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Call for entries: Olga Radzyner Award 2016

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 2016, 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 2016" – to the Oesterreichische Nationalbank, Foreign Research Division, POB 61, 1011 Vienna, Austria. Entries for the 2016 award should arrive by September 16, 2016, 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 +43-1-40420-5226).

Call for applications: Visiting Research Program

The Oesterreichische Nationalbank (OeNB) invites applications from external researchers (EU or Swiss nationals) for participation in a Visiting Research Program established by the OeNB's Economic Analysis and Research Department. The purpose of this program is to enhance cooperation with members of academic and research institutions (preferably postdoc) who work in the fields of macroeconomics, international economics or financial economics and/or 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 2017 should be e-mailed to *eva.gehringer-wasserbauer@oenb.at* by November 1, 2016.

Applicants will be notified of the jury's decision by mid-December. The following round of applications will close on May 1, 2017.

Recent economic developments and outlook

Developments in selected CESEE countries:

Dynamic, domestic demand-driven growth in an adverse international environment[1,2]

1 Regional overview

Despite a difficult international environment…

A persistent oil glut and the economic slowdown in many emerging economies led to a renewed drop in oil prices in late 2015, pushing down inflation rates around the globe. In the euro area, the ECB reacted with further monetary easing that included rate cuts and increased asset purchases. In general, economic dynamics at the end of 2015 had turned out to be weaker than expected. This is true not only for the euro area, but also for many advanced and emerging market economies around the world, confirming the continued fragility of global growth momentum. Trade growth slowed down, reflecting rebalancing in China as well as the sharp downscaling of investment in commodity-exporting countries. Bouts of financial market volatility were observed in late 2015 amid rising global risk aversion, sagging global equity prices, widening credit spreads, and historically low yields for safe-haven government bonds. These phenomena underline the high degree of uncertainty in the world economy. In Europe, this uncertainty was amplified by a series of political events, including the upcoming Brexit referendum, the ongoing conflict in eastern Ukraine, the war in Syria and the related refugee crisis, as well as the deteriorating relations between Turkey and Russia.

…growth develops favorably throughout most of the CESEE region

While this sketch of global economic conditions does not imply a very supportive international environment for CESEE countries, developments in the second half of 2015 were still rather favorable. Russia, of course, represents an outlier, as it was directly affected by several of the above-mentioned factors, especially the further fall in the oil price, causing the country to slide into a deep recession in 2015 (–3.7%). In the other countries of the region, however, dynamics remained solid, boosting whole-year growth in 2015 to an average of 3.7% in the CESEE EU Member States and Turkey. In several countries, GDP dynamics reached heights last seen in 2008. Growth was especially dynamic in the Czech Republic and Turkey (above 4%), but was also strong in Poland, Romania and Slovakia. With a growth rate of 1.6%, Croatia represented the country with lowest growth in 2015; nevertheless, Croatia managed a turnaround from a recession that had lasted for six years.

Domestic demand confirms its position as the most important driver of growth

The economic buoyancy of the region was supported by the strong development of domestic demand, which became the most important component of GDP growth in all countries under observation besides Russia. While both private consumption and gross fixed capital formation (GFCF) contributed notably to growth, the latter displayed an especially remarkable momentum. Investment growth accelerated in most countries. The expansion even reached double digits in Slovakia and Romania in the final quarter of 2015.

[1] *Compiled by Josef Schreiner with input from Stephan Barisitz, Elisabeth Beckmann, Sebastian Beer, Mariya Hake, Antje Hildebrandt, Mathias Lahnsteiner, Thomas Reininger, Caroline Stern and Zoltan Walko.*

[2] *Cutoff date: April 6, 2016. This report focuses primarily on data releases and developments from October 2015 up to the cutoff date and covers Slovakia, Slovenia, Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania, as well as Turkey and Russia. The 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.*

Investment growth accelerates

The strength of investments was underpinned in particular by an increased use of EU funds, which, coupled with a fledgling recovery in real estate markets, also had some positive impact on the construction sector. 2015 marked the last year of overlapping programming periods, as CESEE countries were still able to draw on EU funds from the 2007–2013 multiannual financial framework alongside the current 2014–2020 framework. Positive developments, however, were no longer confined to public investments only. On the production side, industrial production expanded powerfully, pushing up capacity utilization. In several countries, utilization rates increased to above 80%, fueling private investment expenditure. The financing of new investments was made easier by rising corporate profitability (possibly related to falling input prices) as well as by the low interest rate environment against the background of an accommodative monetary policy stance at home and abroad. Furthermore, capital formation benefited from stronger economic dynamics in the euro area in 2015 than in 2014 and from positive economic sentiment that was above its long-term average in most countries under observation.

