports of goods and services | 4.1 | 0.3 | 8.8 | 2.7 | 4.5 | 11.6 | 8.7 | 8.2 | 6.7 |
| Imports of goods and services | 2.4 | 0.3 | 9.5 | 3.9 | 5.0 | 11.1 | 11.7 | 8.4 | 7.4 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | –2.1 | –0.7 | 2.0 | 1.0 | 1.1 | 1.0 | 3.5 | 2.3 | 1.4 |
| Net exports of goods and services | 1.3 | 0.0 | –0.1 | –0.7 | –0.2 | 1.3 | –1.4 | 0.2 | –0.2 |
| Exports of goods and services | 2.9 | 0.2 | 6.8 | 2.0 | 3.4 | 9.2 | 6.7 | 6.2 | 5.2 |
| Imports of goods and services | –1.7 | –0.2 | –6.8 | –2.7 | –3.6 | –7.9 | –8.1 | –6.0 | –5.4 |
| | *Year-on-year change of the period average in %* | | | | | | | | |
| Unit labor costs in the whole economy (nominal, per hour) | 2.6 | 0.5 | 1.4 | 1.1 | –2.1 | 1.7 | 1.3 | 0.1 | 2.5 |
| Unit labor costs in manufacturing (nominal, per hour) | 2.7 | 0.7 | –2.1 | –1.3 | –5.4 | –2.0 | –5.6 | 0.2 | –1.1 |
| Labor productivity in manufacturing (real, per hour) | –0.2 | 2.3 | 5.2 | 2.9 | 7.4 | 6.5 | 7.5 | 2.7 | 4.4 |
| Labor costs in manufacturing (nominal, per hour) | 2.6 | 2.9 | 3.0 | 1.6 | 1.7 | 4.4 | 1.5 | 2.9 | 3.3 |
| Producer price index (PPI) in industry | 2.4 | 0.7 | 1.0 | 0.3 | 1.4 | 1.2 | 1.3 | 1.8 | –0.2 |
| Consumer price index (here: HICP) | 3.5 | 1.4 | 0.4 | 1.2 | 1.1 | 0.3 | 0.2 | 0.7 | 0.5 |
| EUR per 1 CZK, + = CZK appreciation | –2.2 | –3.2 | –5.6 | –3.0 | –5.7 | –6.8 | –5.9 | –6.4 | –3.4 |
| | *Period average levels* | | | | | | | | |
| Unemployment rate (ILO definition, %, 15–64 years) | 7.1 | 7.0 | 6.2 | 7.0 | 6.8 | 6.9 | 6.1 | 6.0 | 5.8 |
| Employment rate (%, 15–64 years) | 66.6 | 67.7 | 69.0 | 68.0 | 68.3 | 68.1 | 68.7 | 69.3 | 69.8 |
| 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 | 25.9 | 26.7 | 27.4 | 27.4 | 27.6 | 27.6 |
| | *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 | 5.8 | 5.8 | 5.0 | 4.8 | 5.9 |
| | *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 | 4.2 | 5.6 | 7.5 | 5.5 | 4.6 | 0.1 |
| Domestic credit of the banking system | 9.4 | 5.2 | 12.1 | 3.1 | 3.5 | 1.5 | 4.1 | 4.9 | 8.1 |
| *of which: claims on the private sector* | 6.1 | 4.8 | 5.8 | 2.1 | 2.8 | 1.9 | 2.5 | 2.3 | 2.9 |
| *claims on households* | 3.8 | 3.1 | 2.5 | 1.7 | 1.4 | 1.5 | 1.4 | 1.4 | 1.0 |
| *claims on enterprises* | 2.2 | 1.6 | 3.3 | 0.4 | 1.3 | 0.3 | 1.1 | 0.9 | 1.9 |
| *claims on the public sector (net)* | 3.3 | 0.4 | 6.3 | 0.9 | 0.8 | –0.4 | 1.6 | 2.5 | 5.2 |
| Other assets (net) of the banking system | –6.5 | –5.6 | –5.7 | –1.5 | –3.3 | –3.2 | –4.6 | –4.6 | –2.3 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 39.9 | 40.8 | 40.1 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 43.8 | 41.9 | 42.0 | . . | . . | . . | . . | . . | . . |
| General government balance | –3.9 | –1.2 | –2.0 | . . | . . | . . | . . | . . | . . |
| Primary balance | –2.5 | 0.2 | –0.6 | . . | . . | . . | . . | . . | . . |
| Gross public debt | 44.6 | 45.0 | 42.6 | . . | . . | . . | . . | . . | . . |
| | *% of GDP* | | | | | | | | |
| Debt of nonfinancial corporations (nonconsolidated) | 45.3 | 44.8 | . . | . . | . . | . . | . . | . . | . . |
| Debt of households and NPISHs (nonconsolidated) | 30.7 | 29.9 | . . | . . | . . | . . | . . | . . | . . |
| | *% of GDP (based on EUR), period total* | | | | | | | | |
| Trade balance[1] | 3.1 | 4.1 | 5.6 | 3.1 | 2.4 | 7.8 | 6.4 | 4.8 | 3.7 |
| Services balance[1] | 1.9 | 1.7 | 1.3 | 1.4 | 1.4 | 2.1 | 1.4 | 1.1 | 0.7 |
| Primary income[1] | –5.9 | –6.0 | –6.1 | –6.9 | –5.8 | 0.1 | –11.7 | –8.0 | –4.3 |
| Secondary income[1] | –0.7 | –0.3 | –0.2 | –0.3 | 1.4 | –1.5 | 1.2 | –0.9 | 0.3 |
| Current account balance[1] | –1.6 | –0.5 | 0.6 | –2.8 | –0.5 | 8.5 | –2.7 | –3.1 | 0.4 |
| Capital account balance[1] | 1.3 | 2.0 | 0.8 | 5.4 | 1.9 | 2.2 | 0.1 | 0.2 | 0.7 |
| Foreign direct investment (net)[1] | 3.0 | –0.2 | 3.1 | –0.2 | –0.2 | 3.9 | 5.5 | 2.7 | 0.6 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt[1] | 60.2 | 63.4 | 66.5 | 61.0 | 63.4 | 62.7 | 64.6 | 65.9 | 66.5 |
| Gross official reserves (excluding gold)[1] | 20.8 | 25.8 | 28.8 | 21.3 | 25.8 | 26.5 | 27.6 | 27.9 | 28.8 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold)[1] | 3.5 | 4.4 | 4.5 | 3.6 | 4.4 | 4.4 | 4.5 | 4.5 | 4.5 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 160,932 | 157,170 | 154,913 | 40,169 | 40,662 | 35,974 | 38,920 | 39,556 | 40,464 |

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

[1] *Data based on the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6).*

## 7 Hungary: GDP surpasses pre-crisis level in final quarter of 2014

Strong GDP growth set to decelerate

Hungarian GDP grew by 3.6% in 2014, with output surpassing pre-crisis levels by the fourth quarter. In the two final quarters, economic expansion was clearly driven by domestic demand. Investments benefited from the central bank's Funding for Growth Scheme (FGS) and the accelerated absorption of EU funds. Yet investment growth slowed down considerably in the fourth quarter, in particular in manufacturing and the public sector. Total consumption growth rose in the course of 2014, supported by rapid employment and real wage growth (not last due to decreasing prices), decreasing precautionary savings and public sector wage increases. Notwithstanding strong export growth, rapidly growing imports led to a negative growth contribution of net real exports. High frequency data for early 2015 suggest that strong economic activity continued into 2015.

Thaw after blow to financial sector?

The first quarter of 2015 saw the start of the compensation of borrowers for abusive terms in consumer loan contracts; mandated on-demand conversion of foreign currency consumer mortgage loans into forint loans at the (below market) exchange rate of November 7, 2014; and the entry into force of the law on "fair banking," stipulating i.a. conditions for changes in interest rates and fees in consumer credit contracts. Compensation payments and forced conversion caused not only heavy one-off losses to the banking sector but also a reduction in future interest revenues (through the reduction in household debt and in contracted interest rates). Also, in order to safeguard financial stability once the credit cycle turns, the central bank introduced new payment-to-income and loan-to-value ratios with effect from 2015 (penalizing foreign currency loans). At the same time, upon agreeing to purchase a 15% stake in Erste Bank Hungary (with the EBRD buying another 15%), the government stroke reconciliatory tones toward the banking sector. In an agreement signed with the EBRD, it promised to promote a stable and predictable operational framework, i.a. by gradually reducing the banking tax from 2016, promoting the transparent and market-based cleansing of banks' credit portfolios, introducing new regulations on private bankruptcy and retroactive credit termination rights of clients only in consultation with the Hungarian Banking Association, refraining from implementing new measures that may have a negative impact on banks' profitability, and ensuring fair competition and equal treatment of all financial institutions. The government also committed to divest its recently acquired majority stakes in local banks within three years. However, concerns about the viability of the agreement arose in April as parliament passed legislation, against the objection by the Hungarian Banking Association, stipulating that banks cover substantial costs from the failure of several brokerage firms, and as the government and the central bank aired ideas that the envisaged bank tax reduction be made conditional on increased lending activity by banks.

Monetary policy remains accommodative

The Hungarian central bank also decided to expand and extend its FGS scheme until end-2016. Under an additional FGS+ scheme launched in mid-March 2015 with similar conditions, it also temporarily assumed part of banks' credit losses to enable the participation of less creditworthy SMEs in the scheme. Reacting to negative inflation rates and very subdued inflation pressures, the Hungarian central bank resumed rate cutting in late March 2015 by slashing the policy rate by 15 basis points and hinting at further decreases in the coming months. Meanwhile, fiscal policy remains on track as the 2014 deficit came in at 2.6% of GDP, as compared to the 2.9% target. The government targets a deficit of 2.4% for 2015.

Table 7

## Main economic indicators: Hungary

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | –1.5 | 1.5 | 3.6 | 2.2 | 3.2 | 3.8 | 4.1 | 3.3 | 3.4 |
| Private consumption | –1.9 | –0.1 | 1.6 | –0.6 | 0.6 | 1.2 | 2.4 | 0.9 | 1.8 |
| Public consumption | –1.3 | 3.2 | 2.4 | 2.2 | 2.1 | 1.7 | 1.2 | 2.7 | 4.2 |
| Gross fixed capital formation | –4.2 | 5.2 | 11.7 | 8.1 | 11.4 | 19.8 | 18.8 | 13.2 | 1.9 |
| Exports of goods and services | –1.5 | 5.9 | 8.7 | 7.6 | 10.3 | 8.2 | 9.4 | 7.9 | 9.4 |
| Imports of goods and services | –3.3 | 5.9 | 10.0 | 6.6 | 9.6 | 9.0 | 10.7 | 11.0 | 9.4 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | –2.8 | 1.1 | 4.0 | 0.8 | 2.2 | 3.8 | 4.5 | 5.1 | 2.8 |
| Net exports of goods and services | 1.4 | 0.4 | –0.4 | 1.4 | 1.0 | 0.0 | –0.4 | –1.7 | 0.6 |
| Exports of goods and services | –1.3 | 5.1 | 7.8 | 6.5 | 8.5 | 7.6 | 8.4 | 7.0 | 8.1 |
| Imports of goods and services | 2.6 | –4.7 | –8.1 | –5.2 | –7.5 | –7.6 | –8.8 | –8.6 | –7.5 |
| | *Year-on-year change of the period average in %* | | | | | | | | |
| Unit labor costs in the whole economy (nominal, per hour) | 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 | 9.9 | 9.2 | 8.3 | 8.1 | 7.4 | 7.2 |
| Employment rate (%, 15–64 years) | 56.7 | 58.1 | 61.8 | 58.9 | 59.4 | 60.6 | 61.3 | 62.6 | 62.6 |
| Key interest rate per annum (%) | 6.8 | 4.4 | 2.4 | 4.0 | 3.3 | 2.8 | 2.5 | 2.1 | 2.1 |
| HUF per 1 EUR | 289.3 | 296.9 | 308.7 | 298.0 | 297.6 | 308.1 | 305.9 | 312.3 | 308.5 |
| | *Nominal year-on-year change in the period-end stock in %* | | | | | | | | |
| Broad money (including foreign currency deposits) | –3.3 | 5.5 | 5.8 | 3.3 | 5.5 | 1.0 | 3.7 | 6.1 | 5.8 |
| | *Contributions to the year-on-year change of broad money in percentage points* | | | | | | | | |
| Net foreign assets of the banking system | 23.2 | 11.7 | 14.6 | 1.0 | 6.6 | 4.8 | 8.3 | 16.0 | 7.6 |
| Domestic credit of the banking system | –15.7 | –11.6 | 0.7 | 5.8 | 0.2 | –4.1 | –2.5 | –7.5 | 0.4 |
| *of which: claims on the private sector* | –15.1 | –18.1 | –4.8 | –2.9 | –4.6 | –4.8 | –2.1 | –3.1 | –0.3 |
| *claims on households* | –8.2 | –9.6 | –3.0 | –1.6 | –2.3 | –2.9 | –1.5 | –1.5 | –0.6 |
| *claims on enterprises* | –6.8 | –8.5 | –1.9 | –1.3 | –2.3 | –1.9 | –0.7 | –1.8 | 0.3 |
| *claims on the public sector (net)* | –0.6 | 6.4 | 5.5 | 8.7 | 4.8 | 0.7 | –0.4 | –4.3 | 0.7 |
| Other assets (net) of the banking system | –5.2 | 2.0 | –3.6 | –3.6 | –1.3 | 0.3 | –2.1 | –2.4 | –2.2 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 46.4 | 47.3 | 47.6 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 48.7 | 49.8 | 50.1 | . . | . . | . . | . . | . . | . . |
| General government balance | –2.3 | –2.5 | –2.6 | . . | . . | . . | . . | . . | . . |
| Primary balance | 2.3 | 2.1 | 1.6 | . . | . . | . . | . . | . . | . . |
| Gross public debt | 78.5 | 77.3 | 76.9 | . . | . . | . . | . . | . . | . . |
| | *% of GDP* | | | | | | | | |
| Debt of nonfinancial corporations (nonconsolidated) | 119.0 | 112.2 | . . | . . | . . | . . | . . | . . | . . |
| Debt of households and NPISHs (nonconsolidated) | 31.0 | 28.0 | . . | . . | . . | . . | . . | . . | . . |
| | *% of GDP (based on EUR), period total* | | | | | | | | |
| Trade balance[1] | 3.0 | 3.5 | 2.6 | 4.4 | 2.7 | 4.4 | 0.7 | 2.8 | 2.8 |
| Services balance[1] | 3.9 | 4.0 | 4.8 | 5.3 | 2.4 | 4.2 | 5.1 | 6.1 | 3.9 |
| Primary income[1] | –4.2 | –2.9 | –2.6 | –2.9 | –2.6 | –2.1 | –3.1 | –2.8 | –2.4 |
| Secondary income[1] | –0.8 | –0.5 | –0.7 | –0.6 | 0.3 | –1.1 | –0.8 | 0.1 | –1.1 |
| Current account balance[1] | 1.8 | 4.0 | 4.1 | 6.2 | 2.7 | 5.4 | 1.8 | 6.3 | 3.2 |
| Capital account balance[1] | 2.6 | 3.6 | 4.1 | 2.4 | 5.7 | 2.2 | 3.0 | 3.8 | 7.1 |
| Foreign direct investment (net)[1] | 2.1 | 0.9 | 0.5 | –2.9 | 7.5 | 2.0 | –7.6 | 2.1 | 5.1 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt[1] | 129.0 | 118.9 | 114.6 | 119.3 | 118.9 | 119.0 | 119.8 | 117.3 | 114.6 |
| Gross official reserves (excluding gold)[1] | 34.1 | 33.5 | 33.4 | 30.5 | 33.5 | 35.7 | 35.3 | 34.7 | 33.4 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold)[1] | 5.1 | 4.9 | 4.8 | 4.6 | 4.9 | 5.2 | 5.1 | 5.0 | 4.8 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 98,865 | 100,531 | 103,308 | 25,792 | 27,337 | 22,931 | 25,780 | 26,533 | 28,064 |

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

[1] *Data based on the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6).*

## 8 Poland: rate cuts to prevent inflation expectations from becoming unanchored

Balanced economic growth coupled with surplus in the combined current and capital account

Polish GDP growth reached 3.3% in 2014, with exports and domestic demand contributing 2.6 and 4.6 percentage points and an ensuing negative growth contribution of net exports of 1.3 percentage points. The surplus in the goods and services balance declined to 1.8% of GDP, while the current account deficit stood nearly unchanged at 1.4% as the deficit in the primary income balance receded and the capital account surplus was stable at 2.4%.

Quarter-on-quarter growth remained rather stable at 0.8% and 0.7% in the two final quarters. GDP growth continued to be well balanced, with domestic demand benefiting from strong private consumption, larger inventory build-up and a sizeable contribution of gross fixed investment. In the second half of 2014 deflation emerged, compensating for lower nominal growth of average pensions and hourly wages, while employment growth, sufficiently strong to lower the unemployment rate despite a further increase in the labor force, lifted the real wage sum. This supported private consumption growth, while consumer loan growth decelerated. At the same time, housing investment markedly increased, with housing loans posting stable growth (in exchange rate-adjusted terms). Business investment benefited from rising export growth and robust consumption demand. The profitability and liquidity indicators of the corporate sector improved further, and corporate loan growth accelerated. Public investment benefited from the enhanced availability of EU funds. While annual growth of industrial production and construction output was markedly weaker in the second half of 2014 than in the first, it strongly accelerated in early 2015.

Negative annual headline inflation, but core inflation still positive

In the second half of 2014, weak manufacturing production growth coupled with higher labor input implied modest annual productivity gains that did not match strong, albeit declining hourly labor cost increases. With the Polish złoty being only slightly weaker against the euro (year on year) in that period, the ULC rise reversed advances in price competitiveness vis-à-vis the euro area achieved in 2013. Moreover, during the first quarter of 2015, the Polish złoty appreciated by about 4.5% against the euro. In February, annual headline inflation was negative (–1.3% HICP, –1.6% national CPI), while core inflation stood at 0.2% (HICP) and 0.4% (CPI), given substantial energy and food price decreases. Having been on hold since July 2013, in early October 2014 the Polish Monetary Policy Council, pursuing an inflation target of 2.5% (CPI), cut the reference rate from 2.5% to 2.0% while leaving the deposit rate unchanged at 1%. This was followed by 50-basis point cuts of both rates in early March 2015.

Gradual fiscal consolidation

In early February, European Commission staff experts expected Poland's deficit (ESA 2010) to decline from 3.2% in 2014 to 2.9% in 2015, and the structural balance to improve to –2.7% in 2015. This compares with Council targets recommended in 2013 for a sustainable correction of the excessive deficit by end-2015 of 3.9% for the 2014 deficit and of 2.8% for the 2015 deficit (along with an aggregate structural improvement by +2.2 percentage points for both years). Discretionary measures for fiscal consolidation in 2014 and 2015 focus mainly on spending: the early retirement scheme was abolished, the statutory retirement age was raised, the role of the capital-funded pillar within the pension system was reduced (implying lower debt servicing costs, but also higher social contributions to the pay-as-you-go pillar) and public wages were partially frozen. The European Commission expects Poland's gross debt to reach 49.9% of GDP at the end of 2015 (2014: 50.1%).

Table 8

## Main economic indicators: Poland

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | 1.8 | 1.7 | 3.3 | 2.6 | 2.4 | 3.7 | 3.3 | 3.4 | 2.9 |
| Private consumption | 0.9 | 1.0 | 3.0 | 1.2 | 2.2 | 2.4 | 2.9 | 3.5 | 3.2 |
| Public consumption | 0.2 | 2.1 | 2.8 | 3.3 | 2.2 | 0.0 | 3.9 | 3.7 | 3.4 |
| Gross fixed capital formation | –1.5 | 0.9 | 9.5 | 2.0 | 2.5 | 11.7 | 8.8 | 10.1 | 8.6 |
| Exports of goods and services | 4.3 | 5.0 | 5.6 | 8.2 | 6.8 | 7.3 | 4.1 | 4.0 | 7.2 |
| Imports of goods and services | –0.6 | 1.8 | 8.7 | 5.0 | 4.6 | 6.2 | 9.5 | 7.8 | 11.2 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | –0.4 | 0.2 | 4.6 | 1.1 | 1.5 | 3.1 | 5.5 | 5.1 | 4.4 |
| Net exports of goods and services | 2.1 | 1.4 | –1.3 | 1.5 | 0.9 | 0.6 | –2.3 | –1.7 | –1.6 |
| Exports of goods and services | 1.9 | 2.2 | 2.6 | 3.8 | 2.8 | 3.4 | 1.9 | 1.9 | 3.1 |
| Imports of goods and services | 0.3 | –0.8 | –3.9 | –2.3 | –1.9 | –2.8 | –4.2 | –3.6 | –4.6 |
| | *Year-on-year change of the period average in %* | | | | | | | | |
| Unit labor costs in the whole economy (nominal, per hour) | 1.7 | 1.0 | –1.7 | 1.1 | –3.1 | –2.8 | –1.9 | –2.5 | 0.5 |
| Unit labor costs in manufacturing (nominal, per hour) | 1.9 | 0.2 | 2.8 | –0.5 | –1.5 | –0.5 | 3.7 | 4.2 | 3.9 |
| Labor productivity in manufacturing (real, per hour) | 2.5 | 3.2 | 2.7 | 3.1 | 6.9 | 5.9 | 3.0 | 1.0 | 1.2 |
| Labor costs in manufacturing (nominal, per hour) | 4.5 | 3.3 | 5.7 | 2.6 | 5.3 | 5.4 | 6.8 | 5.2 | 5.2 |
| Producer price index (PPI) in industry | 3.3 | –1.2 | –1.3 | –1.1 | –1.3 | –1.1 | –1.0 | –1.5 | –1.6 |
| Consumer price index (here: HICP) | 3.7 | 0.8 | 0.1 | 0.9 | 0.6 | 0.6 | 0.3 | –0.1 | –0.4 |
| EUR per 1 PLN, + = PLN appreciation | –1.6 | –0.3 | 0.3 | –2.6 | –1.8 | –0.7 | 0.8 | 1.7 | –0.6 |
| | *Period average levels* | | | | | | | | |
| Unemployment rate (ILO definition, %, 15–64 years) | 10.2 | 10.5 | 9.1 | 9.9 | 9.9 | 10.7 | 9.2 | 8.3 | 8.2 |
| Employment rate (%, 15–64 years) | 59.7 | 60.0 | 61.7 | 60.7 | 60.8 | 60.3 | 61.3 | 62.5 | 62.6 |
| Key interest rate per annum (%) | 4.6 | 2.9 | 2.4 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.0 |
| PLN per 1 EUR | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 | 4.2 |
| | *Nominal year-on-year change in the period-end stock in %* | | | | | | | | |
| Broad money (including foreign currency deposits) | 4.5 | 6.2 | 8.2 | 6.1 | 6.2 | 5.2 | 5.2 | 7.9 | 8.2 |
| | *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 | –1.5 | –2.8 | –4.3 | –1.7 | 1.2 | 3.0 |
| Domestic credit of the banking system | 15.1 | 9.5 | 18.2 | 7.7 | 8.1 | 7.9 | 7.2 | 10.1 | 9.5 |
| *of which: claims on the private sector* | 15.6 | 6.7 | 11.5 | 3.9 | 4.2 | 5.2 | 4.9 | 6.1 | 6.9 |
| *claims on households* | 7.6 | 3.0 | 6.1 | 2.7 | 2.7 | 2.9 | 2.8 | 3.2 | 3.2 |
| *claims on enterprises* | 8.0 | 3.7 | 5.5 | 1.3 | 1.5 | 2.3 | 2.1 | 3.0 | 3.7 |
| *claims on the public sector (net)* | –0.5 | 2.8 | 6.7 | 3.8 | 3.9 | 2.6 | 2.3 | 3.9 | 2.6 |
| Other assets (net) of the banking system | –7.6 | 1.2 | –3.7 | –0.1 | 1.0 | 1.6 | –0.2 | –3.4 | –4.4 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 39.2 | 38.2 | 38.6 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 42.9 | 42.2 | 41.8 | . . | . . | . . | . . | . . | . . |
| General government balance | –3.7 | –4.0 | –3.2 | . . | . . | . . | . . | . . | . . |
| Primary balance | –1.0 | –1.5 | –1.2 | . . | . . | . . | . . | . . | . . |
| Gross public debt | 54.4 | 55.7 | 50.1 | . . | . . | . . | . . | . . | . . |
| | *% of GDP* | | | | | | | | |
| Debt of nonfinancial corporations (nonconsolidated) | 43.0 | 42.4 | . . | . . | . . | . . | . . | . . | . . |
| Debt of households and NPISHs (nonconsolidated) | 35.2 | 35.3 | . . | . . | . . | . . | . . | . . | . . |
| | *% of GDP (based on EUR), period total* | | | | | | | | |
| Trade balance[1] | –1.8 | 0.2 | –0.4 | 0.5 | 0.1 | –0.4 | –0.4 | 0.0 | –0.7 |
| Services balance[1] | 1.6 | 2.0 | 2.2 | 1.8 | 1.7 | 2.4 | 2.5 | 1.9 | 2.0 |
| Primary income[1] | –3.3 | –3.3 | –3.1 | –3.8 | –3.6 | –2.5 | –2.7 | –4.0 | –3.2 |
| Secondary income[1] | 0.0 | –0.1 | –0.1 | 0.0 | 0.5 | –0.8 | –0.1 | 0.4 | 0.1 |
| Current account balance[1] | –3.5 | –1.3 | –1.4 | –1.6 | –1.2 | –1.3 | –0.8 | –1.7 | –1.7 |
| Capital account balance[1] | 2.2 | 2.3 | 2.4 | 2.3 | 2.4 | 1.5 | 3.6 | 1.9 | 2.6 |
| Foreign direct investment (net)[1] | 1.2 | 0.6 | 1.6 | 0.7 | –0.9 | 3.7 | –0.2 | 2.8 | 0.4 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt[1] | 71.9 | 70.2 | 70.3 | 71.5 | 70.2 | 69.5 | 70.7 | 71.6 | 70.3 |
| Gross official reserves (excluding gold)[1] | 20.3 | 18.8 | 19.3 | 19.3 | 18.8 | 17.9 | 17.7 | 18.8 | 19.3 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold)[1] | 5.4 | 5.1 | 5.1 | 5.2 | 5.1 | 4.9 | 4.7 | 5.1 | 5.1 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 386,455 | 396,026 | 412,124 | 97,199 | 110,830 | 96,341 | 100,413 | 102,244 | 113,126 |

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

[1] *Data based on the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6).*

## 9 Romania: private consumption booms, but wage growth exceeds productivity gains

Private consumption remains buoyant, gross fixed capital formation stays weak, net exports turn negative

Following feeble growth in the first half of 2014, economic activity in Romania picked up in the second half of the year. In total, GDP growth declined from 3.4% in 2013 to 2.9% in 2014. Private consumption was the main growth driver throughout the year, with further support coming from public consumption. Private consumption grew on the back of rising real wage growth (also pushed up by gradual minimum wage hikes), a declining unemployment rate and improving consumer confidence. Gross fixed capital formation continued to be a weak spot in the growth structure, though the final quarter brought about a small positive year-on-year growth. Export growth, after having been the main growth driver in 2013, decelerated considerably in the course of 2014. At the same time, strengthening domestic demand kept import growth at a high level and imports started to make a bigger growth contribution than exports in the second half of 2014. Thus, the contribution of net exports turned negative.