Positive labor market developments bolster private consumption

Private consumption benefited from two factors in particular: improving labor market conditions and rising real wages. Unemployment rates have been falling consistently since early 2013 in most CESEE countries, substantially so in some. For example, Hungary's unemployment rate in seasonally adjusted terms declined from 11.1% in January 2013 to 5.9% in February 2016, the lowest rate since early 2004. The decrease was also considerable in Bulgaria, Poland and Slovakia. The Czech Republic chalked up an unemployment rate of 4.5% in February 2016, a performance topped only by Germany in the EU. At the same time, unemployment also declined among the most vulnerable age cohorts, namely young persons (below 25 years) and older persons (above 50 years). Long-term unemployment generally remained elevated, but some favorable trends could also be observed (e.g. in Slovakia, Bulgaria and Poland). Employment expanded noticeably in all countries, making the second half of 2015 a generally very successful period in terms of labor market developments. Against this backdrop, nominal wage growth was buoyant, amounting to somewhat above 4% in the region on average during the second half of 2015. Romania even reported double-digit wage growth in the final quarter of 2015 (also caused by a hike in the minimum wage). Wage growth was also notably above average in the Czech Republic, Bulgaria and Slovakia. Real wage growth was further boosted by low or even negative inflation rates, especially in Central and Southeastern Europe (see also the description of inflation rates below). All of the above developments had a positive impact on consumer sentiment, which reached the highest level since late 2008 at the end of 2015.

The external sector's net contribution to growth remains modest…

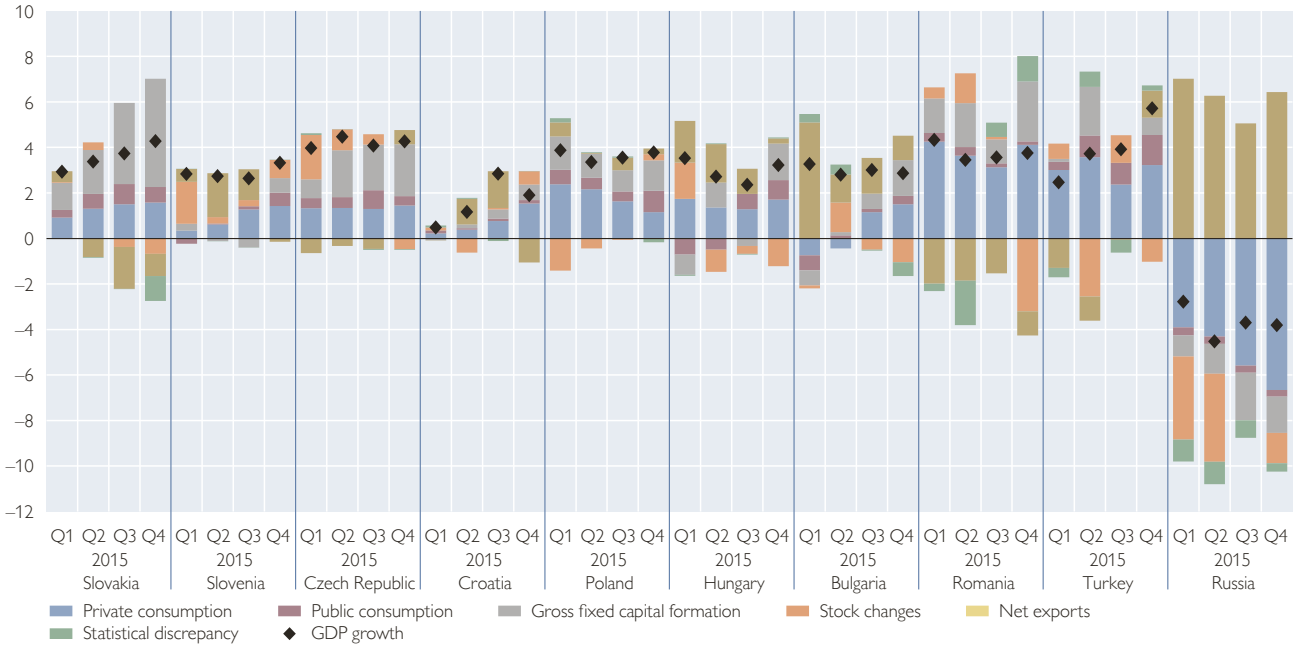
The developments in the second half of 2015 underline the ongoing recalibration of the CESEE region's growth model toward domestic demand. The strong growth of private consumption and investment in turn fueled imports in the review period; Slovakia and Croatia recorded double-digit import growth rates. Import developments were still very much driven by imports of consumption goods, but the recovery of GFCF should also boost imports of capital goods in the future.