ULC on the rise, trade and services balance benefits from price effects

Meanwhile, strong wage growth began to translate into rising ULC in the manufacturing sector in the second half of 2014, as productivity increases did no longer keep pace with wage growth. Despite unfavorable export and import developments in real terms, the trade and services balance improved due to price effects (in particular with the oil price drop having a stronger impact on imports than on exports). In contrast to a small deficit in the second half of 2013, the trade and services balance posted a balanced position in the second half of 2014. As the income balances taken together improved as well, the current account even showed a small surplus. Net FDI inflows remained positive, but at a low level, while the economy's external debt ratio declined further.

Disinflation allows for further interest rate cuts

Annual CPI came in at 0.8% in December 2014 and fell to 0.4% in February 2015 due to lower fuel and food prices as well as a negative output gap. Hence, inflation remained considerably below the Romanian central bank's inflation target band of 2.5% +/–1%. Against this background, the central bank continued to reduce its key policy rate in four further 25-basis point steps (between November and March) to 2%. Looking forward, the Romanian central bank expects inflation to return inside the target band only in the fourth quarter of 2015.

Budget deficit shrinks further, conclusion of review under precautionary support program still pending

The general budget deficit declined to 1.5% of GDP in 2014 from 2.2% in 2013. In particular, capital expenditure declined markedly from 2013, contributing to the fall in gross fixed capital formation. In December 2014, a joint IMF-European Commission team reached broad understanding with the Romanian authorities on the 2015 budget (envisaging a deficit of 1.2% of GDP) in line with the targets of the precautionary IMF-EU support program. Nevertheless, the review under this program, which was originally scheduled for completion in June 2014, has not been finalized so far. According to the Romanian authorities, no agreement was reached on the liberalization of gas prices for households and on the restructuring of state-owned enterprises. On top of this, recently announced plans to cut taxes met with IMF skepticism at the end of the Article IV consultations at end-March. Though the reform momentum has apparently come to a halt for structural reforms in the above-mentioned areas, it should be noted that the European Commission's report under the Cooperation and Verification Mechanism highlighted progress concerning the fight against corruption and the improvement of the judicial system.

Table 9

## Main economic indicators: Romania

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | 0.6 | 3.4 | 2.8 | 4.2 | 5.2 | 4.1 | 1.5 | 3.0 | 2.7 |
| Private consumption | 1.1 | 1.2 | 4.5 | 1.8 | 2.7 | 6.4 | 3.7 | 4.0 | 4.2 |
| Public consumption | 0.6 | –6.3 | 4.7 | –11.2 | –12.3 | –2.1 | 6.7 | 6.4 | 6.8 |
| Gross fixed capital formation | 0.6 | –9.2 | –3.3 | –8.2 | –11.7 | –7.7 | –8.6 | –1.0 | 1.4 |
| Exports of goods and services | 1.7 | 14.4 | 8.2 | 19.8 | 22.1 | 14.6 | 6.9 | 8.0 | 3.6 |
| Imports of goods and services | –1.8 | 4.0 | 7.7 | 7.8 | 9.2 | 12.8 | 6.0 | 6.8 | 6.3 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | –0.5 | –0.9 | 2.7 | 0.8 | 0.5 | 4.3 | –0.5 | 2.8 | 3.9 |
| Net exports of goods and services | 1.1 | 4.3 | 0.1 | 4.4 | 4.6 | 1.0 | 2.2 | –0.3 | –1.7 |
| Exports of goods and services | 0.4 | 6.1 | 3.2 | 7.7 | 7.3 | 8.4 | 4.3 | 2.1 | 0.1 |
| Imports of goods and services | 0.8 | –1.8 | –3.1 | –3.3 | –2.8 | –7.4 | –2.1 | –2.4 | –1.9 |
| | *Year-on-year change of the period average in %* | | | | | | | | |
| Unit labor costs in the whole economy (nominal, per hour) | 3.2 | –0.8 | 0.4 | –2.4 | –5.3 | –0.6 | 3.1 | 1.0 | –2.3 |
| Unit labor costs in manufacturing (nominal, per hour) | 6.4 | –0.2 | 1.1 | –2.8 | –1.5 | –3.2 | –2.4 | 3.5 | 6.5 |
| Labor productivity in manufacturing (real, per hour) | 0.9 | 6.2 | 5.8 | 7.9 | 7.2 | 10.2 | 8.7 | 2.8 | 2.2 |
| Labor costs in manufacturing (nominal, per hour) | 7.3 | 5.9 | 7.1 | 4.9 | 5.5 | 6.7 | 6.1 | 6.5 | 8.8 |
| Producer price index (PPI) in industry | 5.4 | 2.1 | –0.1 | 0.8 | –0.4 | –1.0 | 0.6 | 0.3 | –0.5 |
| Consumer price index (here: HICP) | 3.4 | 3.2 | 1.4 | 2.4 | 1.3 | 1.3 | 1.3 | 1.5 | 1.4 |
| EUR per 1 RON, + = RON appreciation | –4.9 | 0.9 | –0.6 | 1.9 | 1.7 | –2.6 | –0.6 | 0.6 | 0.4 |
| | *Period average levels* | | | | | | | | |
| Unemployment rate (ILO definition, %, 15–64 years) | 7.1 | 7.4 | 7.1 | 7.0 | 7.4 | 7.5 | 7.0 | 6.8 | 7.0 |
| Employment rate (%, 15–64 years) | 60.2 | 60.1 | 61.0 | 61.3 | 59.9 | 59.5 | 61.2 | 62.6 | 60.8 |
| Key interest rate per annum (%) | 5.3 | 4.8 | 3.3 | 4.7 | 4.1 | 3.6 | 3.5 | 3.3 | 2.8 |
| RON per 1 EUR | 4.5 | 4.4 | 4.4 | 4.4 | 4.5 | 4.5 | 4.4 | 4.4 | 4.4 |
| | *Nominal year-on-year change in the period-end stock in %* | | | | | | | | |
| Broad money (including foreign currency deposits) | 2.7 | 8.8 | 8.2 | 4.8 | 8.8 | 6.4 | 5.3 | 5.1 | 8.2 |
| | *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 | 13.6 | 13.6 | 12.0 | 14.1 | 10.9 | 11.9 |
| Domestic credit of the banking system | 11.5 | –5.4 | –11.1 | –11.7 | –5.3 | –6.5 | –7.9 | –6.3 | –5.3 |
| *of which: claims on the private sector* | 8.3 | –1.9 | –6.3 | –3.4 | –3.3 | –2.6 | –3.7 | –3.9 | –2.8 |
| *claims on households* | 1.2 | –0.5 | –1.1 | –1.1 | –0.5 | –0.5 | –1.2 | –1.1 | –0.5 |
| *claims on enterprises* | 7.1 | –1.4 | –5.3 | –2.3 | –2.7 | –2.1 | –2.5 | –2.8 | –2.4 |
| *claims on the public sector (net)* | 3.2 | –3.5 | –4.7 | –8.3 | –2.1 | –3.8 | –4.2 | –2.3 | –2.4 |
| Other assets (net) of the banking system | –7.6 | –3.6 | 2.2 | 2.9 | 0.5 | 0.9 | –0.9 | 0.5 | 1.6 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 33.5 | 33.0 | 33.4 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 36.4 | 35.2 | 34.9 | . . | . . | . . | . . | . . | . . |
| General government balance | –2.9 | –2.2 | –1.5 | . . | . . | . . | . . | . . | . . |
| Primary balance | –1.2 | –0.5 | 0.1 | . . | . . | . . | . . | . . | . . |
| Gross public debt | 37.3 | 38.0 | 39.8 | . . | . . | . . | . . | . . | . . |
| | *% of GDP* | | | | | | | | |
| Debt of nonfinancial corporations (nonconsolidated) | 52.3 | 47.7 | . . | . . | . . | . . | . . | . . | . . |
| Debt of households and NPISHs (nonconsolidated) | 20.7 | 18.9 | . . | . . | . . | . . | . . | . . | . . |
| | *% of GDP (based on EUR), period total* | | | | | | | | |
| Trade balance[1] | –6.7 | –3.8 | –3.7 | –4.4 | –3.5 | –3.5 | –4.3 | –3.4 | –3.6 |
| Services balance[1] | 1.9 | 3.3 | 3.9 | 3.2 | 2.9 | 4.7 | 4.3 | 3.4 | 3.6 |
| Primary Income[1] | –1.7 | –2.2 | –1.9 | –2.0 | –3.6 | –3.1 | –3.1 | –1.3 | –0.8 |
| Secondary Income[1] | 2.0 | 1.9 | 1.2 | 1.6 | 2.5 | 0.9 | 1.3 | 1.5 | 1.0 |
| Current account balance[1] | –4.5 | –0.8 | –0.5 | –1.5 | –1.8 | –1.0 | –1.7 | 0.2 | 0.3 |
| Capital account balance[1] | 1.4 | 2.1 | 2.6 | 2.9 | 2.5 | 5.5 | 1.1 | 1.0 | 3.6 |
| Foreign direct investment (net)[1] | 1.8 | 2.0 | 1.6 | 1.8 | 3.2 | 2.2 | 1.5 | 1.9 | 1.2 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt[1] | 75.5 | 68.0 | 62.8 | 71.0 | 68.0 | 67.0 | 66.1 | 64.0 | 62.8 |
| Gross official reserves (excluding gold)[1] | 23.4 | 22.6 | 21.5 | 23.6 | 22.6 | 21.5 | 21.3 | 20.9 | 21.5 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold)[1] | 6.7 | 6.7 | 6.3 | 7.0 | 6.7 | 6.3 | 6.2 | 6.1 | 6.3 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 133,518 | 144,130 | 150,147 | 39,753 | 42,967 | 28,785 | 35,292 | 41,627 | 44,443 |

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

[1] *Data based on the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6).*

## 10 Turkey: investment dips amid increased uncertainty

Consumption growth holds up against falling investment

Economic growth in Turkey moderated to 2.9% in 2014 (from 4.2% in 2013). After a continuous deceleration in the first three quarters, real GDP growth rebounded moderately in the fourth quarter given a slight recovery of domestic demand backed by private consumption and inventory accumulation. Despite a further decline in gross fixed capital formation, strong public and private consumption also implied a positive contribution of domestic demand to GDP growth. Investor confidence has been affected by some domestic political events and by military conflicts in neighboring regions. In 2014, the unemployment rate rose to 10%, from 8.9% in 2013, while employment remained stable at around 50%, falling marginally again in the last quarter. Recent leading indicators point toward weak growth in 2015; the PMI contracted in four consecutive months to 48 points in March; and industrial output, export orders and business sentiment all showed a declining trend in the first three months of 2015.

Narrowing of current account deficit reversed in last quarter of 2014

The growth contribution of net exports turned slightly negative in the fourth quarter of 2014, given rising imports. Export growth was further impaired by ongoing conflicts in important export destinations (demand from countries such as Russia and Iraq fell notably) but also as a result of worsened price competitiveness compared to the euro area – Turkey's main trading partner – due to rising unit labor costs and falling labor productivity. Still, overall strong export growth and falling imports in the first three quarters of 2014 reduced the current account deficit to 5.8% of GDP in 2014 (from 7.9% in 2013). Yet the dependence on short-term financing of the current account deficit remains high – net FDI inflows accounted only for 12% of the deficit in 2014 – even though portfolio inflows recovered in the last three quarters, covering 43% of the current account deficit.

Turkish central bank torn between pursuing price stability and nurturing economic activity

Since early 2015, the Turkish lira has weakened against the U.S. dollar by more than 12%, to TRY 2.6 per U.S. dollar on April 1, 2015 (following a historic peak of TRY 2.64 per U.S. dollar on March 10). Against the euro, the Turkish lira depreciated by less than 1% (TRY 2.8 per euro). In early March, the Turkish central bank attempted to counter the depreciation pressure (against the U.S. dollar) by setting the amount for foreign exchange auctions on a daily basis, notifying increases over the pre-announced minimum when deemed necessary, and cutting the rate on foreign currency borrowing facilities for banks – with no effect so far. Even though the level of policy interest rates did not help stabilize the exchange rate, the Turkish central bank cut the benchmark interest rate by 75 basis points to 7.5% in two steps in January and February 2015.These cuts followed pressure from the government, with the central bank governor and the President of the Republic of Turkey ultimately jointly confirming the benefits of the monetary policy focus on price stability and the risk of loose monetary policy for the currency on March 12, 2015.

Inflation accelerated slightly in 2014, to 8.9% on average. Having peaked at 9.8% in August 2014, inflation decelerated to 7.2% in January 2015, reflecting above all lower energy prices. While this factor should help bring inflation down further, recent increases in food and housing prices led to another upward tick in consumer prices, to 7.6% in March 2015. Thus, inflation remains well above the target of 5%, which is still rather high even if catching up is taken into account.

Although 2014 was an election year, Turkey's deficit undershot the target and is expected to have reached –1.5% of GDP (–1.6% 2013). For 2015, some fiscal tightening is envisaged, the deficit should narrow to 1.1%, against the backdrop of a general government debt target of 31.8%.

Table 10

## Main economic indicators: Turkey

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | 2.5 | 4.2 | 2.9 | 4.3 | 4.6 | 4.9 | 2.3 | 1.9 | 2.6 |
| Private consumption | –0.7 | 5.1 | 1.3 | 5.6 | 6.1 | 2.6 | 0.4 | 0.1 | 2.4 |
| Public consumption | 6.4 | 6.5 | 4.6 | 1.9 | 7.9 | 9.2 | 2.5 | 6.6 | 1.7 |
| Gross fixed capital formation | –1.9 | 4.4 | –1.3 | 5.8 | 7.5 | –0.3 | –3.5 | –0.4 | –1.0 |
| Exports of goods and services | 17.8 | –0.2 | 6.8 | –2.2 | –1.2 | 11.1 | 5.5 | 7.9 | 3.4 |
| Imports of goods and services | 0.6 | 9.0 | –0.2 | 5.2 | 10.5 | 0.7 | –4.3 | –1.6 | 4.6 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | –1.6 | 7.4 | 1.2 | 6.6 | 8.2 | 2.3 | –0.3 | –0.8 | 3.6 |
| Net exports of goods and services | 3.6 | –2.3 | 1.6 | –1.8 | –2.9 | 2.3 | 2.5 | 2.2 | –0.4 |
| Exports of goods and services | 3.8 | –0.1 | 1.6 | –0.5 | –0.3 | 2.5 | 1.3 | 1.8 | 0.8 |
| Imports of goods and services | –0.2 | –2.3 | 0.0 | –1.2 | –2.6 | –0.2 | 1.2 | 0.4 | –1.2 |
| | *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 | 10.7 | 10.6 | 11.0 | 13.6 | 12.9 | 13.9 |
| Labor productivity in manufacturing (real, per hour) | –1.9 | 1.7 | 1.3 | 2.0 | 3.1 | 3.8 | 1.0 | 1.1 | –0.6 |
| Gross wages in manufacturing (nominal, per hour) | 11.4 | 12.2 | 14.3 | 12.9 | 14.0 | 15.2 | 14.8 | 14.2 | 13.2 |
| Producer price index (PPI) in industry | 6.1 | 4.5 | 10.2 | 6.4 | 6.5 | 11.8 | 11.3 | 9.7 | 8.3 |
| Consumer price index (here: HICP) | 9.0 | 7.5 | 8.9 | 8.2 | 7.5 | 8.1 | 9.3 | 9.4 | 8.8 |
| EUR per 1 TRY, + = TRY appreciation | 0.9 | –8.6 | –12.9 | –13.5 | –15.5 | –22.4 | –17.0 | –8.9 | –2.5 |
| | *Period average levels* | | | | | | | | |
| Unemployment rate (ILO definition, %, 15–64 years) | 8.4 | 8.9 | 10.1 | 8.9 | 9.1 | 10.3 | 8.9 | 10.2 | 10.9 |
| Employment rate (%, 15–64 years) | 48.9 | 49.5 | 49.5 | 50.3 | 49.1 | 48.0 | 50.8 | 50.2 | 49.1 |
| Key interest rate per annum (%) | 5.7 | 4.8 | 8.7 | 4.5 | 4.5 | 8.4 | 9.7 | 8.3 | 8.3 |
| TRY per 1 EUR | 2.3 | 2.5 | 2.9 | 2.6 | 2.8 | 3.0 | 2.9 | 2.9 | 2.8 |
| | *Nominal year-on-year change in the period-end stock in %* | | | | | | | | |
| Broad money (including foreign currency deposits) | 10.5 | 21.1 | 11.8 | 19.0 | 21.1 | 19.8 | 16.0 | 14.9 | 11.8 |
| | *Contributions to the year-on-year change of broad money in percentage points* | | | | | | | | |
| Net foreign assets of the banking system | 2.2 | –5.2 | –10.7 | –2.7 | –5.9 | –4.8 | –2.4 | –3.6 | –4.0 |
| Domestic credit of the banking system | 38.5 | 51.9 | 57.9 | 29.5 | 31.7 | 31.2 | 26.5 | 24.0 | 21.6 |
| *of which: claims on the private sector* | 46.5 | 55.6 | 58.6 | 33.1 | 33.5 | 32.4 | 25.2 | 22.3 | 20.8 |
| *claims on households* | 15.3 | 15.2 | 14.3 | 8.8 | 8.4 | 6.2 | 4.0 | 2.9 | 4.9 |
| *claims on enterprises* | 31.2 | 40.4 | 44.3 | 24.3 | 25.1 | 26.1 | 21.1 | 19.4 | 15.9 |
| *claims on the public sector (net)* | –8.1 | –3.7 | –0.7 | –3.6 | –1.7 | –1.2 | 1.4 | 1.8 | 0.8 |
| Other assets (net) of the banking system | –13.3 | –12.9 | –11.8 | –7.8 | –4.7 | –6.6 | –8.1 | –5.5 | –5.9 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 37.8 | 39.0 | 39.0 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 38.1 | 40.6 | 40.5 | . . | . . | . . | . . | . . | . . |
| General government balance | –0.3 | –1.6 | –1.5 | . . | . . | . . | . . | . . | . . |
| Primary balance | . . | . . | . . | . . | . . | . . | . . | . . | . . |
| Gross public debt | 36.2 | 36.2 | 34.3 | . . | . . | . . | . . | . . | . . |
| | *% of GDP* | | | | | | | | |
| Debt of nonfinancial corporations (nonconsolidated) | . . | . . | . . | . . | . . | . . | . . | . . | . . |
| Debt of households and NPISHs (nonconsolidated) | . . | . . | . . | . . | . . | . . | . . | . . | . . |
| | *% of GDP (based on EUR), period total* | | | | | | | | |
| Trade balance[1] | –8.3 | –9.7 | –8.0 | –9.5 | –9.6 | –6.5 | –8.6 | –7.5 | –9.2 |
| Services balance[1] | 2.9 | 2.8 | 3.2 | 4.6 | 2.5 | 1.4 | 3.2 | 5.2 | 2.6 |
| Primary income[1] | –0.9 | –1.1 | –1.1 | –0.9 | –0.9 | –1.3 | –1.1 | –1.0 | –1.1 |
| Secondary income[1] | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 |
| Current account balance[1] | –6.1 | –7.9 | –5.8 | –5.7 | –7.8 | –6.3 | –6.2 | –3.1 | –7.5 |
| Capital account balance[1] | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Foreign direct investment (net)[1] | 1.2 | 1.1 | 0.7 | 1.2 | 1.3 | 1.7 | 0.8 | 0.1 | 0.3 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt[1] | 47.4 | 50.0 | 59.6 | 48.7 | 50.0 | 50.5 | 54.0 | 57.2 | 59.6 |
| Gross official reserves (excluding gold)[1] | 12.4 | 13.1 | 14.6 | 12.9 | 13.1 | 12.8 | 13.8 | 14.9 | 14.6 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold)[1] | 4.7 | 4.9 | 5.4 | 4.9 | 4.9 | 4.7 | 5.1 | 5.5 | 5.4 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 612,976 | 619,300 | 602,951 | 159,991 | 147,484 | 135,415 | 147,782 | 161,778 | 157,976 |

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

[1] *Data based on the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6).*

## 11 Russia: further economic weakening given oil price decline and economic sanctions

Russia en route to recession

Russian economic growth further eased to 0.6% in 2014 under the impact slumping oil prices and tightened Western economic sanctions in connection with the Ukrainian crisis. The average annual oil price for Urals grade crude was almost 10% lower in 2014 than in 2013. In March 2015, it was almost 48% lower year on year. Uncertainty contributed to a contraction of gross fixed capital investment by 2% in 2014, while the growth rate of private consumption – still the main driving force of economic activity – further eased to 1.2%. The sharp contraction of imports (stronger than that of exports) supported the growth contribution of net exports.

Oil price plunge and record capital outflows trigger substantial ruble depreciation…

Falling imports were largely due to the substantial depreciation of the Russian ruble. Declining oil prices and strong capital outflows (see below) triggered year-on-year losses of the ruble's external value, of 42% against the U.S. dollar and 37% against the euro during 2014. The Central Bank of Russia (CBR) brought forward its official move to inflation targeting, declaring that from November 10, 2014, it would no longer intervene to support the currency unless financial stability was in danger. This decision was flanked by two increases of the key interest rate in the fall of 2014 by a total of 250 basis points to 10.5%. Still, in the wake of the accelerating oil price decline in early December, the CBR stepped up its foreign exchange interventions to support the Russian ruble and, when the plunge of the ruble intensified in mid-December, sharply increased the key interest rate to 17%.

… prompting sharply key interest rate increases, but exchange rate passthrough pushes up inflation

The stabilization of the oil price (on a low level) in January 2015 and its slight recovery in February as well as the substantial interest rate hike have supported the Russian ruble and reined in foreign exchange market tensions, even if the exchange rate passthrough pushed inflation to 16.9% at end-March 2015. The CBR lowered its key interest rate to 15% in early February and to 14% in early March to account for the "shift in the balance of risks" toward the "cooling economy." The Russian ruble has appreciated substantially since then, partly also due to carry trades by Russian banks. Increased uncertainty due to the oil price decline and the economic sanctions is largely responsible for record-high capital outflows: Private net capital outflows reached USD 152 billion in 2014 (almost half thereof in the fourth quarter). Due to repeated sizeable interventions by the CBR, in the six months since late September 2014 Russia's international reserves (including gold) shrank by about one-fifth to USD 356 billion (EUR 331 billion).

Sanctions force Russian banks and enterprises to pay down external debt

The tight restrictions on Russian state-owned banks' and enterprises' access to EU and U.S. capital markets rendered cross-border refinancing very difficult. This played a primary role in the reduction of Russia's total external debt in the second half of 2014 to EUR 489 billion, or 34.8% of GDP.

Banking activity is swiftly losing momentum, credit quality is decreasing, capitalization needs to improv

Financial intermediation in Russia is clearly on the downturn: Lending to the private sector contracted in February 2015 by almost 6% (year on year, in real terms and exchange rate-adjusted). Household deposits contracted even faster, by 14%, whereas enterprise deposits increased by 8%, probably largely on account of state-owned firms' placements. Given deteriorating credit quality, the capital adequacy ratio declined to 12.0% at end-January 2015. The authorities decided on recapitalization measures for a number of large banks. The continuing relatively tight fiscal stance and the decline of the Russian ruble (which partly offset lower oil prices) resulted in only a modest budget deficit in 2014, while shrinking import demand produced a growing current account surplus.

Table 11

## Main economic indicators: Russia

| | 2012 | 2013 | 2014 | Q3 13 | Q4 13 | Q1 14 | Q2 14 | Q3 14 | Q4 14 |
|---|---|---|---|---|---|---|---|---|---|
| | *Year-on-year change of the period total in %* | | | | | | | | |
| GDP at constant prices | 3.4 | 1.3 | 0.6 | 1.3 | 2.1 | 0.6 | 0.7 | 0.9 | 0.4 |
| Private consumption | 7.7 | 4.9 | 1.2 | 5.7 | 3.4 | 3.9 | 0.2 | 0.2 | 0.9 |
| Public consumption | 2.6 | 1.1 | –0.1 | 1.1 | 1.1 | 0.0 | 0.0 | –0.1 | –0.2 |
| Gross fixed capital formation | 6.7 | 0.9 | –2.0 | –0.6 | 0.7 | –4.5 | –1.9 | –1.7 | –1.2 |
| Exports of goods and services | 1.1 | 4.6 | –0.1 | 7.4 | 6.0 | 2.0 | 1.7 | –1.3 | –2.3 |
| Imports of goods and services | 8.7 | 3.8 | –7.9 | 5.1 | –0.7 | –6.6 | –9.6 | –7.6 | –7.8 |
| | *Contribution to GDP growth in percentage points* | | | | | | | | |
| Domestic demand | 5.2 | 1.2 | –0.9 | 0.6 | 0.4 | –0.5 | –1.5 | –0.9 | –0.6 |
| Net exports of goods and services | –1.7 | 0.5 | 1.9 | 0.8 | 2.0 | 2.2 | 2.8 | 1.7 | 1.2 |
| Exports of goods and services | 0.3 | 1.4 | 0.0 | 2.1 | 1.9 | 0.7 | 0.5 | –0.4 | –0.7 |
| Imports of goods and services | –2.0 | –0.9 | 2.0 | –1.3 | 0.2 | 1.6 | 2.2 | 2.1 | 1.9 |
| | *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 | 8.6 | 5.7 | 6.9 | 5.0 | 5.3 | 5.2 |
| Labor productivity in industry (real, per person) | 4.8 | 2.3 | 3.4 | 2.4 | 3.3 | 2.5 | 3.7 | 3.4 | 4.0 |
| Average gross earnings in industry (nominal, per person) | 12.6 | 10.3 | 9.2 | 11.2 | 9.2 | 9.6 | 8.9 | 9.0 | 9.5 |
| Producer price index (PPI) in industry | 6.8 | 3.3 | 5.9 | 4.4 | 2.2 | 4.2 | 8.2 | 5.8 | 5.5 |
| Consumer price index (here: CPI) | 5.1 | 6.8 | 7.8 | 6.3 | 6.4 | 6.4 | 7.5 | 7.7 | 9.6 |
| EUR per 1 RUB, + = RUB appreciation | 2.4 | –5.7 | –17.0 | –8.0 | –9.1 | –16.5 | –13.7 | –9.6 | –26.0 |
| | *Period average levels* | | | | | | | | |
| Unemployment rate (ILO definition, %, 15–64 years) | 5.5 | 5.5 | 5.2 | 5.3 | 5.5 | 5.5 | 5.0 | 4.9 | 5.2 |
| Employment rate (%, 15–64 years) | . . | . . | . . | . . | . . | . . | . . | . . | . . |
| Key interest rate per annum (%) | 5.3 | 5.5 | 7.9 | 5.5 | 5.5 | 6.0 | 7.4 | 7.9 | 10.3 |
| RUB per 1 EUR | 39.9 | 42.3 | 51.0 | 43.4 | 44.3 | 48.1 | 48.0 | 48.1 | 59.9 |
| | *Nominal year-on-year change in the period-end stock in %* | | | | | | | | |
| Broad money (including foreign currency deposits) | 12.1 | 15.7 | 15.5 | 16.8 | 15.7 | 13.4 | 9.1 | 10.7 | 15.5 |
| | *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 | 2.3 | 2.7 | 5.1 | 0.3 | 4.7 | 19.0 |
| Domestic credit of the banking system | 38.3 | 35.1 | 33.6 | 18.2 | 17.5 | 15.9 | 14.2 | 14.3 | 13.9 |
| *of which: claims on the private sector* | 46.2 | 36.9 | 43.3 | 19.1 | 16.9 | 17.5 | 15.4 | 16.0 | 22.8 |
| *claims on households* | 16.3 | 16.5 | 11.9 | 8.1 | 7.4 | 7.0 | 5.9 | 5.3 | 3.9 |
| *claims on enterprises* | 29.9 | 20.4 | 31.4 | 11.0 | 9.6 | 10.5 | 9.6 | 10.7 | 18.9 |
| *claims on the public sector (net)* | –7.9 | –1.9 | –9.7 | –0.9 | 0.6 | –1.6 | –1.3 | –1.7 | –8.9 |
| Other assets (net) of the banking system | –12.4 | –8.2 | –24.7 | –3.7 | –4.6 | –7.6 | –5.3 | –8.2 | –17.4 |
| | *% of GDP* | | | | | | | | |
| General government revenues | 37.1 | 36.9 | 36.9 | . . | . . | . . | . . | . . | . . |
| General government expenditures | 36.7 | 38.2 | 38.1 | . . | . . | . . | . . | . . | . . |
| 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[1] | 9.5 | 8.8 | 10.1 | 8.3 | 8.3 | 11.5 | 10.5 | 8.7 | 10.2 |
| Services balance[1] | –2.3 | –2.8 | –3.0 | –3.7 | –2.5 | –2.5 | –2.9 | –3.6 | –2.7 |
| Primary income[1] | –3.4 | –3.9 | –3.6 | –4.0 | –3.7 | –2.7 | –4.9 | –3.3 | –3.4 |
| Secondary income[1] | –0.3 | –0.4 | –0.4 | –0.6 | –0.6 | –0.4 | –0.1 | –0.7 | –0.4 |
| Current account balance[1] | 3.5 | 1.7 | 3.2 | 0.0 | 1.4 | 5.9 | 2.5 | 1.2 | 3.7 |
| Capital account balance[1] | –0.3 | 0.0 | –2.4 | 0.0 | 0.0 | 0.0 | 0.0 | –1.9 | –7.6 |
| Foreign direct investment (net)[1] | 0.1 | –0.8 | –2.0 | 0.7 | –0.8 | –0.4 | –0.5 | –2.4 | –4.6 |
| | *% of GDP (rolling four-quarter GDP, based on EUR), end of period* | | | | | | | | |
| Gross external debt[1] | 31.4 | 34.1 | 34.8 | 33.7 | 34.3 | 34.5 | 35.9 | 36.3 | 34.8 |
| Gross official reserves (excluding gold)[1] | 23.7 | 21.8 | 19.9 | 22.5 | 21.8 | 21.1 | 21.1 | 21.9 | 19.9 |
| | *Months of imports of goods and services* | | | | | | | | |
| Gross official reserves (excluding gold)[1] | 12.8 | 11.5 | 10.4 | 11.9 | 11.5 | 11.1 | 11.1 | 11.7 | 10.4 |
| | *EUR million, period total* | | | | | | | | |
| GDP at current prices | 1,556,545 | 1,560,883 | 1,404,130 | 401,630 | 413,667 | 321,445 | 360,693 | 389,426 | 332,565 |

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

[1] *Data based on the sixth edition of the IMF's Balance of Payments and International Investment Position Manual (BPM6).*

# Outlook for selected CESEE countries:

## Steady growth in CESEE-6[1], deep recession in Russia[2,3]

Annual economic growth in the CESEE-6 region will settle at about 3% from 2015 to 2017, thus continuing the moderate expansion observed in 2014. This outlook corresponds to an annual improvement of less than ½ percentage point over the October 2014 projections and is in line with the improved external environment outlook. Improving external conditions imply strong export growth, but import growth will also be robust, pushing the contribution of net exports close to or slightly below zero. Domestic demand will thus continue to be the main growth driver. In 2015, all countries in the region are expected to post positive GDP growth, with Poland remaining the growth engine and Croatia being at the bottom of the league. The economic expansion will, however, remain too weak to speed up the convergence process. Given steady growth in 2016 and 2017, the region's growth advantage over the euro area average will even decline from 1.4 percentage points in 2015 to about 1 percentage point in 2016 and 2017.

Following almost flat growth in 2014, the Russian economy is contracting in 2015 on account of the oil price slump. We forecast Russian GDP to decrease by over 4% in 2015. Private investment will remain plagued by uncertainty, which is reinforced by ongoing geopolitical conflict and Western sanctions related to the

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 | 2.8 | 2.9 | 2.9 | 3.0 | 8.5 | 7.2 | 7.5 | 7.6 |
| Bulgaria | 1.5 | 1.6 | 1.8 | 2.1 | 4.8 | 4.5 | 5.7 | 5.8 |
| Croatia | –0.4 | 0.4 | 1.1 | 2.2 | 3.1 | 1.9 | 2.8 | 2.6 |
| Czech Republic | 2.0 | 2.7 | 2.4 | 2.5 | 9.6 | 8.5 | 8.8 | 8.6 |
| Hungary | 3.6 | 2.9 | 2.0 | 2.3 | 10.0 | 7.9 | 7.7 | 7.9 |
| Poland | 3.3 | 3.4 | 3.5 | 3.5 | 8.4 | 6.8 | 7.4 | 7.4 |
| Romania | 2.8 | 2.7 | 2.9 | 3.1 | 7.9 | 7.5 | 7.8 | 8.0 |
| Russia | 0.6 | –4.4 | –1.8 | 0.5 | –7.0 | –20.0 | –4.0 | 3.0 |

*Source: OeNB-BOFIT April 2015 forecast, Eurostat, Rosstat.*

*Note: CESEE-6 = Bulgaria, Croatia, the Czech Republic, Hungary, Poland, Romania; 2014 figures based on seasonally adjusted data.*

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

[2] *Compiled by Julia Wörz with input from Stephan Barisitz, Markus Eller, Florian Huber, Mathias Lahnsteiner, Isabella Moder, Thomas Reininger and Zoltan Walko.*

[3] *Cut-off date for data underlying this outlook: April 2, 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 gradual recovery in the euro area in line with the March 2015 ECB staff macroeconomic projections for the euro area. This implies real annual GDP growth in the euro area of 1.5% in 2015, 1.9% in 2016, 2.1% in 2017 and a gradual increase of the oil price over the projection horizon in line with the upward sloping oil price futures curve. We assume no further escalation of the Ukraine-Russia conflict, but also no settlement and hence a prolongation of the current sanctions over the entire projection horizon.*

crisis in Ukraine. Private consumption will be curbed by high inflation. Imports will continue to decline sharply – by an estimated 20% – due to shrinking domestic demand, the weak ruble and falling export proceeds. In 2016 and 2017, a moderate recovery in oil prices will help revive export revenues and cause the contraction of the economy to fade.

## 1 CESEE-6: growth remains broadly based but too moderate to accelerate catching-up

For 2015, we expect all elements of the currently fairly growth-friendly environment to remain intact.[4] Low inflation – even deflation in Bulgaria in the last 18 months and more recently also in Hungary – will provide leeway for continued monetary policy accommodation. Low energy prices help purchasing power to remain high. Moreover, some countries have taken policy measures to support domestic demand further. Also, we expect no headwinds from the fiscal side, except for Croatia. Here consolidation needs remain considerable, as reflected in our projection of a decline in public consumption over the entire forecast horizon. Nevertheless, the Croatian government has lowered income taxes recently to boost consumption. No substantial fiscal tightening is in the offing for Bulgaria, either, despite the repayment of insured deposits following the failure of Corporate Commercial Bank. The recovery in CESEE-6 labor markets will also continue, supported by policy measures in some countries. In January 2015, wages hikes took place in the Czech Republic (public sector wages) and in Romania (minimum wage). We expect employment to keep rising and the gradual decline in unemployment rates to continue.

Contribution of domestic demand remains stable

The contribution of domestic demand remains stable in all countries throughout 2015–2017 with the exception of Hungary. Here, the contribution will recede in 2016 and 2017, as the central bank's Funding for Growth Scheme (FGS) programs expire and one-off factors supporting households in the conversion of foreign currency loans disappear; other reasons include the generally lower investment rates following exceptionally high levels in 2014 and 2015. Overall, GDP growth in CESEE-6 will be driven essentially by domestic demand from the private sector, whereas public consumption growth will fall short of private consumption growth over the entire forecast horizon.

Private consumption growth in the CESEE-6 countries will accelerate in 2015 and settle at slightly above 3% in 2016 and 2017. The two outliers are Romania (where private consumption will moderate, having increased by as much as 5.4% in 2014) and Croatia (where private consumption growth will increase most among the countries in the area but reach only 2% in 2017). Overall, the contribution of private consumption to GDP growth will remain steady or increase slightly over the projection horizon. As mentioned above, public consumption will not substantially add to GDP growth even as consolidation pressures have eased. In Croatia, it will even show a slightly negative growth contribution because of the excessive deficit procedure.

Investment growth is softening on a high level

Given an exceptionally strong expansion of gross fixed capital formation (GFCF) in 2014 as a result of overlapping fund disbursements under two EU multiannual fiscal frameworks, we expect investment growth to decelerate in

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

2015. With the EU funding overlap ending in 2015, EU-cofunded investment activities are slowing down, without sufficient replacement by (purely) private investment projects. Nevertheless, gross fixed capital formation will remain strong at almost 5% on average amid sound financing conditions for firms (especially in Poland), rising domestic and external demand, and improved fiscal positions in most countries. Hungary and Croatia are the only countries where these factors are less pronounced or not in place. Hence, we do not expect to see any notable growth in private investments in those two countries, where gross fixed capital formation will continue to rely mostly on EU-cofunded projects. In Croatia, following six years of shrinking GFCF, the trough in gross fixed capital formation growth was reached in 2014. With still negative growth rates in 2015, we expect fixed investment growth to regain positive territory in 2016. In all CESEE-6 countries, gross fixed capital formation will expand in 2016 and 2017, receiving a slight push from increased EU fund utilization in many countries.

For the CESEE-6, euro area recovery provides increasingly favorable external conditions over the entire projection horizon. By driving up euro area demand for CESEE goods and services, the ECB's asset purchase programs will boost CESEE-6 export performance. In contrast, the potential effects on capital flows to the CESEE-6 region arising from quantitative easing in the euro area – such as appreciation pressures, lower interest rates or higher yields in the region – are likely to broadly offset each other.

Taking a small dip in 2015 to around 6% – partly compensating for extremely high export growth in 2014 and partly reflecting country-specific factors such as expiring expansionary effects from increased car production capacities in Hungary – export growth of the CESEE-6 countries will rise to almost 7% in 2017. In view of our external assumption on euro area growth, these rates represent a rather moderate expansion of export activity in the region, but they are in line with our assumption on euro area import demand and also reflect a slight deterioration in price competitiveness due to developments of relative wages and exchange rates. Given differing exchange rate regimes, especially the latter effect will vary between individual countries.

Strong import demand erodes positive growth contribution of net exports

However, in line with strong domestic demand and the strong import-export nexus especially in the more open CESEE-6 economies, import growth will also be strong, rising marginally from 7.2% in 2015 to 7.6% in 2017. As a result, the net contribution of external demand will hover around zero. Only Croatia, where domestic demand is lagging behind, will see a clear, positive contribution of 0.6 percentage points to 1 percentage point. In Bulgaria and Romania, the growth contribution of net exports will be negative, at about –1 percentage point in all years covered by the projection.

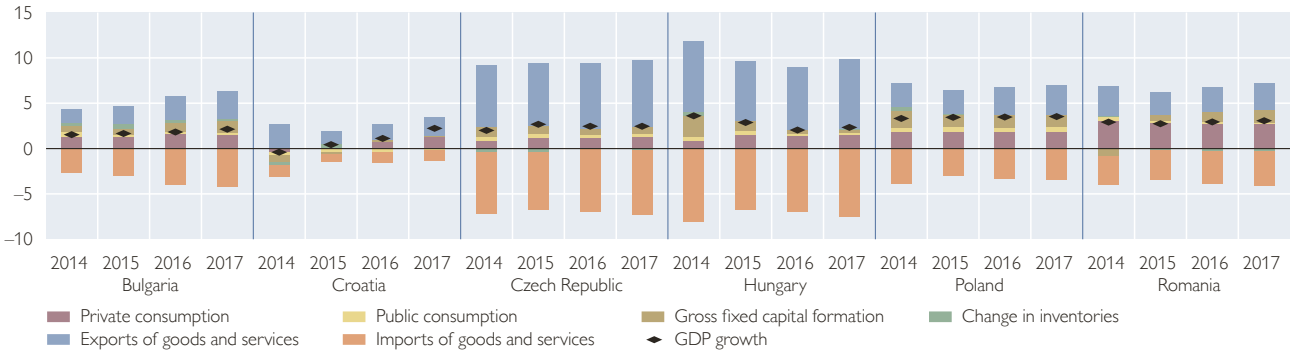
Risks to growth remain on the downside

The two major downward risks are linked to the recovery in the euro area (which constitutes a significant element of our baseline projection) and to the Russia-Ukraine conflict. Regarding the first risk, weaker than expected growth in the euro area – which may result from smaller or delayed effects of the ECB's quantitative easing measures, additional fiscal consolidation needs or even new sovereign debt market tensions – would dampen external demand and hence growth in the CESEE-6 region. A second downside risk stems from an escalation of the conflict in Eastern Ukraine. In February, a ceasefire was agreed in Minsk as a first step of a broader conflict settlement package. After a serious breach of the

Chart 1

**GDP and GDP components, projections for 2015 to 2016**

*Percentage points; GDP growth: year-on-year in %*




*Source: OeNB.*

ceasefire in the first days, fighting lessened noticeably but violations continued to be reported. In our baseline scenario, we assume these violations to become more seldom over time, so that the conflict would become frozen. Yet the risk of a further escalation remains elevated pending full implementation of the Minsk agreement. While the current situation has not shown a large negative impact on growth in the CESEE-6 region so far, a substantial widening of the conflict could have a major impact.

In contrast, we consider the downward risk emanating from monetary policy tightening in the U.S.A. to be rather contained for the CESEE-6 countries given moderate previous capital inflows during the period of loose U.S. monetary policy, rather sound fundamentals compared to other emerging countries and simultaneous quantitative easing by the ECB, which would remain the dominant factor in shaping the external environment. Risks arising from unexpected oil price developments are broadly balanced.

Overall, upside risks to growth in the CESEE-6 countries are small and relate to a stronger than projected recovery in the euro area that might materialize thanks to structural reforms and the effects of the European Commission's investment plan for Europe. The full implementation of the Minsk agreement and the subsequent lifting of sanctions against Russia before the end of the forecast horizon would also push growth beyond our baseline projection through increased exports, predominantly for Poland. However, this is unlikely to happen soon in our view, as many obstacles remain.

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

Bulgaria: gradual revival of domestic demand, yet no economic takeoff

While Bulgaria managed to avoid a pronounced slowdown in economic activity despite last year's failure of Corporate Commercial Bank (CCB) – one of the largest domestically owned banks – there are no signs of a significant acceleration of growth beyond 2% until 2017. In 2014, domestic demand reemerged as a positive growth driver, while net exports contributed negatively. We expect this pattern to persist over the whole forecast horizon.

The clarification of CCB's status and the repayment of insured deposits starting in December 2014 strengthened economic confidence, with both private and public consumption gaining momentum in the second half of 2014. At the same time, the labor market has continued to stabilize on the back of declining unemployment and rising employment rates. Moreover, a marked improvement in capacity utilization is indicative of a turning investment cycle. Based on these recent developments, we expect that domestic demand will steadily gain pace and gradually push GDP growth from 1.6% in 2015 to slightly above 2% in 2017. The only exception is public consumption, which is expected to widen only modestly in the near future, given that the leeway for fiscal easing has shrunk as a result of the government's CCB-related interventions in 2014. Instead, fiscal prudence will be required to bring the budget deficit back below the domestic target of 2% of GDP and to rebuild fiscal buffers.

A stronger takeoff of domestic demand during the forecast horizon is currently not a realistic scenario given that the Bulgarian economy is potentially constrained by deflation and political uncertainty. Declining energy prices have been the main reason for consumer price deflation in Bulgaria since August 2013. Although electricity tariffs were raised in the second half of 2014, the marked decline in international oil prices in 2014 will most likely result in continuing deflation this year.

In line with our external assumptions, we expect exports to accelerate gradually over the forecast horizon. Monetary easing in the euro area and the resulting depreciation of Bulgaria's anchor currency should stimulate exports. Yet import growth will most probably outpace export growth, reflecting resurging domestic demand and only moderate FDI inflows in recent years.

Croatia: slow recovery, domestic demand to pick up from 2016 onward

After six years of recession, we expect 2015 to finally mark the turning point for the Croatian economy, with slight GDP growth at 0.4%. Private consumption will stagnate despite the stimulus stemming from the income tax reform, as it continues to be held back by weak labor market conditions and high household indebtedness. In line with ongoing consolidation efforts under the excessive deficit procedure public consumption will pose the largest drag on growth; however, some fiscal slippage may occur in the second half of 2015 in light of the upcoming parliamentary elections (due in February 2016 at the latest). No recovery is expected for investments, but their negative impact on growth should be eased by positive stock changes after three years of destocking. The only positive contribution will stem from net exports, as the recovery of the euro area will boost exports and imports will still be subdued due to stagnant private consumption.

For 2016, we expect a broader recovery with a growth rate of 1.1% due to rebounding domestic demand and another year of positive stimulus from net exports. Private consumption should finally recover on the back of improving labor market conditions and higher credit growth. Public consumption, however, will still be constrained by consolidation efforts. Given improved utilization of EU funds, we expect investment growth to turn positive for the first time since 2008. Looking ahead, we forecast an acceleration of growth to 2.2% for 2017 as domestic demand will strengthen further, driven by higher private consumption and investments and easing public consolidation pressures. Although imports will pick up in line with domestic demand, we expect a positive contribution of net exports due to an ongoing rise in external demand.

This country forecast is subject to some additional downside risks beyond those affecting the CESEE-6 region as a whole. The impact of austerity measures could be stronger than anticipated and drag public consumption down more strongly than expected. Also, the pickup in investments from 2016 onward could be hampered if problems in utilizing the EU funds occur (e.g. because of domestic cofinancing constraints).

Czech Republic: settling on a broad-based growth path

For the Czech Republic, we forecast GDP to grow by 2.7% in 2015, followed by slightly lower growth rates of around 2.5% in both 2016 and 2017. The somewhat stronger performance in 2015 is based on external developments, most notably the low level of the oil price, which is expected to boost GDP growth by an additional 0.2% in 2015. Again, we expect domestic demand to be the main driver of economic growth, with its contribution rising from around 2% in 2015 to almost 3% in 2017.

Government consumption is expected to increase by 2.2% in 2015, based on the pro-growth fiscal policy mix of the new government, and to fall to slightly lower levels in 2016 and 2017. Meanwhile, private consumption is projected to rise by 2.5% in 2015 to around 2.7% in 2017. This slight upward trend is based on tax cuts, increasingly supportive labor market conditions, comparatively low energy prices and moderate real wage growth. Higher capacity utilization and increasing foreign direct investment inflows will support investment activities. Gross fixed capital formation will expand by more than 3% in 2015 and more moderately in 2016 and 2017. This is again supportive of our view that the current recovery might be broadly based as it is driven by a sustained increase in private consumption and investments rather than a single growth driver.

Recently, low commodity prices have exhibited downward pressure on inflation, urging the Czech National Bank (CNB) to extend its exchange rate interventions to the end of 2016. In addition, the CNB communicated that it might move the exchange rate commitment to a weaker level to avoid a slump in domestic demand, if necessary. Assuming that the CNB will keep the exchange rate cap at the current level in view of recent inflation figures, this translates into export growth rates of around 8.5% in 2015 and 2016, which are expected to recede somewhat to 8% in 2017. The positive development in exports is mainly supported by positive trends in traditional export markets and products, most notably the automotive industry.

Hungary: currently strong but decelerating growth

Following a strong expansion by 3.6% year on year in 2014, we expect GDP growth in Hungary to decelerate to around 3% in 2015. The major factor behind the slowdown of growth should be a substantially smaller expansion of investment activity than in 2014. Investment activity is expected to continue to benefit from the following factors: the low interest rate environment, rising and relatively high capacity utilization rates in industry, improved business sentiment, the extension of the central bank's Funding for Growth Scheme (FGS) along with the launch of an additional scheme (FGS+) under which the central bank not only provides liquidity but also temporarily assumes part of the credit losses of banks, thus substantially broadening the base of potential borrowers. However, considering the high level of investment activity in 2014, which was also promoted by residual EU funds from the 2007–2013 programming period, we expect a marked deceleration in investment growth in 2015. Assuming that the FGS schemes will end by

mid-2016, we expect a further slowdown in 2016–2017, albeit with an upside forecast risk, as nonsubsidized bank lending might have picked up by that time.

We expect private consumption to receive a boost in 2015 from the reduction of households' debt service payments and debt burden following the settlement of foreign currency loan contracts (i.e. retroactive compensation by banks for exchange rate margins on foreign currency loans and for unilateral hikes in interest rates and fees) and their conversion into forint loans. Consumption growth is expected to decelerate somewhat in 2016 as this one-off factor tapers out. Nevertheless, solid real wage growth, employment gains and the improved financial position of households should keep consumption growth at close to 3% in 2016–2017. Public consumption growth will continue to be determined by the government's intention to keep the budget deficit below 3% and state debt on a decreasing path. Consequently, public consumption growth will lag overall GDP growth by a considerable margin.