Against this background, the contribution of net exports lost further importance for GDP developments, declining during the review period in most countries and lingering around zero in the fourth quarter of 2015. A more notable positive contribution in the last quarter of 2015 was reported for Bulgaria and Turkey. However, net exports pushed up GDP by only around 1 percentage point in these

Chart 1

GDP growth and its main components

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



Source: Eurostat, national statistical offices.

countries, too, much less than in the first years after the crisis. In Russia, the positive contribution of net exports to economic growth was sizeable, given currency depreciation and weak domestic demand.

…despite a solid export performance

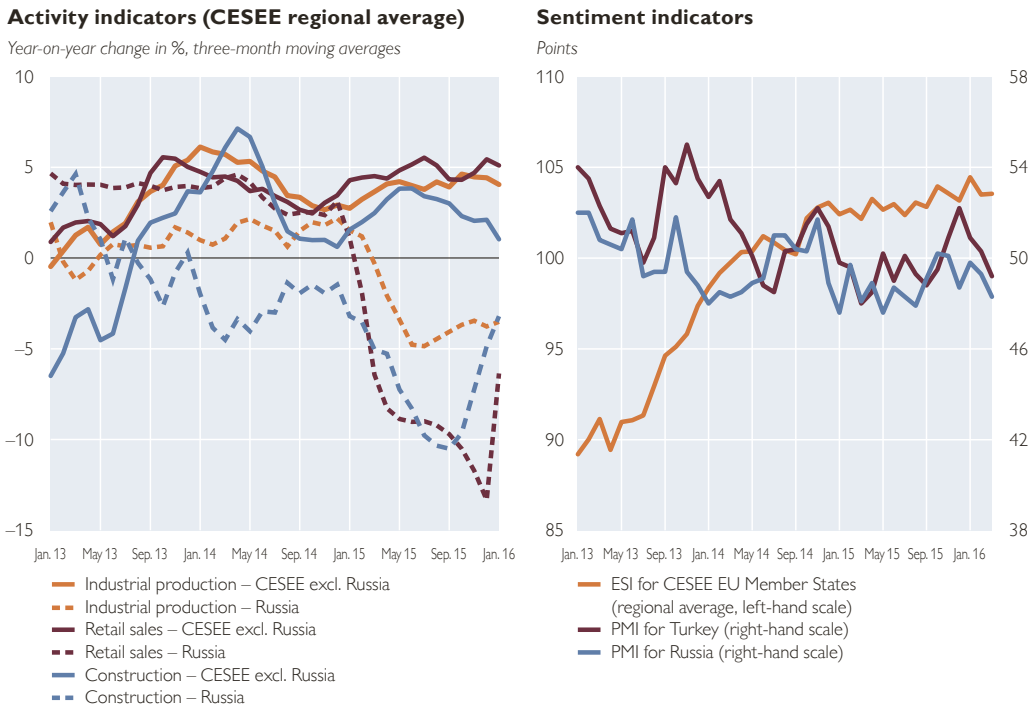
At the same time, real exports continued to develop favorably and remained an important backbone for economic developments. The region's exports benefited from the pickup in economic dynamics in the euro area in 2015. The development of unit labor costs (ULCs) in manufacturing (measured in euro) was less uniform. Six of the countries under review were able to report further (small) gains in price competitiveness or a stable competitive position vis-à-vis the euro area: Slovenia, Hungary, Poland and Croatia managed to keep labor cost growth in check amid ongoing notable productivity advances; Russia and Turkey benefited from marked currency depreciation. The other four countries lost some competitive edge. This was a rather recent phenomenon in Slovakia and the Czech Republic (mainly confined to the final quarter of 2015 and possibly of a temporary nature). In Bulgaria and Romania, however, the process has already been lasting for several quarters and is already visible in a substantial deceleration of export growth. Both countries reported high wage growth coupled with weak productivity developments during the review period.

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

High-frequency activity indicators suggest a broadly steady pace of economic dynamics in the first quarter of 2016. Both industrial production and retail sales posted a stable development in the review period, expanding by 4.1% and 5.1%, respectively, in January 2016. Construction output lost some steam. However, it still grew by 1% in the region on average. At the country level, industrial production is running smoothly throughout CESEE. All countries reported positive

Chart 2

Leading indicators



Source: Eurostat, wiiw, European Commission, Markit.

growth rates that did not deviate substantially from the regional average. Only the Czech Republic and Romania reported some deceleration of growth to around 1.5% in recent months. By contrast, retail sale developments were more heterogeneous. While all countries again reported positive growth rates, the rates were more dispersed, ranging from 0.5% in Bulgaria to 14.4% in Romania in January 2016. This dispersion is even more pronounced for construction output, which developed in a range from –13% in Slovenia to 19.5% in Slovakia.

Still mired in recession, Russia was a clear outlier from the regional picture. All activity indicators contracted in January 2016. However, retail sales and construction output have rebounded in recent months, paving the way for a less gloomy GDP development in the first quarter of 2016.