We expect the contribution of net real exports to remain small over the whole forecast horizon. Exports are projected to expand by 7% to 7.4% annually, which should slightly be exceeded by import growth on the back of strong domestic demand. As the latter slows down by 2017, we expect the contribution to turn from slightly negative to slightly positive.

Poland: growth robust to geopolitical tensions

In Poland, economic growth will accelerate slightly to 3.4% in 2015, after 3.3% in 2014. The dampening effect on exports arising from the Russia-Ukraine conflict coupled with a recession in both countries will be partly offset by higher growth in the euro area and, in particular, higher German import growth. Thus, we forecast export growth for 2015 as a whole to fall only slightly short of last year's robust rate of expansion. Corporate fixed investment growth, which enjoyed a strong, nearly double-digit rebound effect last year after stagnating in 2013 and contracting in 2012, will suffer from this base effect, the temporary dampening of export growth and the instability of foreign demand coupled with uncertainty related to the Russian-Ukrainian crisis. Although investment will thus consist mainly in replacement and renovation, its growth will be supported by recently strengthened private consumption demand and the favorable financing situation. The latter results from a strong liquidity position of the corporate sector, easing supply-side constraints and disbursements of EU funds under the 2007–2013 financial framework still available in 2015. The latter factor will also underpin public investment. A higher number of building permits and starts of dwellings – which are likely to have been enhanced by a targeted government program – signals a further acceleration of housing investment. Total fixed investment growth will decelerate to the still robust rate of 6.8%. Private consumption growth will continue at a stable solid rate, as households' disposable income will rise: The improved position and substantial profitability of the corporate sector will underpin further wage and employment growth, while the increase of social benefits for low-income households achieved by adjusting both the pension indexation scheme and tax deductions for families with children will further enhance disposable incomes. While deflation will increase real income additionally, it may motivate some households to postpone larger consumption purchases. Public consumption growth will be contained by the continued partial freeze of public wages to advance fiscal consolidation. Overall, while exports remain the single most important component of total final demand growth, the contribution of total domestic

demand will remain larger than that of exports. As a result of lower investment growth and due to the fact that the demand for imported intermediate products is usually higher in the initial stages of recovery (like in 2014), we forecast import growth to clearly decelerate in 2015, but to remain robust and to still outpace export growth. This will translate into a less negative contribution of net exports to GDP growth in 2015 than in the previous year.

In 2016, we forecast GDP growth to accelerate moderately to 3.5%, driven by a higher contribution of export growth, which will materialize thanks to stronger foreign (in particular German) demand and despite probable currency appreciation. By contrast, the contribution of total domestic demand will slightly decline, as we expect lower fixed investment growth (in particular due to a drop of public investment after the window for disbursements under the EU 2007–2013 financial framework will have closed) and lower public consumption growth (assuming renewed efforts directed at countercyclical fiscal consolidation after the elections in 2015). As a result of higher export growth, import growth will accelerate as well, but – given the slightly weaker expansion of domestic demand – to a lesser extent than exports. Still, the contribution of net exports to GDP growth will remain marginally negative.

Romania: strengthening domestic demand keeps growth at around 3%

Following a weak performance in the first half of 2014, Romania's GDP growth surprised on the upside thereafter, bringing full-year growth to 2.8%. In the period 2015–2017, we expect GDP growth to remain at about 3% with a rising tendency (from 2.7% in 2015 to 3.1% in 2017). The decline in oil prices and the recession in Russia only have a marginal impact on the Romanian economy. Fiscal adjustment is largely completed, as the European Commission projects the structural budget deficit to decline by only 0.1% in 2015 before increasing by the same extent in 2016.

As regards private consumption, Romania's sound export performance in recent years already translated into considerable private sector wage growth (in nominal and real terms). A further increase of the minimum wage in January 2015 affecting approximately 20% of employees already gave a further boost to real disposable income and will support private consumption. Moreover, the unemployment rate trended downward and consumer confidence improved markedly. We also see room for a recovery of private and public GFCF over the forecast horizon for the following reasons: improving economic sentiment, a higher degree of macroeconomic stability (e.g. due to low inflation and small fiscal and current account deficits), lower borrowing costs, tax changes already implemented (e.g. tax exemption for reinvested profits), higher spending on public investments budgeted for 2015, as well as ongoing efforts to improve the absorption of EU funds.

Exports are forecast to maintain their positive momentum in line with our external assumptions. Yet, weak (and most recently negative) GFCF growth and low FDI inflows in recent years have constrained the buildup of additional export capacities. Therefore, export growth rates will turn out somewhat lower than in 2013 and 2014. As recovering domestic demand will increase import demand, net exports will contribute negatively to overall growth.

### 3 Russia: recession and sharp import contraction

The decline of Russian export prices caused by the plunge in oil prices in late 2014 pushed the country's economic growth into negative territory: In the first months of 2015, GDP started to contract (even year on year). Without transient factors – such as a strong uptick in defense spending and consumers rushing to spend rubles as the currency's value dropped – the economy would have contracted already in 2014.

For 2015, we forecast Russian GDP to decline by 4.4%. As global economic growth and trade will pick up and oil prices are projected to rise again, the Russian economy will show a better performance in 2016 but continue on a slight downward trend (–1.8%), before slowly recovering in 2017 (+0.5%).

This forecast assumes oil prices to average at slightly over 55 USD/barrel in 2015, i.e. almost 45 USD/barrel below the 2014 average, before they will rebound to about 65 USD/barrel in 2016–2017 on average. The impact of the adjustment is profound, since energy exports account for almost one-fifth of Russia's GDP. Moreover, the Ukraine crisis, sanctions, countersanctions and control measures imposed by the authorities on business and trade have increased uncertainty about Russia. The sanctions are assumed to remain unchanged and the geopolitical tensions to persist for a rather long period. Fiscal policy is expected to remain relatively tight: In contrast to the crisis of 2008/09, government spending is set to decline in real terms.

High uncertainty undermines private investment

Given these factors, high uncertainty (including possibilities for fresh sanctions) will continue to undermine private investment in 2015 and 2016. The relatively high interest rates will probably also put a strain on business prospects. Investments of state enterprises – campaigns to boost them have been toned down by the authorities – and large projects financed by the state and state-owned banks are likely to generate only a relatively modest impact. Public funding has been diverted to support corporate efforts to repay foreign debt. As the recession hits, firms will also cut inventories further. The drop of capital formation is expected to flatten toward the end of the forecast period. Private consumption will be held back by rapid, though gradually slowing inflation. Thus, consumption will decrease markedly in 2015, and also slightly in 2016. Given slim growth prospects for wages and pensions, it will take time for private consumption to recover. Public consumption will remain constrained amid pressures on state finances. In December 2014, President Putin called for reducing federal budget expenditure in 2015–2017 in real terms – except for defense and internal security spending.

Russian imports are expected to shrink by one-fifth following the acceleration of the fall of the ruble in late 2014 and given the country's expected economic contraction in 2015 as well as the loss of export proceeds triggered by the oil price setback. The import decline will level off after 2015 as the economic contraction eases and the ruble's real exchange rate strengthens again, since inflation will likely remain much higher in Russia than in its trading partner countries. In the absence of new shocks that would fuel capital outflows, the Russian currency's nominal exchange rate is expected to remain fairly stable. After 2016, imports are likely to rebound somewhat on the back of recovering export income. While exports will benefit from the upswing of world trade and the moderate rise of oil prices, they are likely to expand very slowly for structural reasons. Over the

longer term, given the persistently rough business climate and the dismal outlook for private investment, the foundations of economic growth appear to be eroding.

Risks to the Russia forecast are high and mostly on the downside

The risks to this forecast relate particularly to elevated uncertainties about both internal and external factors. One major external risk factor is a lower or higher oil price than assumed in our baseline scenario. In any case, such unexpected price changes would have immediate substantial effects on the ruble, export income, state revenues and import spending. Further, a long-lasting solution to the Ukraine conflict poses a considerable upside risk to our Russia forecast, but we attach a very low probability to this risk. In contrast, an intensification of the Ukraine crisis or additional sanctions against Russia would further weaken corporate incentives to invest.

With respect to internal factors, domestic policies might cause business sentiment to deteriorate beyond expectations; ongoing capital flight could lead to a further depreciation of the ruble and increased inflation, curbing consumption and imports beyond expectations. On the upside, rather than containing investment and consumption, domestic policies – in particular fiscal policy – could turn out to be more supportive in the short run than envisaged in our baseline scenario.

# Studies

# Bridging the information gap: small-scale nowcasting models of GDP growth for selected CESEE countries

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*In this article, we describe short-term forecasting models of economic activity for seven countries in Central, Eastern and Southeastern Europe (CESEE) and compare their forecasting performance since the outbreak of the Great Recession. To build these models, we use four variants of bridge equations and a dynamic factor model for each country. Given the differences in availability of monthly indicators across countries and the rather short time period over which these indicators are available, we favor small-scale forecasting models. We selected monthly indicators on the basis of expert judgment, correlation analysis and Bayesian model averaging techniques. While our models generally outperform a purely time series-based forecast for all CESEE countries, there is no single technique that consistently produces the best out-of-sample forecast. To maximize forecasting accuracy, we therefore recommend selecting a country-specific modeling approach for every CESEE economy on the basis of out-of-sample forecasting performance.*

*JEL classification: C52, C53, E37*
*Keywords: nowcasting, bridge equations, dynamic factor models, Bayesian model averaging, Central, Eastern and Southeastern Europe*

Timely information of high quality about of economic activity is a key ingredient of economic policy decisions. However, national accounts data are subject to rather long publication lags,[2] compelling macroeconomic forecasters to work with estimates of the current stance and the recent past of the economy. Nowcasting models seek to fill this information gap by using indicators that are available at a higher frequency and with a much lower publication lag than national accounts data or no lag at all. Banbura at al. (2010) define nowcasting as "the prediction of the present, the very near future and the very recent past." Such models often make use of large data sets and different publication frequencies to predict economic activity. In general, a model-based approach to nowcasting makes it possible to asses which monthly indicators contain valuable information for the estimation of past, current and future real GDP. Beyond improving the accuracy of predicting real GDP growth, such an approach can also improve the identification of business cycle turning points.

A systematic approach to nowcasting has been pioneered by researchers from central banks like the Philadelphia Federal Reserve Bank, the ECB, the Deutsche Bundesbank, the Bank of England and the Banca d'Italia (see Aruoba et al., 2009; Baffigi et al., 2004; Banbura et al., 2010; Giannone et al., 2008; Kuzin et al., 2011; Rünstler and Sédillot, 2003). Typical high-frequency indicators that are used to predict GDP growth in such models have a monthly frequency and include

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[2] *In the EU, a first or so-called flash estimate of real GDP is usually released six weeks after the end of the reference period. A second estimate of real GDP and its demand components is published with an 11-week lag.*

hard data (such as industrial production indices, turnover or sales data for different sectors of the economy, export figures, price and labor market indicators) as well as soft data from business or consumer surveys (such as the Economic Sentiment Indicator (ESI) of the EU Directorate General for Economic and Financial Affairs, the Purchasing Managers' Index Markit PMI or order books). Most of the studies mentioned also use financial data, such as exchange rates, interest rates or stock indices available at a daily or higher frequency.

To date, numerous models have been developed to nowcast the GDP growth of the euro area or of large euro area countries. Much less attention has been devoted to countries in Central, Eastern and Southeastern Europe (CESEE). While nowcasting models exist for most of the countries,[3] hardly any study systematically covers CESEE countries as a region. One exception is Ohnsorge and Korniyenko (2011), who develop a set of statistical models for Eastern European and Central Asian countries. The authors compare a range of different models (i.e. bridge equations, a generalized dynamic factor model, a Bayesian vector auto-regressive model) and expert-based forecasts over a forecast horizon of approximately one to one-and-a-half years, thus focusing on short- to medium-term forecasts. They conclude that model performance varies with data availability, with time series length and with the forecast horizon. Furthermore, they stress the importance of expert judgment for model calibration and the importance of external assumptions.

This article estimates a suite of models with a very short-term horizon for selected CESEE countries: Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia. We are interested not only in forecasts, but also in obtaining accurate backcasts and nowcasts of quarterly real GDP growth. We compare the forecasting performance of different bridge equations and a small dynamic factor model with that of a simple autoregressive process for real GDP growth (our benchmark model) for the period since the Great Recession, which has been marked by heightened volatility of economic activity.

This article is structured as follows: Section 1 describes competing methodologies and discusses our model choice. In section 2, we present the data sample and our methods to identify high-frequency indicators with good forecasting performance or leading properties, or both. Section 3 evaluates the forecasting accuracy obtained by each model against the preferred benchmark. Section 4 concludes.

## 1 Model choice: small versus large – bridge versus factor models

Baffigi et al. (2004) classify nowcasting models into two types: models that translate the information content of short-term indicators to the lower frequency variables of interest, and models that extract reliable signals from all available higher-frequency indicators with the help of complex methods.

The first type of model tries to "bridge" the information gap by combining the dynamic properties of the lower-frequency national accounts time series with higher-frequency indicators. These are so-called "bridge equation" models (see

[3] *For instance, Arnoštová et al. (2011), Benkovskis (2008), Białowolski et al. (2014), Franta et al. (2014), Krajewski (2009), Rogleva (2011), Rusnák (2013) and Rünstler et al. (2009) develop large-scale factor models to nowcast economic activity for individual CESEE countries.*

Baffigi et al., 2004; Rünstler et al., 2009; Trehan, 1989, 1992). In these models, economic activity is predicted by monthly indicators that are converted into quarterly data before use.

For the second type of model, timing properties are important, i.e. whether an indicator is leading, coincident or lagging. The higher frequency of the relevant time series is used to detect business cycle turning points early on. The following models can be subsumed in this category: principal component models, which make use of static factors (see Stock and Watson, 2002, and Giannone et al., 2008), and dynamic factor models, which take account of the dynamics by modeling the extracted static factor by a VAR model in a second step (see Doz et al., 2011; Bai and Ng, 2002, 2007) or more generally by taking into account dynamic correlations directly in the estimation (see Forni et al., 2000, 2004, 2005). The factor MIDAS (Mixed Data Sampling) models combine data at different frequencies using a differentiated weighting scheme.

All models of the second type have some common features. First, they condition the forecasts on a large set of indicators; second, they often involve estimation in two or more steps; and third, they make use of technically demanding methods. However, Camacho and Perez-Quiros (2010) show that more indicators do not necessarily increase forecast accuracy. They propose a small dynamic factor model that takes the form of a state-space model on monthly frequency estimated by a Kalman filter. Foroni et al. (2015) also propose a variant of a factor MIDAS model, an unrestricted MIDAS (U-MIDAS) model, which works with a limited number of indicators.

### 1.1 Bridge equations

Bridge equation models use statistical correlations between higher-frequency indicators and quarterly real GDP. This type of model was first developed by Trehan (1989, 1992). In the first step, missing monthly observations of the higher frequency indicators $x_{it}$ *(i=1,...,k)* within the most recent quarter are extrapolated by simple means or with the help of a simple autoregressive model to deal with the ragged edges problem:

$$x_{it} = \sum_{s=1}^{p_i} \rho_{is} x_{it-s} + u_{it}, \; u_{it} \sim N(0, \sigma_u) \tag{1}$$

After transforming $x_{it}$ into quarterly frequency $(x_{it}^Q)$, in a second step, the short-term indicators are used as explanatory variables in an ordinary least squares (OLS) model to predict quarterly real GDP $(y_t^Q)$:

$$y_t^Q = \mu + \rho y_{t-1}^Q + \sum_{i=1}^{k} \sum_{s=-q_i}^{q_i} \beta_{is} x_{i\,t-s}^Q + \varepsilon_{it}^Q, \; \varepsilon_{it}^Q \sim N(0, \sigma_\varepsilon) \tag{2}$$

These bridge equations are entirely driven by the statistical correlation structure – including lags and leads of explanatory variables – between the monthly indicators and quarterly real GDP. Further, it is customary to include an autoregressive term (see, for example, Schumacher, 2014).

Since different monthly indicators reflect various aspects of the economy, a variant of this approach – so-called "demand-side" bridge equations – aims at forecasting the respective demand components of real GDP separately and in turn

aggregates those predictions to obtain real GDP. In the same vein, "supply-side" bridge models forecast value added by the respective sectors. Finally, under the "direct approach," bridge equations are used to directly forecast real GDP. This is the approach we follow in this article.

Bridge equations are very general and comprise a rather large set of models. Most authors find that bridge equations often show a better forecasting accuracy than univariate or naive models. Another advantage is that bridge equations rely on simple estimation techniques. A drawback is that forecasts of monthly indicators may propagate shocks that are specific only to this indicator. Hence, the forecasting ability of bridge equations seems to rely on picking the "right" higher-frequency indicators conditional on the forecast horizon.[4]

### 1.2 Small dynamic factor models

Dynamic factor models (DFMs) provide an algorithm that uses all available short-term information to forecast real GDP in a transparent and replicable way. These models usually rely on the asymptotical properties and weak orthogonality of idiosyncratic components. They are able to extract a signal from a large set of indicators even when these indicators represent subsets of a common class (i.e. turnover in different activities, sentiment of different agents) and are thus highly correlated. Nevertheless, in practice, DFMs based on large indicator sets do not necessarily perform better than "small" DFMs. This inability of large-scale DFMs to filter out all noise introduced by putting in all available indicators may be related to a breakdown of the theoretical assumptions on which they are based: Time series have to tend to infinity in terms of number and length, idiosyncratic components must be weakly correlated, and the variability of the common component needs to be large. Given that in our country sample, we work with rather short and – compared to data on the euro area or the U.S.A. – only a limited number of available time series, we opt for a small DFM (see Mariano and Murasawa, 2003; Aruoba et al., 2009; Camacho and Perez-Quiros, 2010, 2011; for applications of small DFMs).[5]

In general, DFMs assume that comovements among macroeconomic variables have a common element that can be extracted and used for forecasting. The model is cast in a state-space form on monthly frequency, where real GDP is observed only in one month of each quarter and is treated as unobserved in the remaining two months. A typical small DFM is specified on the monthly frequency as follows:

$$x_{it} = \alpha_i f_{t+K_i} + \eta_{it} \tag{3}$$

$$y_t = \gamma f_t + \omega_t \tag{4}$$

$$f_t = \varphi f_{t-1} + e_t. \tag{5}$$

[4] *Hahn and Skudelny (2008) show that forecasting performance can be improved if different bridge equations are used over the forecast cycle: Depending on the month within a given quarter and the corresponding availability of different higher-frequency indicators, the explanatory power of different indicators could vary.*

[5] *Also, Bai and Ng (2008) show that careful variable selection (corresponding to a reduction on model size by zero loads on variables in large-scale models) can improve model performance.*

Each time series is decomposed into two orthogonal components: an unobserved common factor $(f_t)$ and the idiosyncratic behavior of each series ($\eta_{it}$ and $w_t$ in equations (3) and (4)). The common factor $(f_t)$ of the monthly indicators $(x_{it})$ and GDP $(y_t)$ is treated as a latent variable and is estimated by Kalman filter.[6,7] Note that $y_t$ is observed only in the last months of each quarter and that we interpolate the first two months using a cubic polynomial.[8]

Our approach differs from the rest of the small DFM literature in three minor respects. First, we use three-month growth rates in equation (3) instead of monthly growth rates. This makes the otherwise rather volatile $x_{it}$ indicators somewhat smoother. Second, our variable transformation allows for a simpler specification of equation (4). In the literature, a decomposition introduced by Mariano and Murasawa (2003) is typically assumed. This means linking the quarterly growth rates of $y_t$ to the weighted average of monthly $f_t$ and its four lags. In other words, by using three-month growth rates of $x_{it}$, we can drop the lagged values of $f_t$ in (4). Third, our setup differs from the standard approach in the manual selection of lags and leads, $K_i$, in equation (3). We do this based on correlations between $x_{it+Ki}$ and $y_t$.

The main advantage of small DFMs as opposed to their large-scale counterparts lies in a convenient one-step estimation procedure: The unobserved factor $f_t$, the missing values of $x_{it}$ and $y_t$ and the parameters of the model ($\alpha_i$,$\gamma$ and $\varphi$) are estimated in a single step.[9] In contrast, large factor models with a large number of predictors are typically estimated in at least two steps. In the first step, the first few principal components are derived from the monthly series, which approximate the common factors. In the next step, the factors are linked to real GDP growth in a quarterly model. The advantage of large DFMs, however, can be attributed to their ability to condition the GDP forecast on virtually all available higher-frequency indicators.

## 2 Selection of indicators

The data used in this article are taken from eight large datasets compiled for CESEE countries and the euro area. The datasets comprise 90 series for each country (71 monthly and 19 quarterly indicators). The series include composite indicators as well as their components (i.e. total industrial production in addition to separate time series for production in mining, manufacturing, etc.). In addition, we consider three indicators of world prices as well as the German Ifo Business Climate Index and its two components, namely the assessment of the business situation and business expectations. See the annex for detailed information on the variables used in this article.

[6] *Note that different release dates of monthly indicators do not pose a problem here. Hence, the method can deal with ragged edges in the data while using all available information in the monthly series.*

[7] *All data entering the model were normalized to have a zero mean and unit variance. Following the related literature, the variance of $e_t$ was set to 0.1 so that the estimates can be identified. To further aid the identification and interpretability of the parameters, $\varphi$ was set to 0.9. This ensures that the variance of the factor $f_t$ is 1, like that of all the other variables in the model.*

[8] *Alternative approaches in the literature use random numbers, sample averages or a Kalman filter to interpolate $y_t$. Our time series is too short for using a Kalman filter to interpolate $y_t$.*

[9] *Note that the two-step and other iterative estimation procedures used in case of large DFMs are not directly applicable to small-scale DFMs, as those methods require a large set of indicators. Therefore we cannot compare the efficiency of the mentioned estimation procedures.*

Our analysis focuses on a relatively broad set of CESEE economies, but the availability of monthly indicators significantly differs across countries and over time. Therefore, rather than making use of the largest possible number of high-frequency indicators available, we build on the result obtained by Camacho and Perez-Quiros (2010) and opt for models based on a limited number of indicators. The selection of indicators depends on the type of forecasting model – we estimate four variants of bridge equations and a small DFM for each CESEE country. We describe the different approaches used to select the indicators for each model below.

### 2.1 Bridge equations with the "usual suspects"

Our first set of bridge equations works with high-frequency indicators. These could be used to forecast real GDP on their own, as they are potentially very informative with respect to economic activity. The indicators could be labeled the "usual suspects" and comprise the following: first, the Economic Sentiment Indicator (ESI) published by Eurostat in the last week of every month. The ESI index collects data on the perceptions and expectations of economic agents in four major economic sectors (industry, construction, retail trade and services) as well as consumers' expectations. We use the ESI in our first bridge equation. Our second bridge equation augments the autoregressive quarterly GDP model by the index of industrial production (IP), which measures changes in the volume of output in industry on a monthly basis. The third "usual suspects" model replaces the industrial production (IP) index by the subcomponent measuring changes in the volume of output in manufacturing (IP manuf). Eurostat publishes both IP indices with a six-week lag. Hence, this first set of bridge equations always uses one high-frequency indicator at a time.

### 2.2 Bayesian model averaging

To identify the variables with the greatest explanatory power for our fourth bridge equation, we conducted a Bayesian Model Averaging (BMA) exercise. This exercise allowed us to take advantage of the relatively large set of potential explanatory variables in our dataset, including country-specific, euro area-wide and world price indicators as well as the Ifo Business Climate Index for Germany. We excluded indicators that are almost perfectly correlated among each other and included a lag of the dependent variable.[10] This implies approximately 1.6e^32 different models per country that can potentially yield good nowcasts for real GDP growth. The challenge is to select the models that yield the best forecasts, accounting for interdependence among the variables. The BMA is a natural choice to sort through the model space.

We apply two variants of BMA. First, in a standard BMA framework, the models are evaluated based on the underlying *marginal likelihood*. Under a certain prior structure – and to provide more intuition – this boils down to evaluating the models based on the Bayesian information criterion (BIC). The recorded BIC values are then normalized to yield weights (posterior model probabilities, PMPs)

[10] *We tested the data for a unit root by means of an augmented Dickey-Fuller test. Variables that show a unit root behavior (tested at the 10% significance level) were transformed by taking first differences. In general, all variables with a strictly positive support are in logarithmic transform.*

that sum up to 1.[11] Second, we follow Eklund and Karlsson (2007) and Feldkircher (2012) and use the *predictive likelihood* instead of the marginal likelihood to gauge the performance of the different candidate models.[12] For that purpose, we have to split our data into an estimation and an evaluation (holdout) sample. It can be shown that it is important to reserve a large portion of the dataset for the holdout rather than the estimation window (Feldkircher, 2012; Laud and Ibrahim, 1995). Accordingly, we reserve 50% of our data for the estimation part and 50% for the evaluation part. Note that the predictive likelihood boils down to a single number when evaluated with realized data. The posterior inclusion probability (PIP) attached to a particular variable is simply the sum of the weights (weights based either on marginal likelihood or on predictive likelihood) of the models that contain the variable of interest.