Economic sentiment underlines the favorable situation of CESEE economies. The European Commission's Economic Sentiment Indicator (ESI) stood steady at around 104 points throughout the review period (average for the CESEE EU Member States). This represents a level last seen in late 2008. The Purchasing Managers' Index (PMI) figures for Russia have remained at or below 50 (the threshold indicating an expansion) since late 2014, the start of the Ukraine crisis. In the case of Turkey, PMI readings improved perceptibly in the final quarter of 2015 before declining again until March in parallel to rising political and security risks.

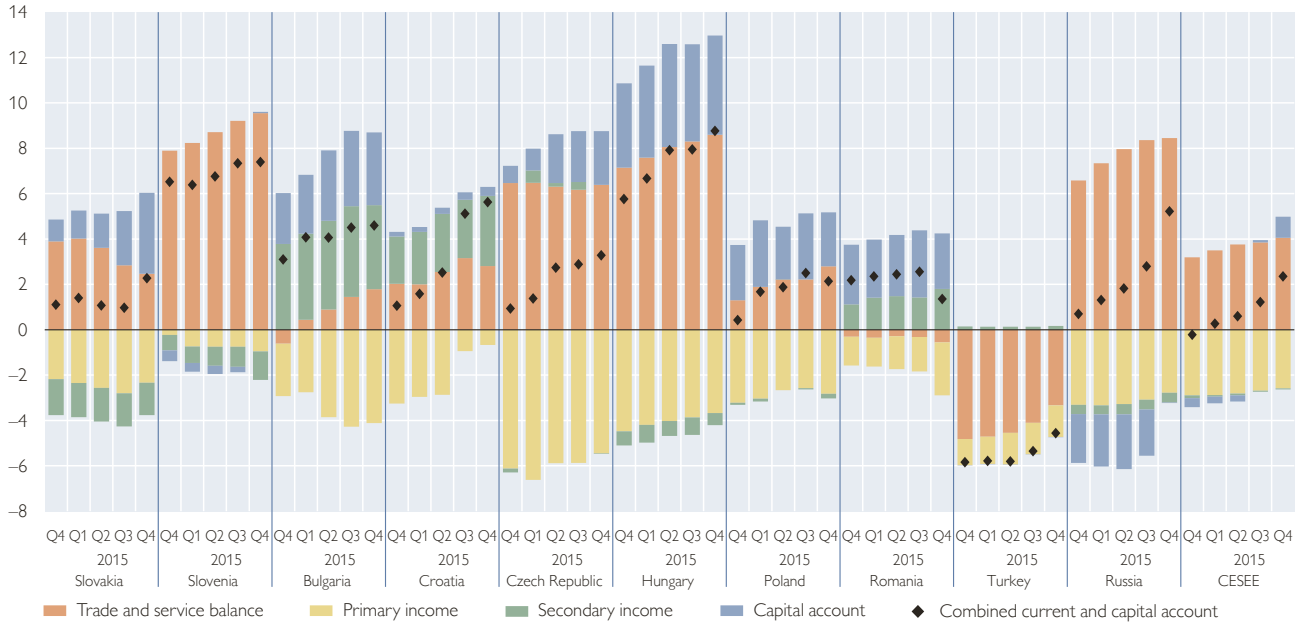
The external position of the CESEE region improves further

The combined current and capital account balance for the region as a whole improved further in the review period, increasing from a surplus of 0.6% of GDP in the second quarter of 2015 to 2.3% of GDP in fourth quarter of 2015 (four-quarter moving sums). This development was mainly driven by the capital account deficit

Chart 3

Combined current and capital account balance

% of GDP, four-quarter moving sum



Source: Eurostat, IMF, national central banks.

turning into a surplus as outflows from Russia decreased and inflows into the other countries increased, given drawings on EU funds. The goods and services balance and the balance on primary income improved marginally as well.

With the exception of Romania, all individual countries of the region reported a better external accounts position at the end of 2015 than half a year earlier. In Romania, higher outflows from primary income (especially related to profit repatriation by foreign-owned firms) caused the combined current and capital account surplus to decrease to 1.3% of GDP in the final quarter of 2015. Improvements in the other countries of the region were often related to higher surpluses or lower deficits in the trade balance. Beside the above-mentioned factors bolstering exports, terms of trade effects played some role in the review period. In the Czech Republic and especially in Croatia, the primary income deficit declined noticeably, driven by lower profit repatriation and in Croatia also by some reinvested earnings. Turkey remained the only country to report a shrinking but still sizeable combined current and capital account deficit.

Financial account developments remain heterogeneous

The financial account position of the ten CESEE countries as a whole remained broadly unchanged at 7.1% of GDP in the fourth quarter of 2015 compared to 7.3% of GDP in the second quarter (four-quarter moving sums). Two developments of individual components of the financial account canceled each other out: Net portfolio investments increased just as much as net FDI decreased. With respect to FDI, the region again became a net debtor[3] in the review period.