To specify a bridge equation based on the BMA exercise, we follow Barbieri and Berger (2004) and select variables that have PIPs ≥ 0.5. These form the so-called "median" model, which can be shown to possess excellent forecasting properties (Barbieri and Berger, 2004; Feldkircher, 2012)[13]. The results for both BMA variants (based on marginal and predictive likelihood) are summarized in table 1, which reports the top five regressors per country under both BMA variants and their respective PIPs in parentheses.

[11] *Raftery (1995) provides an excellent introduction to the BMA framework, while Madigan and York (1995) offer a detailed description of the MC^3 algorithms that are needed to approximately evaluate the model space, since it is computationally not feasible to assess the full set of potential models.*

[12] *In addition and as a robustness check, we also used a BMA prior setup that accounts for multicollinearity of the regressors. More specifically, we used the tessellation sampler, which is of the class of "dilution" priors put forward in George (2010) and is applied to a growth dataset in Moser and Hofmarcher (2014).*

[13] *Alternatively, one could use the BMA-weighted coefficients to conduct the forecasts instead of singling out only the variables with PIPs ≥ 0.5. However, as shown theoretically in Barbieri and Berger (2004), the median model tends to dominate a forecast based on the full set of (weighted) coefficients.*

Table 1

## Posterior inclusion probabilities of the top five regressors

| | Marginal likelihood | | Predictive likelihood | |
|---|---|---|---|---|
| | Indicator | PIP | Indicator | PIP |
| **Bulgaria** | Production in total industry | 0.65 | Factors limiting building activity – insufficient demand | 0.94 |
| | Euro area – turnover in manufacturing, nondomestic market | 0.28 | Competitive position on foreign markets inside the EU over the past three months | 0.62 |
| | Unemployment rate | 0.26 | Euro area – new orders in recent months | 0.57 |
| | Production in manufacturing | 0.05 | Turnover in manufacturing, domestic market | 0.47 |
| | Factors limiting building activity – insufficient demand | 0.03 | Export expectations for the months ahead | 0.42 |
| **Czech Republic** | Euro area – unemployment rate | 0.89 | Euro area – turnover in manufacturing, nondomestic market | 0.67 |
| | Euro area – gross wages and salaries in industry | 0.66 | Euro area – production in manufacturing | 0.32 |
| | Euro area – production in mining and quarrying | 0.15 | Euro area – duration of production assured by current order books | 0.20 |
| | Real GDP | 0.09 | Euro area – production in total industry | 0.13 |
| | Euro area – turnover in manufacturing, nondomestic market | 0.08 | Euro area – current level of capacity utilization (%) | 0.11 |
| **Hungary** | Production in total industry | 0.99 | Production in total industry | 0.97 |
| | Real GDP | 0.84 | Retail sale employment expectations over the next three months | 0.66 |
| | Turnover in retail trade, except of motor vehicles and motorcycles | 0.08 | Factors limiting building activity – shortage of labor | 0.16 |
| | Assessment of the current level of stocks of finished products | 0.01 | Real GDP | 0.14 |
| | Production in manufacturing | 0.01 | Factors limiting building activity – weather conditions | 0.12 |
| **Poland** | Turnover in manufacturing, domestic market | 0.57 | Factors limiting building activity – weather conditions | 0.39 |
| | Production in total industry | 0.17 | Turnover in manufacturing, domestic market | 0.38 |
| | Turnover in manufacturing | 0.03 | Production in total industry | 0.33 |
| | Unemployment rate | 0.02 | Turnover in manufacturing | 0.21 |
| | Production in manufacturing | 0.01 | Intention to buy a car within the next 12 months | 0.20 |
| **Romania** | Euro area – turnover in manufacturing, nondomestic market | 0.53 | Euro area – turnover in manufacturing, nondomestic market | 0.48 |
| | Price expectations over the next three months in construction | 0.52 | HICP | 0.32 |
| | Euro area – production in manufacturing | 0.43 | Euro area – production in manufacturing | 0.31 |
| | Employment expectations over the next three months in construction | 0.20 | Consumers' financial situation over the last 12 months | 0.27 |
| | Building activity development over the past three months | 0.15 | Euro area – turnover in mining and quarrying, nondomestic market | 0.24 |
| **Slovenia** | Euro area – unemployment rate | 0.94 | Euro area – unemployment rate | 0.87 |
| | Unit labor costs, whole economy | 0.76 | Production in manufacturing | 0.50 |
| | Production in manufacturing | 0.68 | Turnover in retail trade, except of motor vehicles and motorcycles | 0.26 |
| | Households' unemployment expectations over the next 12 months | 0.10 | Euro area – production in manufacturing | 0.26 |
| | Turnover in manufacturing | 0.09 | Assessment of current production capacity in industry | 0.24 |
| **Slovakia** | Euro area – turnover in manufacturing, nondomestic market | 0.35 | Euro area – turnover in manufacturing, nondomestic market | 0.79 |
| | Turnover in retail trade, except of motor vehicles and motorcycles | 0.25 | ECB Commodity Price Index | 0.51 |
| | Euro area – production in manufacturing | 0.15 | Intention to buy a car within the next 12 months | 0.27 |
| | Euro area – turnover in retail trade, except of motor vehicles and motorcycles | 0.11 | Real GDP | 0.23 |
| | ECB Commodity Price Index | 0.08 | IFO Assessment of business situation | 0.18 |

*Source: Authors' calculations.*

The BMA exercises yielded very parsimonious models throughout the region. All models consist of only one to a maximum of three variables that have PIPs ≥ 0.5. Thus, the BMA framework yielded very decisive inference for a small set of variables, with the PIPs of the remaining variables being close to zero. In most countries, there is evidence of measures of industrial production or manufacturing turnover as good leading indicators. Also, for some countries – such as the Czech Republic, Slovakia, Slovenia and Romania – euro area indicators appear to be the most robust leading indicators of economic activity.

The empirical model specification for each CESEE country from this exercise can be read from table 1.[14] In what follows, we use the indicators identified by the BMA variant using the predictive likelihood, since these results are more robust against structural breaks and overfitting and this variant is explicitly designed for the purpose of forecasting (Eklund and Karlsson, 2007). With one exception, we used only indicators that reached PIPs ≥ 0.5 under predictive likelihood. Hence, the model for Bulgaria contains three indicators that are all measured by Eurostat's business and consumer surveys and released in the last week of the month or quarter: insufficient demand as a limiting factor to building activity (monthly frequency), competitive position on foreign markets inside the EU over the past three months (quarterly frequency), and euro area new orders in recent months (quarterly frequency). The model for the Czech Republic contains only one monthly indicator: euro area manufacturing turnover in the nondomestic market (six-week publication lag). The Hungarian bridge equation contains the monthly IP index (six-week publication lag) and monthly employment expectations over the next three months from business and consumer surveys (released in the last week of the month). For Poland, the highest PIP was 0.39. Therefore, we lowered the cutoff level to 0.3 for Poland and included manufacturing turnover in the domestic market (six-week publication lag), weather conditions as a limiting factor to building activity (released in the last week of the month), and the IP index. The Slovenian bridge equation uses the monthly unemployment rate of the euro area (five-week publication lag) and the IP index as explanatory variables. To nowcast Slovak real GDP growth, the BMA routine identified euro area manufacturing turnover in the nondomestic market and the ECB Commodity Price Index (one-week publication lag) as relevant monthly indicators. Finally, euro area manufacturing turnover in the nondomestic market is identified as the exogenous predictor in the bridge equation for Romanian real GDP growth.

### 2.3 Indicator selection for the small dynamic factor model

In selecting the number of indicators for the small DFM, all available monthly indicators were first transformed to quarterly frequency and their correlation with quarterly real GDP growth rates was calculated. In line with Camacho and Perez-Quiros (2010, 2011), we set the target number of indicators to below 10.

[14] *For both BMA variants, we employ a BMA setup similar in spirit to Fernández et al. (2001), which implies setting the hyperparameter g=K^2, with K denoting the total number of variables in our dataset. The prior on the model space follows a binomial beta distribution, implying a prior inclusion probability of ½ per regressor (Ley and Steel, 2009). All results are based on 1 million posterior draws. Moreover, note that the BMA exercise was based on just one horizon (a nowcast in the third month of a quarter). However, our forecasting results below suggest that the choice of horizon matters only marginally for predictive accuracy, whereas model performance differs rather strongly between countries.*

We first reduced the full set of available indicators to about 20 based on the following considerations: Our goal was to include variables that central banks generally follow and comment on in connection with real activity. This meant including both hard and soft indicators, as the latter have shorter publication lags. As most of the studied CESEE countries are small and open economies with strong trade links to the euro area and in particular to Germany, it seems natural to consider euro area or German indicators in addition to domestic ones. Among the domestic indicators, industrial production indices, exports, retail sales, the unemployment rate and economic sentiment indicators showed the highest correlation with real GDP growth.

A class of variables that was a priori excluded from the preselection was price data, as the structure of the DFM is too simple for it to differentiate between supply and demand shocks. We also disregarded financial variables for the DFM, such as exchange rates, interest rates or stock prices. The main reason was that these variables display increased volatility; moreover, their correlation with real activity in the CESEE economies is very limited.

The final set of variables for each country model is reported in table 2. The number of selected indicators ranged from six to eight for each country, depending on correlations (both contemporaneous and with leads) with GDP growth and the quality of the model's estimates on the full sample. Correlation analysis helped to choose between indicators of similar types, e.g. sales in industry versus sales in manufacturing, industry sales versus industry turnover, euro area PMI versus euro area ESI, or German industry turnover versus euro area industry turnover. To determine the quality of the estimates, we checked whether the coefficients were positive and below 1 and whether they were statistically significant. If these criteria did not give satisfactory answers, we excluded the variable from the model.

Table 2

**Correlations of monthly indicators and GDP growth**

| Indicator | Bulgaria | Czech Republic | Hungary | Poland | Romania | Slovakia | Slovenia |
|---|---|---|---|---|---|---|---|
| Economic Sentiment Indicator | **0.54** | **0.55** | 0.38 | **0.42** | **0.44** | **0.36** | **0.58** |
| Unemployment rate | –0.44 | **–0.59** | –0.45 | –0.48 | –0.27 | –0.45 | **–0.56** |
| Industrial production | **0.69** | **0.70** | **0.79** | 0.54 | 0.46 | 0.67 | **0.83** |
| Manufacturing production | 0.66 | 0.67 | 0.78 | **0.56** | 0.45 | 0.61 | 0.82 |
| Turnover in industry | 0.63 | 0.69 | 0.78 | 0.59 | **0.59** | **0.71** | 0.74 |
| Turnover in manufacturing | 0.63 | 0.68 | 0.78 | 0.58 | 0.59 | 0.71 | 0.74 |
| Retail sales | **0.67** | **0.56** | **0.60** | **0.55** | **0.61** | **0.63** | **0.68** |
| Export | **0.30** | **0.67** | **0.74** | **0.41** | **0.50** | **0.58** | **0.75** |
| Industrial production in the euro area | 0.63 | 0.75 | **0.69** | 0.41 | 0.64 | 0.70 | **0.78** |
| Manufacturing production in the euro area | 0.61 | **0.73** | 0.69 | 0.42 | 0.62 | 0.68 | 0.78 |
| Inustrial turnover in the euro area | **0.68** | 0.77 | 0.68 | 0.43 | **0.65** | 0.73 | 0.78 |
| Manufacturing turnover in the euro area | 0.68 | 0.76 | 0.68 | 0.43 | 0.65 | **0.74** | 0.78 |
| Economic Sentiment Indicator in the euro area | 0.58 | 0.76 | 0.61 | **0.62** | 0.56 | 0.49 | 0.80 |
| Purchasing Managers' Index | **0.57** | **0.77** | **0.62** | **0.56** | **0.53** | 0.51 | **0.79** |
| IFO expected German exports | **0.63** | **0.79** | **0.68** | **0.45** | **0.62** | **0.59** | **0.81** |

*Source: Authors' calculations.*

*Note: Figures in bold indicate the inclusion of the indicator in the small DFM model.*

## 3 Results: comparing forecast accuracy

In this section, we present the results of five competing nowcasting models for CESEE countries. We estimate three forecast horizons, i.e. one backcast (previous-quarter real GDP growth), one nowcast[15] (current-quarter real GDP growth) and one forecast (next-quarter real GDP growth) and produce three monthly forecasts per horizon. We drop the backcast in the third month, as previous-quarter real GDP growth has already been released at this time.

All models are estimated for the period from the first quarter of 2000 to the second quarter of 2008. Our evaluation period ranges from the third quarter of 2008 to the third quarter of 2014, covering the period since the Great Recession. Out-of-sample forecasting accuracy is measured by the root mean squared error (RMSE). Given the lack of real-time GDP data series for our sample of countries, we follow the usual practice and use the latest available GDP growth figures to calculate forecasting errors (i.e. we simulate so-called "quasi out-of-sample" forecasts). Hence, we ignore the impact of different data vintages on the results.

All bridge equations are specified with an autoregressive term for real GDP growth. We estimate three bridge equations with a single indicator (our "usual suspects" models) and one bridge equation in which the number and choice of indicators is determined by the BMA results using the predictive likelihood criterion. In the first three bridge equations, the selection of lags for the dependent variables (i.e. GDP growth) and independent variables (i.e. short-term indicators) was based on the goodness-of-fit and in-sample forecasting ability. In the fourth bridge equation, the BMA results determined the lag structure for the independent variables. For each model and each forecast horizon, we calculate the respective RMSE and compare it with the RMSE of our preferred benchmark model. The latter is a simple first-order autoregressive model, an AR(1) model, for quarterly real GDP growth.[16]

Chart 1 shows the ratio of the RMSE of our five models to the benchmark. For all countries and all horizons, we can identify at least one model with a lower RMSE than the benchmark. However, the type of model that outperforms the benchmark differs across countries. In other words, model performance is strongly dependent on the economy. In two countries – Hungary and Slovenia – our preferred model is a bridge equation based on the "usual suspects." More specifically, in those two countries, bridge equations based on industrial production – both for total industry and for manufacturing only – yield superior forecast accuracy compared to all other models, while the ESI-based bridge equation tops these two models only in one instance (first-month nowcast in Slovenia).

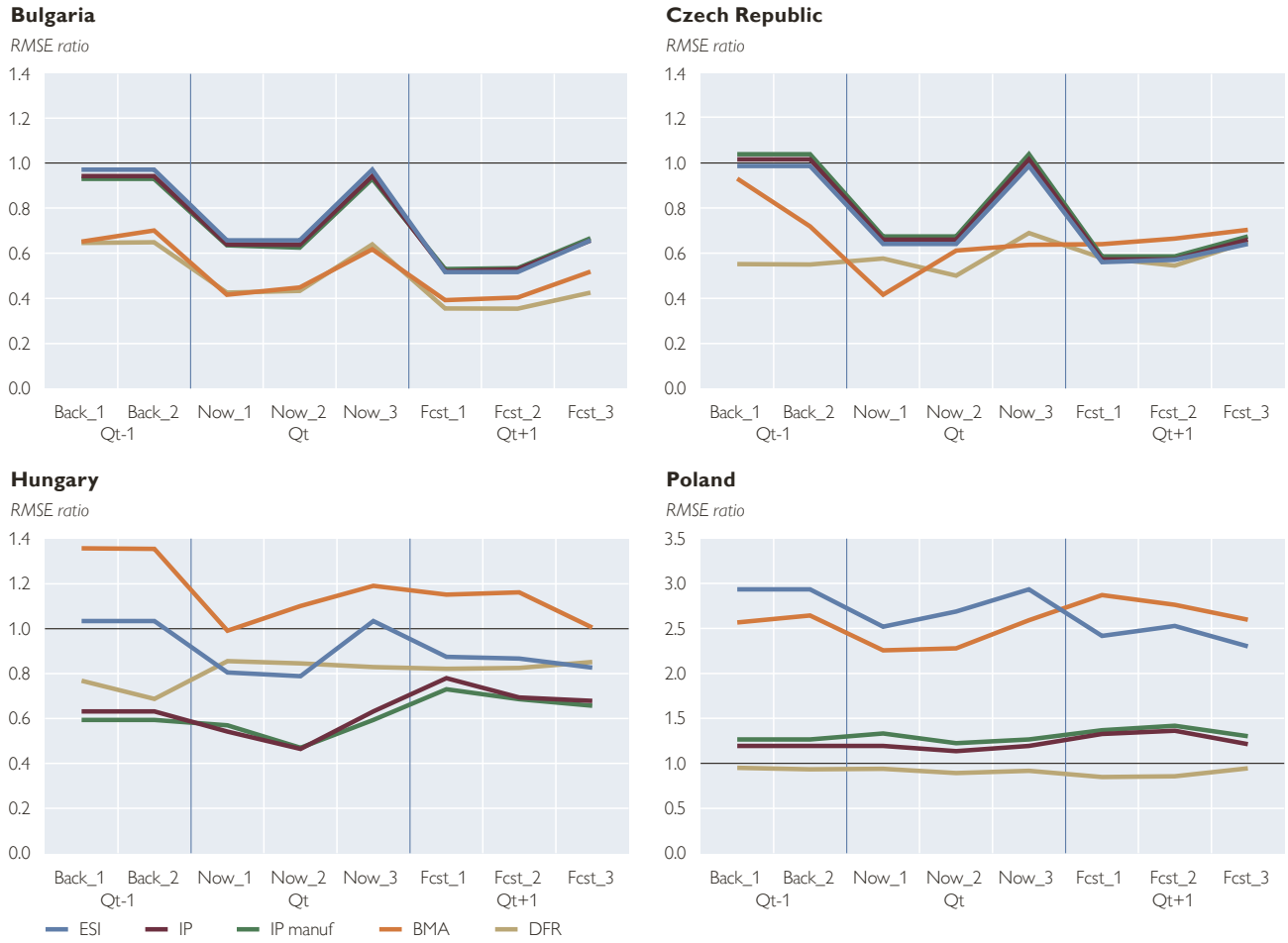
In Bulgaria and Romania, we observe a neck-and-neck race between the BMA-based bridge equation and the small DFM. Bulgaria is the only country where all models perform better than the benchmark, yet the BMA and small DFM are by far the most successful models. In particular, their performance is about equal for all three nowcasts. The DFM yields a slightly smaller forecasting error than the

[15] *Please note that in this section we define "nowcast" very strictly: In general, short-term forecasts encompassing model-based estimates of GDP for a horizon that ranges one quarter back and up to two quarters ahead are denoted as "nowcasts" in the literature. In this section, we use "nowcast" to define very precisely the model-based estimate of current quarter GDP growth (as opposed to an estimate of the previous or next quarter).*

[16] *The quality of the results is unchanged when we use a naive benchmark (i.e. a random walk model). These results are available on request.*

Chart 1

**Predictive accuracy of different nowcasting models relative to the AR(1) benchmark model**




*Source: Authors' calculations.*

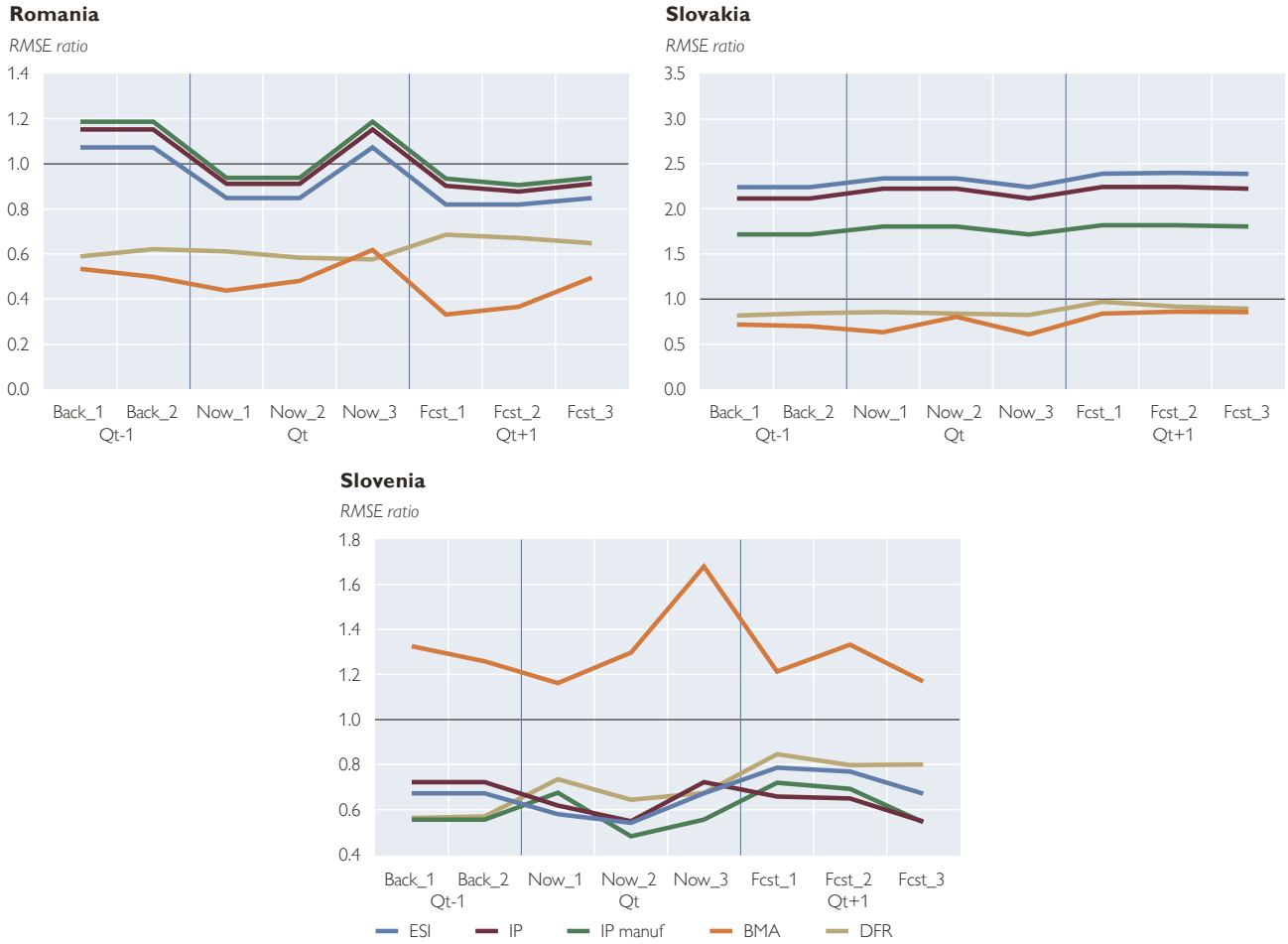
BMA for backcasts and forecasts. By contrast, in Romania, the BMA-based model clearly outperforms the small DFM except at one horizon (third-month nowcast). This model also shows the best forecasting performance at all horizons in Slovakia.

Poland is the only country where most models fail to yield more accurate forecasts than the benchmark. In fact, the small DFM is the only model that shows a slightly better forecasting performance than the AR(1) model, while the BMA-based and ESI-based bridge equations lead to a considerably worse forecasting performance. Their respective RMSEs are almost three times as large as the benchmark RMSE. This poor forecasting performance was to be expected for the BMA model; recall that Poland is the only country where none of the indicators attained a PIP ≥ 0.5 based on predictive likelihood and that we had to lower the threshold for inclusion to 0.3.[17]

[17] *Alternatively, we could have included indicators in the BMA-based bridge equation based on marginal likelihood. The resulting bridge equation for Poland would include turnover in manufacturing in the domestic market as the only high-frequency indicator and would thus be almost equal in terms of forecasting performance to the "usual suspects" bridge equation using manufacturing IP. While this bridge equation is considerably better than the predictive likelihood BMA-based bridge model, its forecasting performance is still lower than the benchmark*

Chart 1 continued

**Predictive accuracy of different nowcasting models relative to the AR(1) benchmark model**




*Source: Authors' calculations.*

The results for the Czech Republic are most difficult to classify. All five models can at least match or beat the benchmark; however, relative model performance varies strongly across forecast horizons. The small DFM model shows the best performance for backcasts as well as for all predictions made in the second month of a quarter. The BMA-based model outperforms all other models for first-month and third-month nowcasts and the ESI-based bridge model for same-month forecasts. However, the differences of RMSEs for forecasts between the "usual suspects" bridge equations and the small DFM are almost negligible.

It is interesting to note that relative model performance is not strongly driven by the forecast horizon – except in the Czech Republic. This is indicated by the rather constant ranking of models in terms of their relative RMSE. Table 3 lists the RMSEs of the best-performing models for each country. Absolute RMSEs are also rather constant across forecast horizons, in particular for the univariate bridge equations based on the "usual suspects." These forecasts are predominantly determined by the autoregressive term, which might explain the low variability of forecasts across different horizons.

Table 3

**RMSEs of the best-performing models by country, Q3 2008 to Q3 2014**

| | Backcast | | Nowcast | | | Forecast | | |
|---|---|---|---|---|---|---|---|---|
| | Month 1 | Month 2 | Month 1 | Month 2 | Month 3 | Month 1 | Month 2 | Month 3 |
| **Bulgaria** | | | | | | | | |
| BMA bridge | 1.55 | 1.67 | 1.46 | 1.58 | 1.47 | 1.76 | 1.81 | 1.83 |
| Small DFM | 1.54 | 1.55 | 1.50 | 1.53 | 1.53 | 1.59 | 1.59 | 1.50 |
| AR(1) | 2.39 | 2.39 | 3.52 | 3.52 | 2.39 | 4.48 | 4.48 | 3.52 |
| **Czech Republic** | | | | | | | | |
| ESI bridge | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.08 | 1.11 | 1.08 |
| BMA bridge | 1.02 | 0.78 | 0.70 | 1.03 | 0.70 | 1.24 | 1.29 | 1.18 |
| Small DFM | 0.60 | 0.60 | 0.97 | 0.84 | 0.75 | 1.12 | 1.06 | 1.09 |
| AR(1) | 1.09 | 1.09 | 1.68 | 1.68 | 1.09 | 1.94 | 1.94 | 1.68 |
| **Hungary** | | | | | | | | |
| IP bridge | 0.65 | 0.65 | 0.72 | 0.62 | 0.65 | 0.99 | 0.88 | 0.90 |
| IP manufacturing bridge | 0.61 | 0.61 | 0.76 | 0.62 | 0.61 | 0.93 | 0.87 | 0.87 |
| AR(1) | 1.02 | 1.02 | 1.33 | 1.33 | 1.02 | 1.27 | 1.27 | 1.33 |
| **Poland** | | | | | | | | |
| DFM | 0.56 | 0.55 | 0.58 | 0.55 | 0.54 | 0.47 | 0.48 | 0.59 |
| AR(1) | 0.59 | 0.59 | 0.62 | 0.62 | 0.59 | 0.56 | 0.56 | 0.62 |
| **Romania** | | | | | | | | |
| BMA bridge | 1.08 | 1.00 | 1.12 | 1.23 | 1.25 | 0.88 | 0.96 | 1.26 |
| DFM | 1.19 | 1.25 | 1.56 | 1.49 | 1.16 | 1.81 | 1.77 | 1.65 |
| AR(1) | 2.02 | 2.02 | 2.55 | 2.55 | 2.02 | 2.64 | 2.64 | 2.55 |
| **Slovakia** | | | | | | | | |
| BMA | 1.74 | 1.70 | 1.46 | 1.86 | 1.48 | 1.92 | 1.97 | 1.98 |
| AR(1) | 2.43 | 2.43 | 2.32 | 2.32 | 2.43 | 2.30 | 2.30 | 2.32 |
| **Slovenia** | | | | | | | | |
| IP bridge | 1.03 | 1.03 | 1.13 | 1.01 | 1.03 | 1.08 | 1.07 | 1.00 |
| IP manufacturing bridge | 0.79 | 0.79 | 1.24 | 0.88 | 0.79 | 1.18 | 1.13 | 1.00 |
| ESI bridge | 0.96 | 0.96 | 1.06 | 0.99 | 0.96 | 1.29 | 1.26 | 1.23 |
| AR(1) | 1.43 | 1.43 | 1.84 | 1.84 | 1.43 | 1.64 | 1.64 | 1.84 |

*Source: Authors' calculations.*

Taking a closer look at the definition of "horizon," we have to differentiate between two conceptually different horizons: The first horizon refers to whether we are looking at a backcast, nowcast or forecast; the second horizon depends on the month within a quarter in which the forecast is made. We would expect higher RMSEs for estimates produced in the first month and for forecasts. While we observe higher RMSEs for forecasts, the differences in RMSEs are rather small. More precisely, forecasts produce higher RMSEs for Hungary (all models), the benchmark model in the Czech Republic, Romania and Slovenia, for the BMA-based model in the Czech Republic and Slovakia and for the small DFM in Romania and Slovenia. Furthermore, differentiating between forecasts produced in individual months within a quarter yields even smaller differences in RMSEs. While the purely time series-based benchmark model tends to perform better in the third month when the information set is larger, this is not always true for the alternative models. We interpret this as the better ability of the alternative models to exploit information from high-frequency indicators early on, indicating a clear gain from the use of nowcasting models.

## 4 Conclusions

Obtaining an accurate picture of the current stance of economic activity remains at the center of conjunctural analysis, as timely information is a prerequisite for sound economic policy decisions. Given long publication lags for national accounts

data, a multitude of statistical methods and models has been developed to fill this information gap.

In this article, we compare the forecasting accuracy of two such model classes: bridge equations and small DFMs. We estimate four variants of bridge equations. The first three bridge equations are univariate models, including one prominent short-term indicator (ESI, IP and IP in manufacturing) at the time. Alternatively, we also specify a multivariate bridge equation where short-term indicators are included based on their predictive likelihood as derived from a BMA analysis. For the DFM estimates, we select indicators using correlation analysis.

As a first result, we find that small-scale nowcasting models have a clear advantage over purely time series-based real GDP growth estimates for our sample of seven CESEE countries, as we are always able to beat the AR(1) forecast with such models. This is an important finding, as we are measuring forecasting performance in volatile times when the practical need for accurate estimates of the current stance of economic activity is particularly high and forecasting errors can be large. Second, we observe that model performance varies strongly across countries. For Poland, the small DFM unambiguously yields the best forecasts, while for Slovakia, the BMA-based bridge equation produces the lowest forecasting error. For all other countries, the results are not as clear-cut, but the small DFM outperforms all other models for the majority of forecast horizons in the Czech Republic and Bulgaria, the BMA-based bridge equation produces better results for Romania, and the univariate bridge equations using industrial production (or industrial production in manufacturing) show a superior forecasting ability for Hungary and Slovenia. We conclude that one model type is clearly not fit for all countries.

Third, and in contrast to Hahn and Skudelny (2008), our findings suggest that for our sample of countries, model choice is not strongly influenced by the forecast horizon. The ranking of models remains relatively unchanged for most countries, and the differences in predictive accuracy remain small overall for different forecast horizons. One notable exception is the Czech Republic, where the performance of different nowcasting models differs greatly depending on the forecast horizon.

Hence, we conclude that to maximize forecast accuracy, the choice of a nowcasting model should vary by country. At the same time, a further differentiation of nowcasting models by the forecast horizon does not seem to be warranted for the seven CESEE economies that we have examined in this paper, as the additional gains in forecast accuracy are rather small for each model across different horizons.

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# Annex

Table A1

## List of short-term indicators

**Monthly indicators**

| Indicator | Seasonal adjustment | Source | Publication lag (weeks) | Frequency transformation |
|---|---|---|---|---|
| **Production in industry** | | | | |
| Industry total | swda | Eurostat | 6 | average |
| Mining and quarrying | swda | Eurostat | 6 | average |
| Manufacturing | swda | Eurostat | 6 | average |
| Electricity, gas, steam and air conditioning supply | swda | Eurostat | 6 | average |
| Water collection, treatment and supply | swda | Eurostat | 6 | average |
| **Turnover in industry** | | | | |
| Mining and quarrying | swda | Eurostat | 6 | average |
| Manufacturing | swda | Eurostat | 6 | average |
| **Turnover in industry, domestic market** | | | | |
| Mining and quarrying | swda | Eurostat | 6 | average |
| Manufacturing | swda | Eurostat | 6 | average |
| **Turnover in industry, nondomestic market** | | | | |
| Mining and quarrying | swda | Eurostat | 6 | average |
| Manufacturing | swda | Eurostat | 6 | average |
| **Production in construction** | | | | |
| Production in construction | swda | Eurostat | 7 | average |
| **Turnover in retail trade** | | | | |
| Retail trade | swda | Eurostat | 5 | average |
| Retail trade, except for motor vehicles and motorcycles | swda | Eurostat | 5 | average |
| **Nights spent at tourist accommodation establishments** | | | | |
| Nights spent at tourist accommodation establishments | swda | Eurostat | 6 | sum |
| **Business and consumer surveys** | | | | |
| **Consumers** | | | | |
| Financial situation over the past 12 months | sa | Eurostat | 0 | last observation |
| Financial situation over the next 12 months | sa | Eurostat | 0 | last observation |
| General economic situation over the past 12 months | sa | Eurostat | 0 | last observation |
| General economic situation over the next 12 months | sa | Eurostat | 0 | last observation |
| Price trends over the past 12 months | sa | Eurostat | 0 | last observation |
| Price trends over the next 12 months | sa | Eurostat | 0 | last observation |
| Unemployment expectations over the next 12 months | sa | Eurostat | 0 | last observation |
| The current economic situation is adequate to make major purchases | sa | Eurostat | 0 | last observation |
| Major purchases over the next 12 months | sa | Eurostat | 0 | last observation |
| The current economic situation is adequate for savings | sa | Eurostat | 0 | last observation |
| Savings over the next 12 months | sa | Eurostat | 0 | last observation |
| Statement on the financial situation of the household | sa | Eurostat | 0 | last observation |
| Consumer confidence indicator | sa | Eurostat | 0 | last observation |
| **Industry** | | | | |
| Production development observed over the past three months | sa | Eurostat | 0 | last observation |
| Employment expectations over the next three months | sa | Eurostat | 0 | last observation |
| Assessment of order book levels | sa | Eurostat | 0 | last observation |
| Assessment of export order book levels | sa | Eurostat | 0 | last observation |
| Assessment of the current level of stocks of finished products | sa | Eurostat | 0 | last observation |
| Production expectations over the next three months | sa | Eurostat | 0 | last observation |
| Selling price expectations over the next three months | sa | Eurostat | 0 | last observation |
| Industrial confidence indicator | sa | Eurostat | 0 | last observation |
| **Construction** | | | | |
| Building activity development over the past three months | sa | Eurostat | 0 | last observation |
| Evolution of the current overall order books | sa | Eurostat | 0 | last observation |
| Employment expectations over the next three months | sa | Eurostat | 0 | last observation |
| Price expectations over the next three months | sa | Eurostat | 0 | last observation |
| Construction confidence indicator | sa | Eurostat | 0 | last observation |
| Factors limiting building activity – none | sa | Eurostat | 0 | last observation |
| Factors limiting building activity – insufficient demand | sa | Eurostat | 0 | last observation |
| Factors limiting building activity – weather conditions | sa | Eurostat | 0 | last observation |
| Factors limiting building activity – shortage of labor | sa | Eurostat | 0 | last observation |
| Factors limiting building activity – shortage of material and/or equipment | sa | Eurostat | 0 | last observation |
| Factors limiting building activity – other | sa | Eurostat | 0 | last observation |
| Factors limiting building activity – financial constraints | sa | Eurostat | 0 | last observation |
| **Retail sale** | | | | |
| Business activity (sales) development over the past three months | sa | Eurostat | 0 | last observation |
| Volume of stocks currently held | sa | Eurostat | 0 | last observation |
| Expectations of the number of orders placed with suppliers over the next three months | sa | Eurostat | 0 | last observation |
| Business activity expectations over the next three months | sa | Eurostat | 0 | last observation |
| Employment expectations over the next three months | sa | Eurostat | 0 | last observation |
| Retail confidence indicator | sa | Eurostat | 0 | last observation |

*Source: Authors' compilations.*

*Note: Seasonal as well as seasonal and working-day adjustment of indicators is undertaken by national statistical institutes; "sa" stands for seasonally adjusted, "wa" for working-day adjusted, "swda" for seasonally and working-day adjusted and "na" for not available.*

Table A1 continued

## List of short-term indicators

**Monthly indicators (continued)**

| Indicator | Seasonal adjustment | Source | Publication lag (weeks) | Frequency transformation |
|---|---|---|---|---|
| **Economic Sentiment Indicator** | | | | |
| Economic Sentiment Indicator | sa | Eurostat | 0 | last observation |
| **Services** | | | | |
| Business situation development over the past three months | sa | Eurostat | 0 | last observation |
| Evolution of demand over the past three months | sa | Eurostat | 0 | last observation |
| Expectation of demand over the next three months | sa | Eurostat | 0 | last observation |
| Evolution of employment over the past three months | sa | Eurostat | 0 | last observation |
| Expectation of employment over the next three months | sa | Eurostat | 0 | last observation |
| Services Confidence Indicator | sa | Eurostat | 0 | last observation |
| **Energy supply** | | | | |
| Natural gas | na | Eurostat | 7 | last observation |
| Electricity | na | Eurostat | 7 | last observation |
| Motor spirit | na | Eurostat | 7 | last observation |
| Diesel oil | na | Eurostat | 7 | last observation |
| **Passenger car registrations** | | | | |
| Passenger car registrations | swda | ECB | 2 | sum |
| **Prices** | | | | |
| HICP | na | Eurostat | 2 | average |
| Producer prices in industry | na | Eurostat | 5 | average |
| **Labor market** | | | | |
| Unemployment rate | sa | Eurostat | 5 | last observation |
| **International trade** | | | | |
| Imports | na | Eurostat | 6 | sum |
| Exports | na | Eurostat | 6 | sum |
| **Commodity prices** | | | | |
| ECB Commodity Price Index | na | Eurostat | 1 | average |
| HWWI index of world market prices | na | HWWI | 1 | average |
| HWWI index of world market prices, crude oil | na | HWWI | 1 | average |
| **IFO Business Climate Index** | | | | |
| IFO business climate | sa | CESifo | 0 | average |
| IFO assessment of business situation | sa | CESifo | 0 | average |
| IFO business expectations | sa | CESifo | 0 | average |

*Source: Authors' compilations.*

*Note: Seasonal as well as seasonal and working-day adjustment of indicators is undertaken by national statistical institutes; "sa" stands for seasonally adjusted, "wa" for working-day adjusted, "swda" for seasonally and working-day adjusted and "na" for not available.*

Table A1 continued

## List of short-term indicators

**Quarterly data**

| Indicator | Seasonal adjustment | Source | Publication lag (weeks) |
|---|---|---|---|
| **GDP** | | | |
| Real GDP | swda | Eurostat | 7 |
| **Business and consumer surveys** | | | |
| **Consumers** | | | |
| Intention to buy a car within the next 12 months | sa | Eurostat | 0 |
| Purchase or build a home within the next 12 months | sa | Eurostat | 0 |
| Home improvements over the next 12 months | sa | Eurostat | 0 |
| **Industry** | | | |
| Assessment of current production capacity | sa | Eurostat | 0 |
| Duration of production assured by current order books | sa | Eurostat | 0 |
| New orders in recent months | sa | Eurostat | 0 |
| Export expectations for the months ahead | sa | Eurostat | 0 |
| Current level of capacity utilization (%) | sa | Eurostat | 0 |
| Competitive position over the past three months on the domestic market | sa | Eurostat | 0 |
| Competitive position on foreign markets inside the EU over the past three months | sa | Eurostat | 0 |
| Competitive position on foreign markets outside the EU over the past three months | sa | Eurostat | 0 |
| **Construction** | | | |
| Operating time ensured by current backlog | sa | Eurostat | 0 |
| **Productivity** | | | |
| Employment in industry | swda | Eurostat | 7 |
| Volume of work done (hours worked) in industry | swda | Eurostat | 7 |
| Gross wages and salaries in industry | swda | Eurostat | 7 |
| Hourly labor cost index, whole economy | wa | ECB | 9 |
| Unit labor costs, whole economy | na | ECB | 9 |
| Compensation of employees | na | ECB | 9 |

*Source: Authors' compilations.*

*Note: Seasonal as well as seasonal and working-day adjustment of indicators is undertaken by national statistical institutes; "sa" stands for seasonally adjusted, "wa" for working-day adjusted, "swda" for seasonally and working-day adjusted and "na" for not available.*

# What can we learn from Eurosystem Household Finance and Consumption Survey data? – An application to household debt in Slovakia

Pirmin Fessler, Krisztina Jäger-Gyovai, Teresa Messner[1]

*This study delivers a stock-taking exercise of household debt in Slovakia. About 27% of all Slovak households hold at least some debt. The rate of homeownership in Slovakia is close to 90% and the highest in the euro area, while the share of indebted households is lowest. The reason for this peculiarity lies in the country's history. Less than 10% of households are mortgage debt holders, and about 20% hold nonmortgage debt. About 15% of total debt holdings are covered by liquid financial assets and about 50% by households' total assets excluding the main residence. When accounting only for the debt of vulnerable households, the share of total debt not covered by households' total assets excluding the main residence lies between about 4% and 15% – depending on the definition used for debt burden measures. In Slovakia, mostly households with relatively young household heads are indebted. Regression analyses show that while self-employed persons and persons with higher education are more likely to hold debt, especially the self-employed are less likely to be vulnerable.*

*JEL classification: D10, D14, D31, D39, E44, E17*
*Keywords: household indebtedness, ability to pay, microdata*

The current crisis has shown that, if it is highly indebted, even a small portion of the population can have a substantial influence on market developments and specifically bank solvency. Problems might occur not only in the case of household defaults, but as soon as households' ability to repay their debt is in question as banks might find it more difficult, in such a case, to refinance their debt. The lack of in-depth knowledge about households' balance sheets and specifically the debt burden of indebted households is in stark contrast to the general necessity to assess financial stability risks arising from household debt.

The Eurosystem Household Finance and Consumption Survey (HFCS) coordinated by the European Central Bank (ECB) is the first attempt to supply central banks and other institutions analyzing financial stability with microdata to analyze households' balance sheets across the euro area (ECB, 2013a; ECB, 2013b).

The first HFCS results have shown a large degree of heterogeneity with regard to debt participation, i.e. the share of indebted households in total households and the level of debt across the euro area. In the same vein, heterogeneity with regard to the debt burden and to measures of household vulnerability is high between different countries but also between different household types within countries. The HFCS was conducted in 15 euro area countries, of which only Slovakia and Slovenia are in Central, Eastern and Southeastern Europe (CESEE). Because of the insufficient sample size for Slovenia, this paper focuses on HFCS data on Slovakia.

In the present study, we examine the prevalence of household debt in Slovakia, characterize indebted households and their debt burden and discuss the relations between assets and liabilities of indebted Slovak households, which are especially important with regard to financial stability risks. Section 1 delivers background

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information on the role Slovakia plays for Austrian banks. The main part of the paper, section 2, is split into two parts. Subsection 2.1 includes descriptive statistics on the prevalence of household debt in Slovakia and on household debt levels. In subsection 2.2 we present the distribution of selected debt burden measures. In Section 3, we examine the shares in total debt held by different sets of vulnerable households (defined on the basis of the selected debt burden measures) and the shares in total debt covered by different asset classes. Unlike Messner and Zavadil (2014), we analyze specific groups of debtors whose financial situation is at risk and who could potentially pose a threat to the financial system. Furthermore, we examine the probabilities of holding debt as well as of being vulnerable by using regression analyses. Section 4 concludes.

## 1 Background on Austrian banks in Slovakia

At end-2014, the Slovak banking sector comprised 28 banks and branches of foreign banks. Foreign banks owned 88% of total assets of the Slovak banking system in H1 2014. All the main foreign parent banks active in CESEE have banking subsidiaries in Slovakia. Table 1 shows Austrian banks' market share in Slovakia as at December 31, 2014 (39% of total assets). At the end of 2014, domestic share capital accounted for 5.6% of total subscribed capital in the Slovak banking sector. Of a total of nine Slovak credit institutions with domestic share capital, two banks were 100% domestically owned. The Slovak banking sector is relatively concentrated, with the top five banks holding 70% of total assets in December 2013. The total assets-to-GDP ratio came to 85% and the deposits-to-GDP ratio was 57% in December 2014. Domestic credit to the private sector, at 53% of GDP, remains low by regional standards. The loan-to-deposit ratio is under 100%, which indicates a deposit-based lending activity. Because of this conservative funding structure and a focus on more traditional banking activities, the Slovak banking sector has stayed resilient to the global financial crisis. However, due to the downturn in the domestic economy and the loss of foreign currency transaction fees following the introduction of the euro, banking sector profitability has weakened and asset quality has deteriorated. Profits began to recover in 2010, enabling banks to increase both capital and liquidity.

Table 1

**Austrian banks in Slovakia**

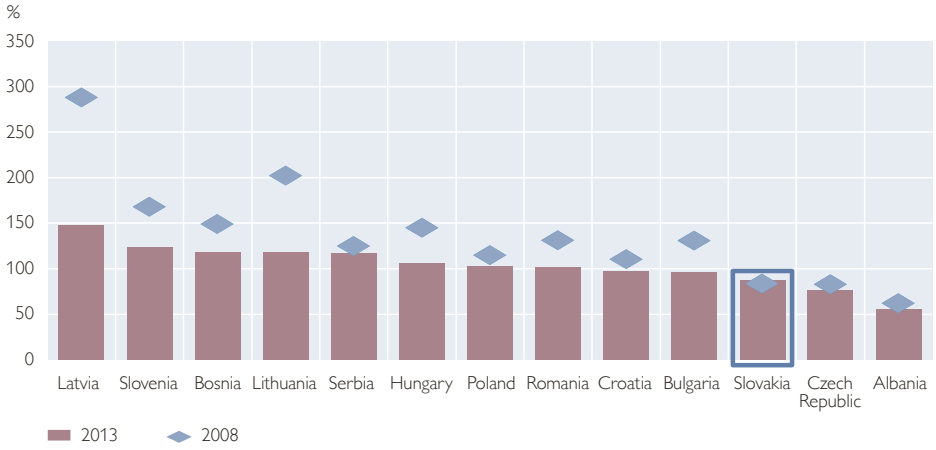
| Subsidiary | Parent bank | Market share (% of total assets) |
|---|---|---|
| Sberbank Slovensko | Sberbank Europe | 3 |
| Tatra Bank | Raiffeisen Bank International AG | 15 |
| Slovenska sporitelna | Erste Group Bank | 20 |
| Wüstenrot stavebna sporitelna | Bausparkasse Wüstenrot | 1 |

*Source: OeNB.*

Chart 1 shows the loan-to-deposit ratios in Eastern European markets. Slovakia has a relatively low and stable loan-to-deposit ratio of about 90%.

Chart 1

**Loan-to-deposit ratio**

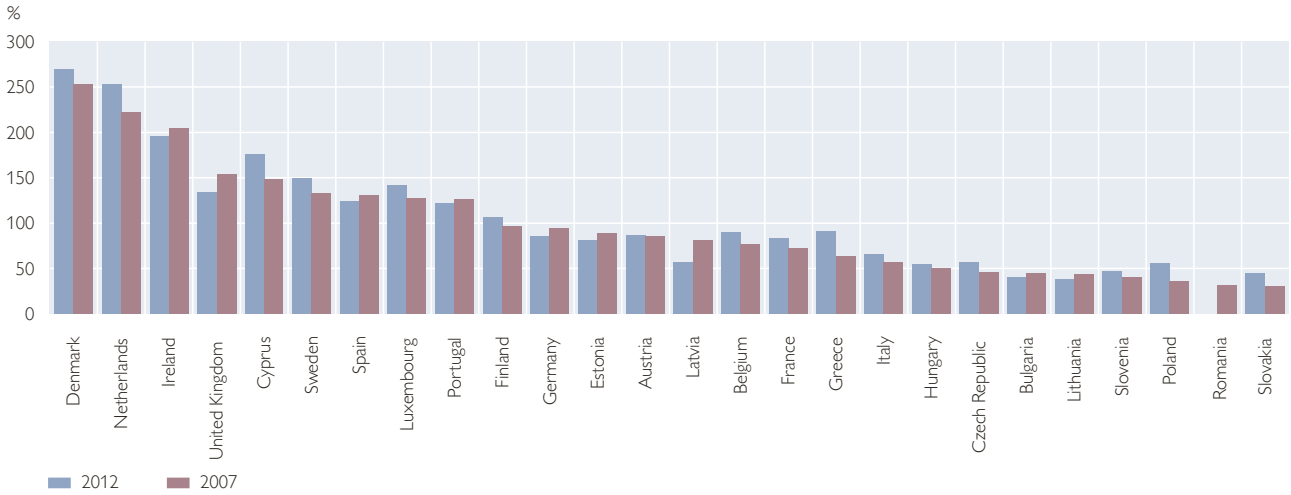



*Source: OeNB.*

Household sector debt measured as a share of households' disposable income rose sharply in Slovakia between 2004 and 2012, but this ratio still remains among the lowest in the European Union (see chart 2 and chart 3). This can be explained by Slovakia's history of mortgage market developments (for details, see section 3.1).

Chart 2

**Households' debt-to-gross disposable income ratio**

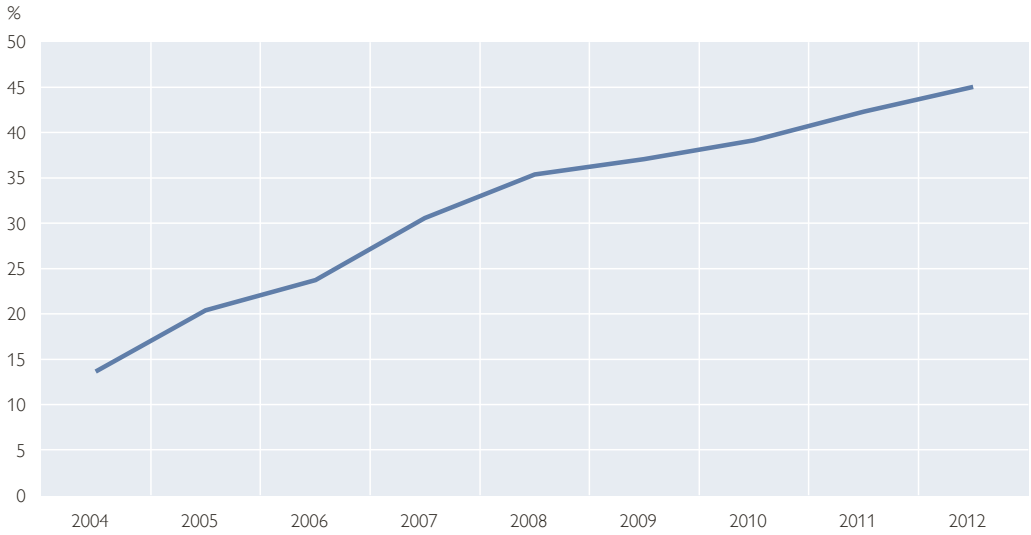



*Source: ECB, European Commission.*

*Note: Gross disposable income adjusted for the change in household setcors' net equity and pension fund reserves.*

Chart 3

**Slovak households' debt-to-gross disposable income ratio**




*Source: ECB, European Commission.*

*Note: Gross disposable income adjusted for the change in household sectors' net equity and pension fund reserves.*

Aggregate data do not tell us much about credit risk as they hide the joint distribution of the main risk elements (e.g. households' debt level, debt servicing capacity and collateral).