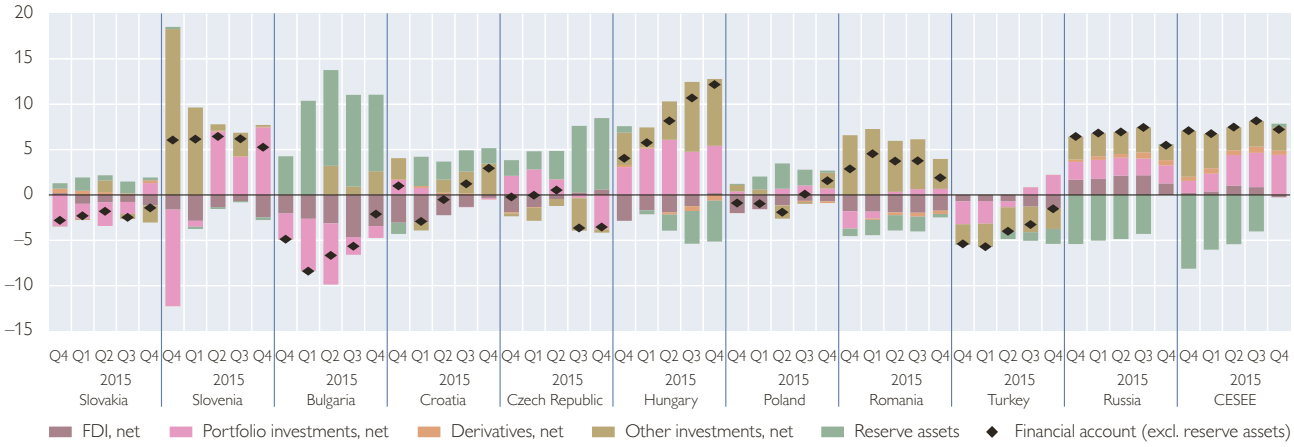
Developments in individual countries were heterogeneous. The financial account deteriorated especially in Romania, Russia and the Czech Republic, caused

[3] *The net incurrence of liabilities outweighs the net acquisition of assets.*

Chart 4

Financial account balance

% of GDP, four-quarter moving sum



Source: National central banks.

mainly by other investments in the former two countries and by portfolio investments in the latter. While Russia and Romania remained net creditors vis-à-vis the rest of the world, the Czech Republic became a net debtor.

Bulgaria, Croatia, Hungary, Poland and Turkey reported stronger improvements of the financial account, mostly related to FDI and to a better position in other investments traceable primarily to the decline in external liabilities of credit institutions. Only in Bulgaria and Turkey was the improvement driven mainly by portfolio investments. In the fourth quarter of 2015, Croatia and Poland became net creditors, while Hungary remained in a net creditor position. Bulgaria and Turkey continued to incur more liabilities than to acquire assets at the end of 2015.

Declining energy prices hold back price dynamics in the CESEE EU Member States

Declining energy prices kept inflation rates in the CESEE EU Member States in negative territory throughout the review period. Average annual inflation amounted to –0.5% in February 2016 and has hovered around this level during the past months without clearly trending up or down. Deflation was most pronounced in Romania, where a cut in the standard VAT rate from 24% to 20% in January 2016 put a further damper on prices. The Czech Republic and Hungary were the only countries that reported months with (moderately) positive inflation rates.

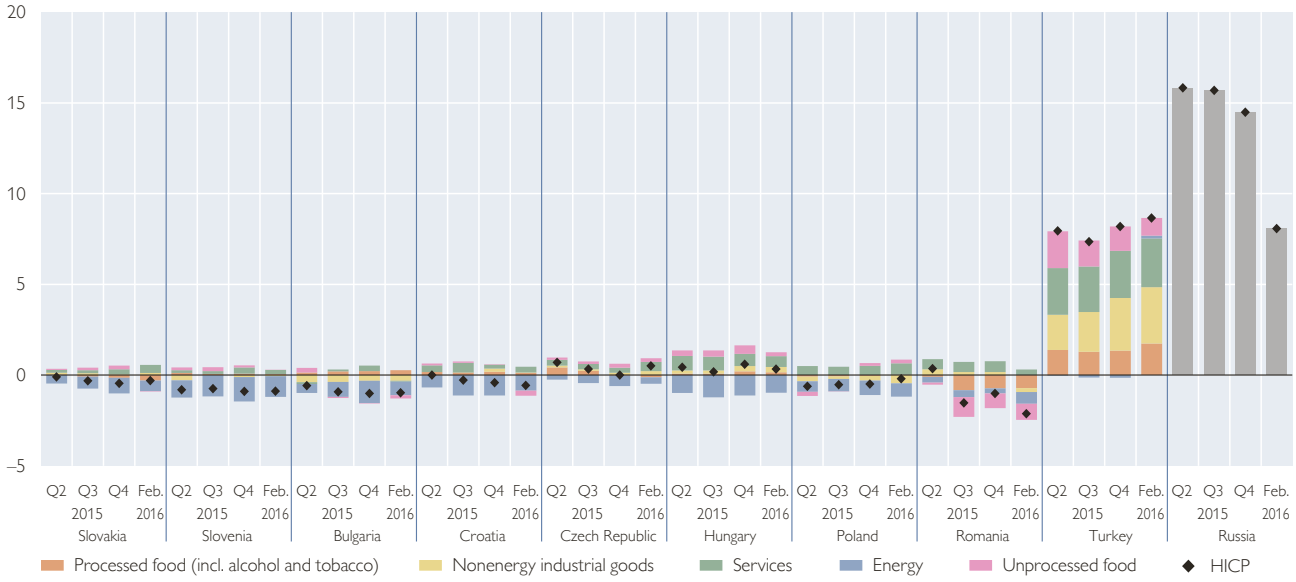
While declining prices were clearly a function of deflationary pressure from the energy component of the HICP, other components did not add much dynamism to price developments either. Neither food nor industrial goods made a substantially positive contribution to inflation in most countries. Only services pushed prices up somewhat in the CESEE EU Member States. Against this background, core inflation rates remained low but positive in the region. Only Romania reported deflation also for the core components of the HICP.

In Turkey, inflation came in at 8.7% in February 2016 and displayed some upward trend in the review period (starting at 7.1% in August 2015). Price rises thus remained clearly above 7%, the central bank's upper bound for its inflation target to be met by December 2015. Inflation was driven especially by industrial goods. Price developments of this HICP component were influenced by the lagged effects

Chart 5

HICP inflation and its main drivers

Contribution to year-on-year change in HICP in percentage points; HICP in %



Source: Eurostat.

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

of the Turkish lira depreciation throughout 2015. Most other components, however, also contributed somewhat greater shares to prices rises than in the first half of 2015.

In Russia, the inflation rate came down from 15.8% in August 2015 to 8.1% in February 2016 despite the further depreciation of the ruble. The drop in annual inflation was aided by a base effect (the impact of the sharp price rise in late 2014 dissipated), persisting weak demand and the shrinking ratio of imports to GDP.

Monetary policy stays accommodative

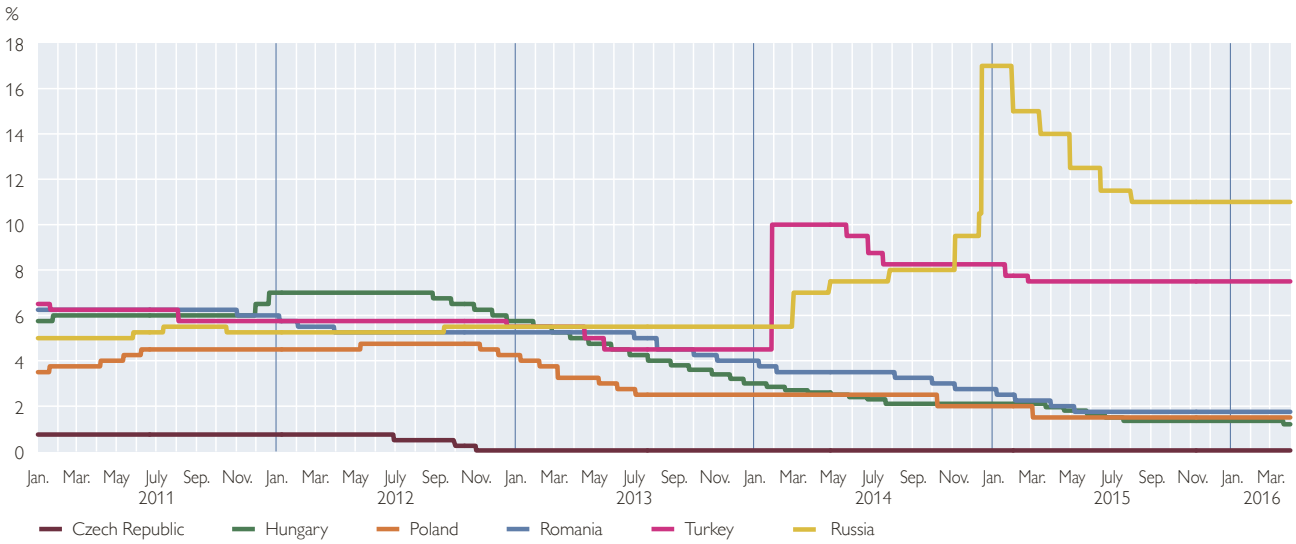
Against the backdrop of disinflation or deflationary trends, the central banks of CESEE countries continued to pursue a policy of monetary accommodation (see chart 6) and retained policy rates at historically low levels. The Hungarian central bank even cut its policy rate by 15 basis points to 1.2% and lowered the overnight deposit rate to below zero (–0.05%) in March 2016. The Czech Republic's policy rate has been standing at "technically zero" since October 2012. In November 2013, the Czech National Bank (CNB) had decided to use the exchange rate as an additional instrument to ease monetary conditions and to prevent the exchange rate of the koruna from appreciating to levels below CZK 27 per EUR 1. In February 2016, the CNB ruled out a discontinuation of the exchange rate commitment before the start of 2017. In the review period, the CNB intervened several times in the foreign exchange market, buying a total of EUR 7 billion. The CNB had not intervened in defense of its target before July 2015. Russia, Turkey and Poland kept their main policy rates on hold in the review period.