## 2 Household-level microdata

We use data from the Slovak HFCS, which is part of the euro area-wide effort to gather household-level micro data on finance and consumption; as such, it is a representative household-level survey that covers the entire balance sheet of households in Slovakia. In particular, it covers various types of loans, e.g. mortgage loans collateralized with the respective household's main residence or with further real estate (reported separately), all types of nonmortgage loans and all types of assets (real and financial assets) households hold. In this analysis, we use most of the information about the liability side of households' balance sheets from the HFCS, whereas for (real and financial) wealth levels and total household income[2] we use only basic information. Sociodemographic information about Slovak households allows us to gain a deeper understanding of the general background of indebted Slovak households.

In Slovakia, an income quota sample scheme was used for the HFCS with stratification based on 8 Slovak regions and 5 municipality-sized groups (altogether 40 strata). Each stratum was attributed to randomly selected municipalities, in which households were chosen by a random walk. The sample covers all households that are neither homeless nor living in an institution (like homes for the elderly or the military). In total, the final net sample consists of 2,057 households. Data from the

[2] *Household income is measured as gross income and is defined as the sum of labor and nonlabor income of all household members. Labor income is collected for all household members aged 16 and older. Data on other income sources are collected at the household level.*

population register on age, gender, region, household size and housing status were used to establish post-stratification weights, leading to a total of 1.9 million households represented in the survey, implying a mean weight of 929.

Partial response refusal (missing observation, "don't know" and "no answer" responses for specific questions) is corrected by using a Bayesian-based multiple imputation procedure with chained equations. This technique achieves consistent estimates taking into account the uncertainty of imputations. Thus, the results presented in this study are based on all five implicates of the imputations: Following the literature (see e.g. Rubin, 2004), we calculate separate statistics (proportion, mean, median, etc., denoted as $S_i$) for every implicate $i=1,...,5$ and take the average so that the final estimate is given by

$$S = \frac{1}{5}\sum_{i=1}^{5} S_i. \tag{1}$$

To calculate standard errors, we use replicate weights $r=1,...,R$ (see e.g. Wu and Rao, 1988, and Wu et al., 1992). Using replicate weights accounts for the additional uncertainties arising from the complex design of the survey and from multiply imputed values, such that total variance is given by

$$T = W + \left(1 + \frac{1}{5}\right)B, \tag{2}$$

where $W = \frac{1}{5}\sum_{i=1}^{5} U_i$ is the within variance $U_i = \frac{1}{R-1}\sum_{r=1}^{R}(S_{ir} - \overline{S}_{iR})^2$ in a given implicate $i$ averaged over all five implicates, $S_{ir}$ is the statistics $S_i$ calculated for implicate $i$ using replicate weight $r$, $\overline{S}_{iR} = \frac{1}{R}\sum_{r=1}^{R} S_{ir}$ is the average of $S_{ir}$ over all $R$ replicate weights, and $B$ is the variance between implicates, i.e. $B = \frac{1}{4}\sum_{i=1}^{5}(S_i - S)^2$.

Throughout the study, we use the Canberra reference person, who is chosen according to the international standards of the so-called Canberra Group (UNECE, 2011), which uses the following sequential steps to determine a unique reference person per household: 1) determining household type,[3] 2) determining the person with the highest income, 3) determining the eldest person in the household (see ECB, 2013b).

### 2.1 Household debt in Slovakia

Household debt across Europe is to a high degree shaped by different institutional settings such as housing market policies but also by history itself. This partly explains the varying degrees of homeownership and also the varying degrees of household indebtedness. Table 2 shows the share of euro area households owning their main residence (HMR) as well as the shares of indebted households and mortgage and nonmortgage debt holders.

[3] *Determined by 1) one of the partners in a registered or de facto marriage, with dependent children, 2) one of the partners in a registered or de facto marriage, without dependent children, and 3) a lone parent with dependent children.*

Table 2

**Prevalence of main residence ownership and household debt across the euro area**

| | Households owning main residence | Households holding debt | Households holding mortgage debt | Households holding nonmortgage debt |
|---|---|---|---|---|
| All | 60.1 | 43.7 | 23.1 | 29.3 |
| BE | 69.6 | 44.8 | 30.5 | 24.2 |
| DE | 44.2 | 47.4 | 21.5 | 34.6 |
| GR | 72.4 | 36.6 | 17.5 | 26.1 |
| ES | 82.7 | 50.0 | 32.5 | 30.7 |
| FR | 55.3 | 46.9 | 24.4 | 32.8 |
| IT | 68.7 | 25.2 | 10.8 | 17.8 |
| CY | 76.7 | 65.4 | 44.8 | 47.9 |
| LU | 67.1 | 58.3 | 38.8 | 36.9 |
| MT | 77.7 | 34.1 | 15.6 | 25.2 |
| NL | 57.1 | 65.7 | 44.7 | 37.3 |
| AT | 47.7 | 35.6 | 18.4 | 21.4 |
| PT | 71.5 | 37.7 | 26.7 | 18.3 |
| SI | 81.8 | 44.5 | 14.1 | 38.9 |
| SK | 89.9 | 26.8 | 9.6 | 19.9 |
| FI | 67.8 | 59.8 | × | × |

*Source: ECB, HFCS report on the results from the first wave.*

It reveals that, compared to other euro area countries, Slovakia has the highest degree of homeownership, while its share of indebted households is lowest. The reason for this peculiarity lies in the country's history: During the communist era (i.e. before 1990), a housing market de facto did not exist in centrally planned Czechoslovakia. Households could either construct their own house (mainly in the rural areas) or rent a state- or cooperative-owned flat (mainly in towns). After 1990, with political and structural changes proceeding, household-occupied flats could be legally transferred into the ownership of households for an affordable and rather symbolic price. A modern mortgage market, however, only started to develop several years after the fall of communism (Messner and Zavadil, 2014).

Given this historical background, we do not only find high homeownership and low mortgage debt participation in Slovakia in general, but also that debt market participants are relatively young, which will be shown in the subsequent section.

### 2.1.1 Debt participation and debt level

To illustrate the basics of the risks vulnerable households pose to financial stability, we provide information on the socioeconomic structure of Slovak households, their debt participation and debt levels. As can be seen from the first column in table 3, we find that almost half of Slovak households have one to two members, with the majority of reference persons being middle-aged, having completed secondary education and being regularly employed.

The subsequent columns in table 3 provide the information on households' participation in different types of debt (total debt, mortgage debt and nonmortgage debt). The last two columns show the median volumes of households' mortgage and nonmortgage debt. Slovak households participate only modestly in the debt market: Just slightly over one-quarter of Slovak households hold any debt, 10% have outstanding mortgage debt, collateralized by a piece of property, and

twice as many have noncollateralized debt, such as consumer loan debt or credit card debt. The median values of mortgage and nonmortgage debt differ substantially, since the former covers long-term investments, while the latter is intended to flexibly finance short-term consumption needs.

The first panel of table 3 shows that debt participation increases with household size up to a certain threshold and decreases again as households become larger. For historical reasons (see section above), debtors in Slovakia are relatively young. While 42% of the 25 to 34 year-olds have accumulated debt, only roughly 15% of the 55 to 64 year-olds are debt holders. The picture is similar for mortgage debt, where the highest debt participation can be found among 25 to 44 year-olds. At a higher age, people have partially or fully paid off their debt, which results in negligible debt participation and lower median debt levels. When comparing the

Table 3

**Socioeconomic characteristics of indebted households in Slovakia**

| | Share in total households | Share (%) of households with | | | Median value (EUR) of | |
|---|---|---|---|---|---|---|
| | | Debt | Mortgage debt | Nonmortgage debt | Mortgage debt | Nonmortgage debt |
| Total | | 26.8 | 9.6 | 19.9 | 25,000 | 1,000 |
| Household size | | | | | | |
| One household member | 23.1 | 11.2 | 4.0 | 7.9 | n | 515 |
| Two household members | 23.8 | 19.4 | 6.7 | 13.8 | 22,600 | 1,000 |
| Three household members | 20.4 | 36.5 | 13.6 | 27.7 | 26,900 | 1,000 |
| Four household members | 21.5 | 41.1 | 16.3 | 29.3 | 25,700 | 1,900 |
| Five or more household members | 11.2 | 29.4 | 7.7 | 25.6 | n | 900 |
| Age of reference person | | | | | | |
| Age 16 to 24 | 6.0 | 32.8 | 8.4 | 27.6 | n | 1,100 |
| Age 25 to 34 | 16.8 | 41.9 | 20.5 | 26.7 | 28,000 | 1,200 |
| Age 35 to 44 | 20.4 | 39.0 | 16.5 | 27.9 | 26,700 | 1,000 |
| Age 45 to 54 | 21.2 | 32.0 | 8.0 | 26.4 | 15,000 | 1,700 |
| Age 55 to 64 | 16.7 | 14.6 | 3.9 | 9.1 | n | 600 |
| Age 65 to 74 | 15.7 | 3.9 | 0.0 | 5.4 | n | n |
| Age 75+ | 3.3 | 0.0 | 0.0 | 0.6 | n | n |
| Highest level of education of reference person | | | | | | |
| Primary education | 7.1 | 5.1 | 1.3 | 4.4 | n | n |
| Secondary education | 76.6 | 28.4 | 9.3 | 22.0 | 24,800 | 1,000 |
| Tertiary education | 16.3 | 28.4 | 15.0 | 16.8 | 27,800 | 2,100 |
| Employment situation of reference person | | | | | | |
| Employed | 56.0 | 32.1 | 12.4 | 23.4 | 21,400 | 1,200 |
| Self-employed | 7.5 | 41.2 | 17.0 | 29.0 | 18,400 | 2,000 |
| Unemployed | 5.2 | 38.1 | 12.2 | 28.2 | n | n |
| Retired | 26.2 | 5.7 | 0.6 | 5.1 | n | n |
| Other | 5.1 | 41.3 | 8.7 | 35.2 | n | 700 |
| Total gross household income | | | | | | |
| 1–20 gross income percentile | 20.9 | 14.0 | 3.8 | 11.4 | n | 400 |
| 21–40 gross income percentile | 19.1 | 20.4 | 8.5 | 13.5 | 23,400 | 600 |
| 41–60 gross income percentile | 20.1 | 36.5 | 12.9 | 27.0 | 27,200 | 1,500 |
| 61–80 gross income percentile | 19.9 | 32.6 | 13.1 | 23.4 | 25,300 | 1,300 |
| 81–100 gross income percentile | 19.9 | 30.6 | 10.0 | 24.4 | 23,700 | 1,900 |

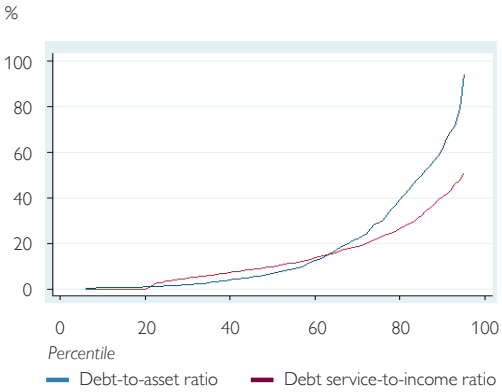
*Source: HFCS 2010, OeNB.*

*Note: n: less than 25 observations. Other: students, fulfilling domestic tasks, in military service or civilian service. The household reference person is chosen according to the international standards of the so-called Canberra Group (UNECE 2011), which uses the following sequential steps to determine the unique reference person per household: 1) household type determined by a) one of the partners in a registered or de facto marriage, with dependent children, b) one of the partners in a registered or de facto marriage, without dependent children, and c) a lone parent with dependent children, 2) the person with the highest income, 3) the eldest person.*

Slovak data with corresponding euro area data (HFCS 2010), Slovak debtors are relatively young compared with the euro area average: while the share of debt participants aged 16 to 34 is roughly 55% in the euro area as a whole, it amounts to approximately 75% in Slovakia. Furthermore, the share of this particular age group holding mortgage debt and nonmortgage debt is 22% and 42%, respectively, in the euro area, whereas it is 29% and 55%, respectively, in Slovakia. The next panel of table 3 shows that households with a better educated reference person are more likely to hold debt. Participation in mortgage debt is particularly higher for persons who have completed tertiary education; their debt levels are also higher, which is probably linked to their better income situation. Nonmortgage debt participation, however, is higher among households whose reference person has completed secondary education.

Chart 4

**Distribution of debt-to-asset and debt service-to-income ratios among indebted households in Slovakia**




*Source: HFCS 2010.*

### 2.2 Debt burden

There are several measures to assess the debt burden. We use two of them, namely the debt service-to-income (DSTI) ratio and the debt-to-asset (DTA) ratio. Chart 4 shows the distribution of these measures between the 5th and 95th percentile for all indebted households in Slovakia.

About 65% of all indebted households in Slovakia have a DSTI ratio below 20% of their gross income and only about 5% exceed a level of 50% of their gross income. Similarly DTA ratios of indebted households are rather low. Again, about 65% of indebted households do not exceed a DTA ratio of 20% and only 5% exceed a debt level of 90% of their assets.

## 3 Vulnerability and loss given default

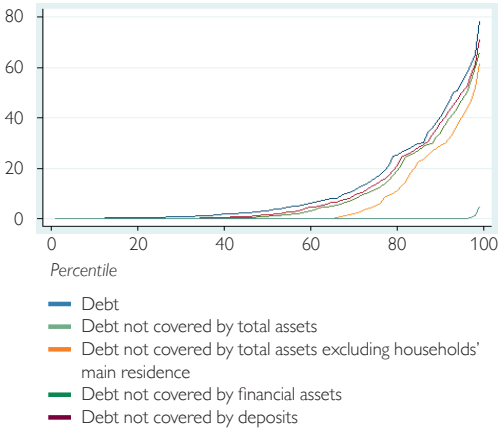
To assess financial stability issues, it is decisive to know details about the joint distribution of households' assets and liabilities. Which part of household debt is covered by assets? Macrodata based on aggregates do not provide answers here as they do not reveal to what degree households that hold debt also hold assets. Microdata allow us to understand the joint distribution of assets and liabilities at the household level.

Chart 5 shows the distribution of debt among indebted households in Slovakia. Additionally, it shows the distribution of debt remaining once 1) deposits, 2) financial assets, 3) households' total assets excluding the household main residence (HMR) and 4) total assets are deducted at the household level. This illustrates which part of households' total debt can be easily covered by their assets, from very liquid ones such as deposits to very illiquid ones such as their main residence. About 15% of households' total debt is covered by deposits, about 20% by households' total financial assets, and about 50% by households' total assets excluding

Chart 5

**Debt coverage by different asset classes**

*EUR 1,000*




*Source: HFCS 2010.*

their HMR. When the HMR is deducted as well, only 1.2% uncovered debt remains (see table 4). However, interpretations need to be cautious as this is purely an accounting exercise. Given financial stress or fire sales in the housing market, it is very likely that banks and/or households would not be able to achieve the estimated market prices given by respondents.

To better understand the share of debt with possibly higher associated risks, a frequently used approach is to define so-called vulnerable households, i.e. households whose debt burden exceeds a certain level. Additionally, one can use a financial margin definition, which relates typical expenditure with typical income. We focus on the three most consensual indicators gained from these approaches (Albacete and Lindner, 2013; Albacete and Fessler, 2010; ECB, 2013a), arriving at the following three definitions of vulnerable households (see table 4):

– first indicator: all households with a DSTI ratio above 40% (10.3% of indebted households);
– second indicator: all households with a DTA ratio above 75% 6.3% of indebted households);
– third indicator: all households whose household expenditure in the last 12 months exceeded household income (definition related to the financial margin (FM) and based on a direct question to respondents) (9.4% of indebted households).

Table 4

**Debt of indebted households by vulnerability and asset coverage**

| | All indebted households | Debt service to income > 40% | Debt-to-asset ratio > 75% | Expenditure exceeds income |
|---|---|---|---|---|
| | *Share in total debt, %* | | | |
| Percent of indebted households | 100 | 10.3 | 6.3 | 9.4 |
| Total debt | 100.0 | 28.9 | 8.7 | 9.1 |
| Debt not covered by liquid assets | 85.2 | 26.5 | 8.5 | 8.2 |
| Debt not covered by financial assets | 78.2 | 24.5 | 8.3 | 7.5 |
| Debt not covered by total assets excluding households' main residence | 51.7 | 15.2 | 7.2 | 3.9 |
| Debt not covered by total assets | 1.2 | 0.4 | 1.2 | 0.7 |

*Source: HFCS 2010.*

Households defined as vulnerable by their DSTI ratio (10.3%) hold a highly overproportional amount of debt (28.9%), while those defined as vulnerable by their DTA ratio (6.3%) hold only a slightly overproportional share (8.7%) in total

debt and those defined as vulnerable according to the FM definition (9.4%) hold an underproportional share (9.1%). This share decreases most strongly for households under the DSTI definition once real assets as well as HMRs are deducted. That indicates that households with a high DSTI ratio are likely to have relatively large mortgage loans that served to buy relatively expensive main residences. Households with a high DTA ratio, by contrast, seem to post somewhat lower debt levels accompanied by lower asset values. Households with a negative FM are less frequently mortgage holders owning HMRs, as their debt levels decrease only slightly (compared to that of the other groups) when the respective HMR is deducted.

To better understand which socioeconomic characteristics are related to holding debt in general as well as to being vulnerable, we estimate a number of logistic regressions and calculate the average marginal effects.

Table 5 shows the estimated marginal effects of four logit regressions.[4]

The first column includes the full household sample and estimates the marginal effect on households' probability of holding debt. On average, their probability of holding debt (i.e. the share of indebted households) is 0.27. This probability increases with the level of education (secondary education: +15 percentage points; tertiary education: +12 percentage points) compared to households whose reference persons have only primary education. Being self-employed or retired rather than being employed also increases the probability of holding debt by 7.5 percent-

Table 5

**Debt and vulnerability logit regressions: marginal effects**

| | P(debt\|X) | P(DSTI>40\|X) | P(DTA>75\|X) | P(FM<0\|X) |
|---|---|---|---|---|
| P(Y) | 0.267 | 0.103 | 0.063 | 0.094 |
| | *Average marginal effects (dy/dx)* | | | |
| Number of household members | 0.00909 | –0.0125*** | –0.0227*** | 0.0242*** |
| | (0.0149) | (0.00476) | (0.00387) | (0.00272) |
| Age | 0.0322*** | 0.0108** | –0.00650 | 0.0103 |
| | (0.00209) | (0.00512) | (0.00876) | (0.0156) |
| Age squared | –0.000455*** | –0.000159*** | 5.55e–05 | –0.000120 |
| | (9.54e–06) | (6.09e–05) | (0.000114) | (0.000197) |
| Secondary education | 0.155*** | –0.152** | –0.00832 | –0.0511 |
| | (0.0253) | (0.0612) | (0.0799) | (0.152) |
| Tertiary education | 0.128*** | –0.145*** | –0.0600 | –0.0920 |
| | (0.0136) | (0.0456) | (0.104) | (0.193) |
| Self-employed | 0.0781*** | –0.0296* | –0.146*** | –0.0262*** |
| | (0.0177) | (0.0173) | (0.0151) | (0.00336) |
| Unemployed | 0.0242 | 0.0150 | 0.0507*** | 0.134*** |
| | (0.0280) | (0.0647) | (0.0138) | (0.0399) |
| Retired | 0.0351*** | | –0.00933 | 0.0440 |
| | (0.00342) | | (0.0449) | (0.127) |
| Other | 0.116*** | 0.0474** | –0.0728*** | 0.0511*** |
| | (0.00164) | (0.0200) | (0.0169) | (0.0129) |
| Number of observations | 2.057 | 632 | 632 | 632 |

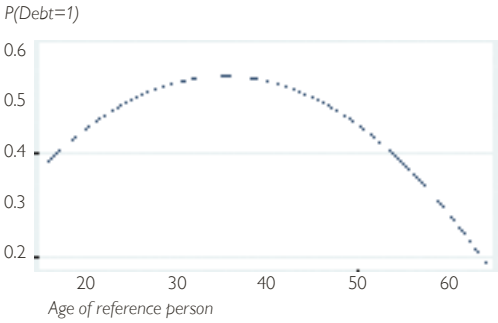
*Source: HFCS 2010.*

*Note: Standard errors in parentheses (using replicate weights). ***, ** and * denote significance at the 0.01, 0.05 and 0.10 level, respectively.*

[4] *Since this is a purely descriptive model, we do not present any measures of goodness of fit.*

Chart 6

**Effect of age on probability of holding debt**




Source: HFCS 2010.

age points and 3.4 percentage points, respectively. The number of household members is found not to play a significant role in household indebtedness.

In our regression, we control for the age of the reference person using age itself as well as a quadratic age term (both highly significant) to allow for nonlinearities. While we find a hump-shaped age pattern, the strong effect already for the group of very young reference persons is remarkable (see chart 6).

The second, third and fourth column of table 5 show logit regressions using only indebted households to predict the probability of a household to be vulnerable according to our three measures of vulnerability. The results show that larger households are less likely to be vulnerable with regard to their DSTI (–1.3 percentage points) and DTA measures (–2.3 percentage points) but are at the same time more likely to be vulnerable with regard to their FM measure (+2.4 percentage points). These are all substantial effects given the low probability of being among vulnerable households (i.e. share of vulnerable households in indebted households). Age seems to be only relevant with respect to the DSTI measure, where it also reveals a hump-shaped pattern among indebted households. The same is true for higher education (secondary education: –15 percentage points; tertiary education: –15 percentage points), which has a significant and very strong negative effect on the households' probability of being vulnerable with regard to the DSTI measure but does not show any significant relationship to the other measures. Being self-employed significantly decreases the probability of being vulnerable with regard to all three vulnerability measures, but especially for the DTA measure (–15 percentage points), while being unemployed strongly increases the probability of being vulnerable with regard to the DTA measure (+5.1 percentage points) and the FM measure (+13.4 percentage points). Although in the category "Other," there are significant effects on the probability of being vulnerable with regard to all vulnerability measures, we do not consider these results since the "Other" group is very heterogeneous and comprises only 5% of total Slovak households.

## 4 Conclusions

The Household Finance and Consumption Survey (HFCS) for Slovakia provides interesting insights into household indebtedness and household vulnerability in Slovakia. The availability of HFCS or comparable data sets from other CESEE countries would significantly increase the possibilities for analyses of possible risks for financial stability arising from household indebtedness.

The rate of homeownership in Slovakia is close to 90%, which is the highest in the euro area, while the share of indebted households in total households is lowest. Moreover, in Slovakia mostly households with relatively young household heads

are indebted. The reason for this peculiarity lies in the country's history after 1990 and the related political and structural changes.

We find that about 27% of all Slovak households hold at least some debt. Less than 10% are mortgage debt holders and about 20% hold nonmortgage debt. About 15% of households' total debt holdings are covered by liquid financial assets, and about 50% by households' total assets excluding the main residence. When accounting only for vulnerable households' debt, the share of total debt not covered by households' total assets excluding the main residence is between about 4% and 15%. Regression analyses show that while self-employed persons and those with higher education are more likely to hold debt, especially the self-employed are less likely to be vulnerable. Overall, risks for banks resulting from household debt in Slovakia seem to be far less pronounced than in other countries of the region. However, microdata on households that would allow for analyzing household vulnerability are still fairly scarce in Eastern Europe. Fortunately, Estonia, Poland and Hungary are expected to join the second wave of the HFCS, which will significantly increase the possibilities to analyze financial stability based on comparable cross-country data or to monitor the structural dynamics of households' financial vulnerability in these countries.

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# CESEE-related abstracts from other OeNB publications

The abstracts below alert readers to studies on CESEE topics in other OeNB publications. Please see *www.oenb.at* for the full-length versions of these studies.

### Ukraine: struggling banking sector amid substantial uncertainty

Stephan Barisitz, Zuzana Fungáčová

The situation of banks in Ukraine is exceptionally challenging for a number of reasons. First of all, banks had not managed to recover from the 2008–09 crisis before being hit again in 2014. Hence, the deep Ukrainian recession and the hryvnia's plunge – together with strong exposure to geopolitical tensions – tipped the banking sector again deeply into the red. Amid an environment of persistent uncertainty, many foreign-owned banks have left the country. In addition to chronic structural shortcomings, such as weak rule of law, excessively high corruption, opaque ownership structures and connected lending, the most significant problems currently plaguing the sector include high and growing credit risk and high exchange rate risk. The country faces a dramatic credit crunch and even more alarming deposit outflows. Financial intermediation has practically collapsed, with the number of insolvent banks rising quickly. The major shock-absorbing factor is the IMF's and the international community's commitment to financially assist Ukraine.

To be published in *Financial Stability Report 29*.