Credit developments remain heterogeneous

Domestic credit developments (nominal lending to the nonbank private sector adjusted for exchange rate changes) were somewhat more dynamic in the review period in several countries of the region. This is especially true for Slovakia and the Czech Republic, where credit growth has been accelerating slowly but steadily since

Chart 6

Policy rate developments in CESEE



Source: National central banks.

2013 and came in at 9.7% and 7.4%, respectively, in February 2016. In Slovakia, especially corporate credit expanded swiftly, mirroring the strong increase of GFCF. Solid credit developments in both countries were fueled by more favorable expectations for general economic developments and a sound liquidity position. Furthermore, banking sectors are in healthy shape, with low nonperforming loan (NPL) ratios, sound profitability, deposit overhangs over credit, persistent competitive pressure as well as low stocks of loans denominated in foreign currency.

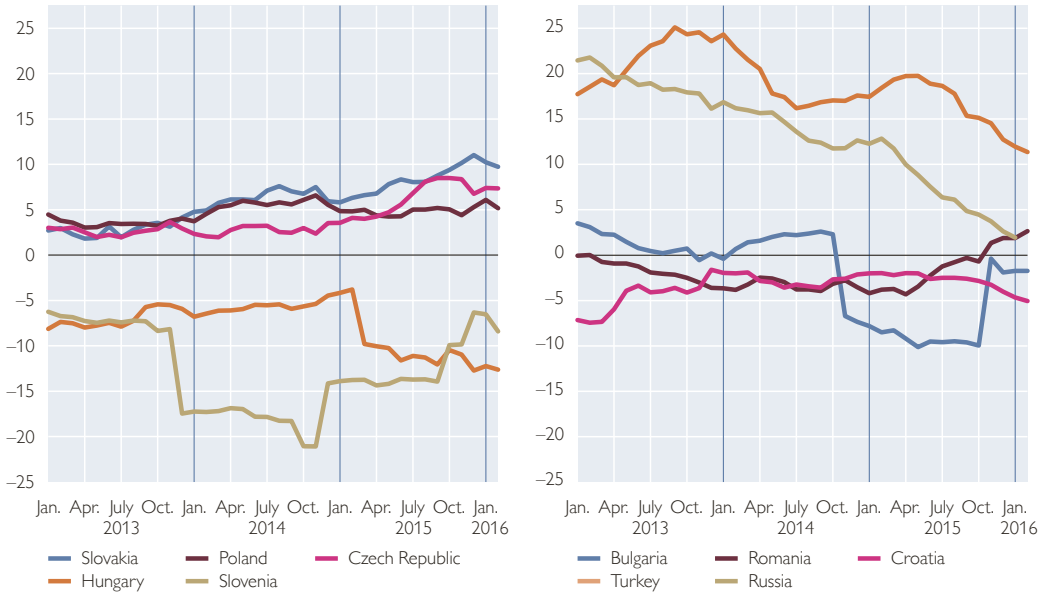
Credit growth was also rather swift in Poland. Key indicators of the country's banking sector, however, are somewhat weaker than in Slovakia and the Czech Republic. In Poland, the loan-to-deposit ratio remained above 100 and profitability deteriorated somewhat in 2015. Furthermore, the country still reports a substantial share of foreign currency loans (especially Swiss franc loans) in total loans. The discussion about a conversion of those loans is ongoing. So far, the central bank and the supervisory authority have assessed the respective legislative proposals as problematic for financial stability. These discussions have increased uncertainty and may have contributed to some tightening of lending standards.

Credit growth in Romania rebounded and came in at 2.6% in February 2016, reflecting strong consumption and wage growth, the surge of investments in the final quarter of 2015, as well as an ongoing NPL workout. Some more positive momentum was also observed in Slovenia: The expansion of credit to households turned mildly positive, which had a favorable impact on total credit to the private sector. But the overall credit stock continued to contract in the review period. Nevertheless, the country made some progress in cleaning up balance sheets, raising banking sector profitability and improving capitalization. Bulgaria also reported a moderate contraction of the credit stock. This development, however, was fueled by the base effect caused by the exclusion of Corporate Commercial Bank's assets from banking statistics after its license for conducting banking activities had been revoked in November 2014.