### Spillovers from euro area and U.S. credit and demand shocks: comparing emerging Europe on the basis of a GVAR model

Ludmila Fadejeva, Martin Feldkircher, Thomas Reininger

We examine the international effects of adverse loan supply and aggregate demand shocks originating in the euro area and the U.S.A. For that purpose, we use a global vector autoregressive (GVAR) model and isolate disturbances stemming from loan supply from those of four other macroeconomic shocks by means of sign restrictions. Our general results are as follows: Domestic and international responses of total credit and output to an adverse loan supply shock are substantial. They are more pronounced than the responses to an aggregate demand shock. Under both types of shocks, total credit decreases considerably more strongly than output in the long run, implying a reduction in financial deepening. This deleveraging process is particularly pronounced in the case of loan supply shocks. Taking a regional angle, Central, Eastern and Southeastern Europe (CESEE) and even considerably more the Commonwealth of Independent States (CIS) are the most strongly affected regions, and their total credit and output responses are stronger than in the country of shock origin. This is true for both types of structural shocks in the euro area and in the U.S.A. Last, historical decompositions of deviations from trend growth show that for the euro area developments, foreign shocks originating in the U.S.A., the UK and the CESEE and CIS regions feature most prominently, while for the U.S. developments, foreign shocks emanating from the euro area and China play a considerable role.

Published as *OeNB Working Paper 198*.

# Event wrap-ups and miscellaneous

# Conference: "The Western Balkans: 15 Years of Economic Transition"

Compiled by
Antje Hildebrandt
and
Thomas Scheiber

The International Monetary Fund (IMF) and the Oesterreichische Nationalbank (OeNB), in cooperation with the Joint Vienna Institute (JVI), hosted a conference in Vienna on March 10, 2015, marking 15 years of economic transition in the Western Balkan countries.[1] Following on the heels of the IMF's presentation of its recently published Regional Economic Issues Special Report on the Western Balkans[2] by *Aasim Husain,* Deputy Director in the European Department of the IMF, the conference also delivered a platform for ministers and central bank governors of the region to exchange their views on economic policy issues.

## Growth convergence and inclusiveness

The first session dealt with issues of growth convergence and inclusiveness. It was chaired by *Aasim Husain* and opened by *Ivanna Vladkova Hollar* (both IMF), who discussed factors that have affected the speed of convergence of the Western Balkan countries. Hollar explained that the region has improved living standards and increased income levels after the dislocations of the 1990s. However, the pace of convergence toward EU levels has been slower than in the CESEE EU Member States and has stalled since the onset of the crisis at per capita income levels of less than one-third of the EU average. From 2000 to 2011, capital accumulation and growth of total factor productivity contributed to GDP growth, while increases in labor input were negligible as a growth driver. Hollar showed that unemployment rates are very high and activity rates are low in comparison to the new EU Member States or the EU-17.[3] She argued that a relatively low FDI stock per capita has held back job creation in the Western Balkan countries. In contrast, the new EU Member States have been able to attract larger amounts of FDI and consequently face considerably lower unemployment rates. Hollar argued that weak labor market outcomes in the Western Balkans are also the result of comparatively low rankings in global competitiveness as measured by indicators such as the share of women in the labor force and the flexibility of wage determination. She concluded by saying that not only macroeconomic developments are important for improving the labor market situation of the Western Balkan countries, but that also structural reforms are decisive.

The next speaker, *Gallina Vincelette* (World Bank), focused on drivers of economic growth, the pace of convergence, and progress in inclusive and sustainable economic growth in the Western Balkan countries. According to Vincelette, economic growth can be considered as a key driver of poverty reduction. While the pre-crisis years in the Western Balkans still saw stable economic growth, the countries are now facing a rather challenging situation with low GDP growth, high unemployment rates and weaker inflow of remittances. Households in the Western Balkans to a large extent depend on transfers (remittances, other private transfers or public transfers) and show weak attachment to the labor market.

[1] *The term "Western Balkans" covers the following seven countries: Albania, Bosnia and Herzegovina, Croatia, Kosovo, FYR Macedonia, Montenegro and Serbia.*

[2] *See http://www.imf.org/external/pubs/ft/reo/2015/eur/eng/pdf/erei_sr_030915.pdf.*

[3] *The term "EU-17" covers the following countries of the European Union: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, Malta, Netherlands, Portugal, Spain, Sweden and the United Kingdom.*

Especially young people, women and minorities are often excluded from the labor market. Vincelette also pointed out that public transfers are very high in Western Balkan countries, but often poorly targeted. The presenter proposed several measures for sustainable economic growth and the creation of jobs in the region: maintaining macroeconomic stability, improving the quality of the investment and governance environment, eliminating disincentives and barriers to jobs, enhancing the efficiency of public services and infrastructure, improving the targeting and coverage of social protection systems and, finally, using natural resources in a sustainable way.

*Isabella Moder* (OeNB) discussed to what extent the business cycles of the Western Balkan economies are synchronized with the euro area and explained the factors that drive business cycle convergence between the two regions.[4] Western Balkan countries have limited or no scope at all for independent monetary policy. Against this background the degree of business cycle synchronization is relevant for evaluating the costs of lacking independent monetary policy. The presenter showed that business cycle synchronization vis-à-vis the euro area is high for Bosnia and Herzegovina, Croatia, FYR Macedonia and Montenegro, whereas progress in that area has been more gradual in Albania, Kosovo and Serbia. Generally speaking, business cycle synchronization has increased over time. Only during the peak of the financial crisis in 2009, an interruption was observable. Moder also found that bilateral trade and fiscal policy – used as an anticyclical stabilization instrument – support business cycle convergence, while FDI inflows and remittances seem to have a dampening effect on it. She concluded that, in terms of business cycle synchronization, the lack of independent monetary policy seems not to be very costly at the current stage. However, she cautioned that business cycle synchronization is only one aspect of an optimal currency area and that other aspects are also important.

## Macroeconomic and structural policies

The second session, chaired by *Ellen Goldstein* (World Bank), addressed the issue of macroeconomic and structural policy. *Zuzana Murgasova* (IMF) provided an overview of the key macroeconomic challenges in the Western Balkan countries. She focused on external imbalances in the region. Current account deficits are very high when compared with the new EU Member States. She argued that current account deficits are largely driven by huge trade deficits reflecting weak competitiveness and low export ratios. Furthermore, FDI inflows are largely directed toward the nontradable sectors and not to the tradable sector. With regard to public finances, most Western Balkan countries have experienced some deterioration of their fiscal position since the onset of the financial crisis, and fiscal consolidation is needed in many countries. On the positive side, the Western Balkan countries have successfully reduced inflation but now are facing new challenges because inflation rates are very low or even have reached negative territory in several Western Balkan countries. Finally, Murgasova showed that the applied exchange rate regime seems to be irrelevant for inflation.

[4] *The presentation was based on joint work with Antje Hildebrandt (OeNB).*

*Peter Sanfey* (European Bank for Reconstruction and Development – EBRD) elaborated on the inherited structural challenges of the Western Balkan countries at the start of the transition process and described how the region has progressed in terms of structural reforms since 2000. He analyzed the well-known EBRD transition indicators. In 1989, it seems that Western Balkan countries (excluding Albania) were in a better starting position than some of the new EU Member States. However, one has to be careful when analyzing the indicators. In former Yugoslavia, for example, some liberalization and privatization had been undertaken by 1990 but effective privatization and better governance was often thwarted by social ownership. A comparison of intraregional trade among the Western Balkan countries and among the new EU Member States (excluding Bulgaria, Croatia and Romania) shows that there is much scope for improving trade linkages among the Western Balkan countries. Sanfey provided evidence from the Life in Transition Survey by the EBRD and World Bank that nostalgia for the past has made reforms more difficult in the Western Balkans. Furthermore, a large share of people in the Western Balkans believe that political connections and patronage are important for getting ahead in life. Despite these negative aspects, reforms have advanced since 2000 in the Western Balkan countries but the region still lags behind the new EU Member States.

*Maksym Ivanyna* (JVI), in a joint study with *Norbert Funke* (JVI), analyzed how Western Balkan countries compare to CESEE EU Member States in terms of structural reform progress and proposed reform priorities both at the regional and country level. Reforms are decisive for economic growth but some reforms have a stronger impact on economic performance than others. Ivanyna analyzed reform gaps in combination with growth regressions. Compared to CESEE EU Member States the reform potential and need is still large; most reforms are of high priority. Reforms of institutions, investments in infrastructure, financial market development and goods market efficiency are important in at least five of the six countries. Progress in labor market efficiency and education are also critical.

## Financial sector development and stability

The third session focused on financial sector development and stability and was chaired by *Doris Ritzberger-Grünwald,* Director of the Economic Analysis and Research Department of the OeNB. *Nadeem Ilahi,* Deputy Division Chief in the European Department of the IMF, presented the Special Report results on financial deepening, banking sector resilience and challenges to financial sector development. The Western Balkans' banking sector has been substantially transformed by foreign investment and know-how, which has facilitated a more efficient allocation of capital. Starting in the early 2000s, foreign investment into banking combined with increased deposit bases boosted private sector credit. As a result, bank deposits and bank credit to the private sector increased by a cumulative 30% of GDP between 2002 and 2012. In fact, financial sectors in the Western Balkans have deepened more than those in the CESEE EU Member States at comparable stages of transition. Nevertheless, overall financial depth is fairly low, particularly in the nonbank financial sector, mirroring still lower levels of income and development. Some Western Balkan countries do not even have a stock market. In the years leading up to the global financial crisis, the increase in capital flowing into the Western Balkans was as significant as that into CESEE EU Member States.

The resulting extension of credit via bank intermediation went beyond what fundamentals would have warranted – similar to the experience in other emerging European economies. Interestingly, the post-crisis credit bust has been milder and the share of nonperforming loans (NPLs) rose significantly less in the Western Balkan countries than in CESEE EU Member States following the global financial crisis. The IMF attributes this different experience to the fact that the inflows into the banking system of the Western Balkan countries largely stemmed from FDI and equity investment rather than borrowing from parent banks and wholesale funding markets. However, while NPLs have started to come down in the CESEE EU Member States, in the Western Balkans they remain at post-crisis peaks, and in some countries they are still increasing. Hence NPLs will continue to weigh on bank profitability and credit growth if left unresolved. Tackling this problem will require better collateral enforcement, improved insolvency frameworks and the clearing of bottlenecks in overloaded court systems. In addition to reforms to strengthen the supervision and regulation of financial institutions, the development of nonbank financial markets would help diversify sources of funding.

*Johanna Jaeger* (World Bank) presented research on financial inclusion, i.e. the extent of access to banking services for households and firms. Throughout the Western Balkans, households' access to finance remains comparably low by Western European standards, in particular the access of poor households and women is constrained. Low levels of saving via formal channels can be partly explained by a lack of trust in financial institutions and low financial literacy. But also for enterprises, constrained access to financial services, in particular credit, remains a key obstacle to business growth. World Bank survey data confirm a strong dependence on internal funds for financing investment. Policy responses should therefore address information asymmetries, weaknesses in NPL resolution and collateral utilization, as well as the provision of new financing sources and products, and the strengthening of financial education.

*Elisabeth Beckmann* (OeNB) discussed the relative importance of demand and supply factors in explaining the high incidence of foreign currency borrowing by Western Balkan households. Research based on microdata from the OeNB Euro Survey confirms that households' foreign currency loan demand is driven by interest rate differentials, a lack of trust in the stability of the local currency, exchange rate volatility, a lack of knowledge of exchange rate risk, the widespread usage of euro cash and a preference for foreign currency deposits. Moreover, results indicate that most borrowers have had the chance to choose the loan currency. On the other hand, the actual incidence of foreign currency loans is higher than suggested by demand. This indicates that banks also play a role in foreign currency lending dynamics. Interestingly, Elisabeth Beckmann and her coauthors Anita Roitner and Helmut Stix do not find a significant difference between domestically and foreign-owned banks with regard to loan currencies, neither for consumption loans nor for mortgages. Finally, their econometric analysis based on microdata shows that high and increasing NPLs of households in Western Balkan countries can only be partly explained by foreign currency borrowing. Negative income shocks seem to be the most important determinant of households' arrears.

## High-level panel discussion – policy challenges and solutions ahead

The conference concluded with a high-level panel discussion chaired by *Poul Thomsen* (IMF) and attended by Božidar Đjelić (Managing Director, Lazard), Ewald Nowotny (Governor, OeNB), Jeffrey Sachs (Director, Earth Institute, Columbia University), Zoran Stavreski (Minister of Finance, FYR Macedonia) and Boris Vujčić (Governor, Croatian National Bank). Discussants agreed that it is the incomplete nature of institutional and structural reforms undertaken and doubts about the EU integration perspective that is holding the region back. Without a courageous reform push, Western Balkan countries cannot expect to attract the scale of investment flows that is needed to finance faster and at the same time sustainable growth and to join the European Union, and they risk staying stuck at income levels that are less than one-third of those observed in Western Europe. *Božidar Đjelić* stressed that economic reform must encompass political reforms as well, fostering democracy and entrepreneurship and pushing back vested interests. Governor *Ewald Nowonty* recommended holding on to the perspective of EU membership. Institutional and structural reforms are beneficial for the Western Balkans beyond the envisaged EU membership. Governor *Boris Vujčić* argued that postponing structural reforms implies a more disadvantageous position in the future and thus even more efforts to catch up. Western Balkan countries can learn a lot from the experience of fellow CEE economies and leapfrog in their development if they dare to "think big." Similarly, Minister *Zoran Stavreski* advised policymakers to be committed to the reform agenda and not give in to vested interests. Otherwise one risks missing the major promises of the transformation and catching-up process. *Jeffrey Sachs* elaborated on the economically unfavorable historical and institutional legacies and some geopolitical aspects of the economic development in the Western Balkans. He emphasized the need to intensify efforts for a speedy EU enlargement and encouraged fostering intraregional cooperation with respect to investing in infrastructure and accessing new markets in neighbor regions.

# 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 | 3.4 | 3.7 | 2.5 | 1.6 | 1.4 | 1.9 |
| Bosnia and Herzegovina | 5.6 | –2.7 | 0.8 | 1.0 | –1.2 | 2.5 | 1.4 |
| Kosovo | 7.2 | 3.6 | 3.3 | 4.4 | 2.8 | 3.4 | 4.5 |
| 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 | 1.4 |
| 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, European Commission.*

Table 2

### Industrial production[1]

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| | *Annual real change in %* | | | | | | |
| Albania | 20.2 | 4.2 | 36.2 | 19.0 | 15.7 | 28.3 | 1.9 |
| Bosnia and Herzegovina | 10.3 | –6.5 | 4.3 | 2.4 | –3.9 | 5.2 | 0.2 |
| Kosovo[2] | x | –1.5 | 1.8 | –5.7 | –3.3 | 0.0 | 10.0 |
| 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 | 10.7 | –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, European Commission.*

[1] *Where available according to NACE Rev. 2 classification.*
[2] *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 | 2.3 | 9.5 | 1.8 |
| Bosnia and Herzegovina | 16.7 | 8.1 | 1.1 | 4.5 | 1.5 | 0.1 | –0.2 |
| Kosovo[1] | x | 22.8 | 12.3 | 13.4 | –0.8 | –1.2 | 16.4 |
| 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 | 30.0 |
| 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 | 19.0 |
| Serbia | 13.6 | 16.1 | 19.2 | 23.0 | 23.9 | 22.1 | 17.6 |
| 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[1]

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| | *Period average, annual change in %* | | | | | | |
| Albania | 6.5 | –1.6 | 0.3 | 2.6 | 1.1 | –0.5 | 0.3 |
| Bosnia and Herzegovina | 8.6 | –3.4 | 1.0 | 5.5 | 0.3 | –1.8 | –0.5 |
| Kosovo | 1.3 | 3.8 | 4.7 | 5.7 | 1.7 | 2.5 | –0.6 |
| 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] Where available according to NACE Rev. 2 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 | –19.5 | –21.4 |
| Bosnia and Herzegovina | –41.9 | –31.4 | –29.8 | –31.4 | –31.1 | –27.8 | –30.9 |
| Kosovo | –42.4 | –40.5 | –39.6 | –42.5 | –40.5 | –37.5 | –36.6 |
| FYR Macedonia | –28.6 | –25.8 | –21.6 | –25.2 | –26.5 | –22.9 | –21.7 |
| Montenegro | –65.6 | –44.3 | –40.8 | –40.4 | –44.1 | –39.9 | –40.3 |
| 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 | –5.8 |

*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 | –10.7 | –13.0 |
| Bosnia and Herzegovina | –14.1 | –6.5 | –6.2 | –9.6 | –8.9 | –5.7 | –7.9 |
| Kosovo | –11.9 | –9.2 | –11.7 | –13.7 | –7.5 | –6.4 | –7.9 |
| FYR Macedonia | –12.7 | –6.8 | –2.0 | –2.5 | –2.9 | –1.8 | –1.3 |
| Montenegro | –49.8 | –27.9 | –22.9 | –17.7 | –18.7 | –14.6 | –15.3 |
| 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 | –4.0 |

*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 | 9.7 | 8.8 |
| Bosnia and Herzegovina | 5.4 | 1.4 | 2.4 | 2.7 | 2.1 | 1.6 | . . |
| Kosovo | 9.5 | 7.1 | 8.4 | 8.0 | 4.5 | 5.3 | 2.7 |
| FYR Macedonia | 5.9 | 2.1 | 2.3 | 4.6 | 1.5 | 3.1 | 3.1 |
| Montenegro | 21.2 | 36.9 | 18.5 | 12.4 | 15.3 | 10.1 | . . |
| Serbia | 6.0 | 4.6 | 3.4 | 5.8 | 0.9 | 2.3 | . . |
| 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 | 20.3 | 21.4 |
| Bosnia and Herzegovina | 25.2 | 25.3 | 25.7 | 24.3 | 24.7 | 26.3 | 29.2 |
| Kosovo | × | 14.4 | 14.4 | 11.9 | 16.6 | 15.0 | 15.2 |
| FYR Macedonia | 20.1 | 21.1 | 20.9 | 23.9 | 25.3 | 22.2 | 26.0 |
| Montenegro | 7.0 | 5.8 | 5.3 | 5.3 | 5.9 | 5.9 | 5.9 |
| Serbia | 23.5 | 33.5 | 32.1 | 34.4 | 32.5 | 31.3 | 29.6 |
| 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 | 57.4 | 63.5 | 66.6 |
| Bosnia and Herzegovina | 49.0 | 55.0 | 51.6 | 48.9 | 52.2 | 50.8 | 53.9 |
| Kosovo | 18.9 | 29.1 | 30.9 | 29.7 | 30.0 | 30.0 | 31.0 |
| FYR Macedonia | 48.8 | 55.9 | 57.8 | 64.2 | 68.2 | 64.3 | 69.8 |
| Montenegro[1] | 15.6 | 23.5 | 29.4 | 32.9 | 41.1 | 43.1 | 45.0 |
| Serbia | 62.6 | 73.4 | 79.9 | 72.2 | 81.2 | 75.4 | 81.7 |
| 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 | –4.9 | –5.1 |
| Bosnia and Herzegovina | –2.2 | –4.4 | –2.5 | –1.3 | –2.0 | –2.2 | –1.8 |
| Kosovo | x | 4.1 | –2.6 | –1.7 | –2.6 | –3.1 | –2.2 |
| FYR Macedonia | –0.9 | –2.7 | –2.4 | –2.6 | –3.9 | –4.0 | –4.2 |
| Montenegro | –0.4 | –5.7 | –4.9 | –5.4 | –5.6 | –5.3 | –1.5 |
| 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, European Commission.*

Table 13

## Gross general government debt

| | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|---|---|---|---|---|---|---|---|
| | *% of GDP* | | | | | | |
| Albania | 55.1 | 59.7 | 57.7 | 59.4 | 62.0 | 70.2 | 69.8 |
| Bosnia and Herzegovina | 30.7 | 36.0 | 39.1 | 40.8 | 44.6 | 42.5 | 46.0 |
| Kosovo | x | 6.1 | 5.9 | 5.3 | 8.1 | 8.9 | 10.4 |
| FYR Macedonia | 27.7 | 31.4 | 34.6 | 32.0 | 38.3 | 40.4 | 45.1 |
| Montenegro | 29.0 | 38.2 | 40.9 | 46.0 | 54.0 | 56.3 | 59.0 |
| 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 | 72.8 |

*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) | 11.2 | 6.0 | 12.2 | 9.7 | 4.4 | 5.3 | 10.5 |
| Montenegro (M2) | –41.5 | –7.0 | 3.4 | 2.1 | 8.4 | 4.8 | . . |
| Serbia (M2) | 9.8 | 21.5 | 12.9 | 10.3 | 9.4 | 4.7 | . . |
| Ukraine (M3) | 30.2 | –5.5 | 22.7 | 14.7 | 12.8 | 17.6 | 5.3 |

*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

See *www.oenb.at* for further details.

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

This report informs readers about the Eurosystem's monetary policy and underlying economic conditions as well as about the OeNB's role in maintaining price stability and financial stability. It also provides a brief account of the key activities of the OeNB's core business areas. The OeNB's financial statements are an integral part of the report.

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

## Konjunktur aktuell — German | seven times a year

This online publication provides a concise assessment of current cyclical and financial developments in the global economy, the euro area, Central, Eastern and Southeastern European countries, and in Austria. The quarterly releases (March, June, September and December) also include short analyses of economic and monetary policy issues.

*http://www.oenb.at/Publikationen/Volkswirtschaft/Konjunktur-aktuell.html*

## Monetary Policy & the Economy — English | quarterly

This publication assesses cyclical developments in Austria and presents the OeNB's regular macroeconomic forecasts for the Austrian economy. It contains economic analyses and studies with a particular relevance for central banking and summarizes findings from macroeconomic workshops and conferences organized by the OeNB.

*http://www.oenb.at/en/Publications/Economics/Monetary-Policy-and-the-Economy.html*

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

This online publication provides a snapshot of the Austrian economy based on a range of structural data and indicators for the real economy and the banking sector. Comparative international measures enable readers to put the information into perspective.

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

## Financial Stability Report — English | twice a year

The reports section of this publication analyzes and assesses the stability of the Austrian financial system as well as developments that are relevant for financial stability in Austria and at the international level. The special topics section provides analyses and studies on specific financial stability-related issues.

*http://www.oenb.at/en/Publications/Financial-Market/Financial-Stability-Report.html*

## Focus on European Economic Integration — English | quarterly

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.

*http://www.oenb.at/en/Publications/Economics/Focus-on-European-Economic-Integration.html*

## Statistiken – Daten & Analysen — German | quarterly

This publication contains analyses of the balance sheets of Austrian financial institutions, flow-of-funds statistics as well as external statistics (English summaries are provided). A set of 14 tables (also available on the OeNB's website) provides information about key financial and macroeconomic indicators.

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

## Statistiken – Daten & Analysen: Sonderhefte
## Statistiken – Daten & Analysen: Special Issues

German | irregularly
English | irregularly

In addition to the regular issues of the quarterly statistical series "Statistiken – Daten & Analysen," the OeNB publishes a number of special issues on selected statistics topics (e.g. sector accounts, foreign direct investment and trade in services).
*http://www.oenb.at/en/Publications/Statistics/Special-Issues.html*

## Research Update

English | quarterly

This online newsletter informs international readers about selected research findings and activities of the OeNB's Economic Analysis and Research Department. It offers information about current publications, research priorities, events, conferences, lectures and workshops. Subscribe to the newsletter at:
*http://www.oenb.at/en/Publications/Economics/research-update.html*

## CESEE Research Update

English | quarterly

This online newsletter informs readers about research priorities, publications as well as past and upcoming events with a regional focus on Central, Eastern and Southeastern Europe. Subscribe to the newsletter at:
*http://www.oenb.at/en/Publications/Economics/CESEE-Research-Update.html*

## OeNB Workshops Proceedings

German, English | irregularly

This series, launched in 2004, documents contributions to OeNB workshops with Austrian and international experts (policymakers, industry experts, academics and media representatives) on monetary and economic policymaking-related topics.
*http://www.oenb.at/en/Publications/Economics/Proceedings-of-OeNB-Workshops.html*

## Working Papers

English | irregularly

This online series provides a platform for discussing and disseminating economic papers and research findings. All contributions are subject to international peer review.
*http://www.oenb.at/en/Publications/Economics/Working-Papers.html*

## Proceedings of the Economics Conference

English | annually

The OeNB's annual Economics Conference provides an international platform where central bankers, economic policymakers, financial market agents as well as scholars and academics exchange views and information on monetary, economic and financial policy issues. The proceedings serve to document the conference contributions.
*http://www.oenb.at/en/Publications/Economics/Economics-Conference.html*

## Proceedings of the Conference on European Economic Integration

English | annually

The OeNB's annual Conference on European Economic Integration (CEEI) deals with current issues with a particular relevance for central banking in the context of convergence in Central, Eastern and Southeastern Europe as well as the EU enlargement and integration process. For an overview see:
*http://www.oenb.at/en/Publications/Economics/Conference-on-European-Economic-Integration-CEEI.html*
The proceedings have been published with Edward Elgar Publishers, Cheltenham/UK, Northampton/MA, since the CEEI 2001.
*www.e-elgar.com*

## Publications on banking supervisory issues

German, English | irregularly

Current publications are available for download; paper copies may be ordered free of charge.
See *www.oenb.at* for further details.
*http://www.oenb.at/en/Publications/Financial-Market/Publications-of-Banking-Supervision.html*

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