Chart 7

Growth of credit to the private sector

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



Source: National central banks.

In Hungary, credit growth remained firmly negative. The ongoing strong contraction was related to the conversion of foreign currency loans to households at an exchange rate below the prevailing market exchange rate in the first quarter of 2015 and in December 2015. In Croatia, the process of conversion and the partial write-off of loans in Swiss francs initiated in the last quarter of 2015 added to the impact of the debt overhang and the lack of collateral, thus causing credit growth to decline further in the last quarter of 2015. Credit growth moderated in Turkey and Russia. In Turkey, loan growth came down substantially from high levels against the background of macroprudential measures adopted in previous years. Against this background, consumer loan risk weights were adjusted to bolster consumer credit growth, which had dipped into negative territory. In Russia, the development was clearly related to the ongoing economic recession.

Lending surveys indicate a clear rise in credit demand

Lending surveys clearly indicated a pickup of demand for credit in the CESEE region. The development of supply conditions, however, was less straightforward. The most recent CESEE Bank Lending Survey of the European Investment Bank (EIB) found that demand for loans improved across the board in the second half of 2015. This marked the fifth consecutive semester of positive developments. All factors influencing demand made a positive contribution. At the same time, supply conditions only relaxed somewhat, thus increasing the demand-supply gap. NPLs, the regulatory environment and banks' capital constraints were perceived as the main factors adversely affecting supply conditions. Access to funding continued to become easier, supported by ready access to retail and corporate deposits, while intragroup funding contracted somewhat. For the first half of 2016, banks anticipate a further broad-based pickup in credit demand. Supply conditions are also

expected to ease further, the improvement, however, will continue to fall short of the improvement in demand conditions.

Country-level bank lending surveys support this general picture. Demand rose more or less uniformly in all countries and among all sectors. In most cases, supply conditions also improved. The extent of easing, however, was not uniform across the region. While some countries (e.g. the Czech Republic) reported a rather broad-based easing, the development tended to be confined to specific sectors or loan classes in most other countries (e.g. Bulgaria, Hungary and Romania). Banks generally expected those trends to go on in the coming months.

Unlike banks in the rest of the CESEE region, Turkish banks reported lower demand for household and especially for corporate loans (held back by lower demand for financing for investment). At the same time, credit standards for loans to enterprises were tightened, as the general perception of risk deteriorated (the general and the industry-specific risk outlook as well as the outlook for risk on the collateral).

Analyzing the operation of international banking groups in the region, the EIB survey found that banking groups continue to selectively reassess their country strategies and discriminate between countries of operation. Nevertheless, more than two-thirds of groups describe profitability in CESEE operations as outperforming the profitability of the group as a whole. This explains why a significant number of banking groups signal intentions to expand operations selectively. Market potential continues to differ significantly across countries.

Budgetary consolidation against the background of solid economic dynamics

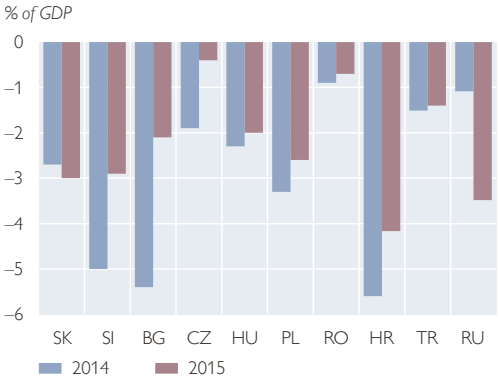
Solid economic dynamics had a positive impact on the budget balance in most countries. Deficits decreased most strongly in Slovenia and Bulgaria (by 2.1% and 3.7% percentage points of GDP, respectively). In both countries, deficits came down from elevated levels in 2014 that were related to one-off factors in connection with financial sector restructuring. Budget balances were also aided by higher tax revenues following improved tax collection in Bulgaria and continued implementation of consolidation measures in Slovenia. Croatia and the Czech Republic also reported an above-average reduction of their budgetary gaps (by 1.4% and 1.5% percentage points of GDP, respectively). Revenue windfalls due to higher-than-expected growth and some containment of expenditure growth have lent support to public finances. The Czech Republic also benefited from falling interest expenditure.

Public finances in Russia were burdened by decreasing revenues, the recapitalization of banks and businesses and some investment expenditure front-loading, with the Reserve Fund being tapped substantially to cover the deficit. This led to an increase in the budget deficit by 2.4% percentage points of GDP.

Budget deficits ranged from –0.4% of GDP in the Czech Republic to –4.2% of GDP in Croatia. Apart from Croatia, no CESEE EU country reported a deficit of above 3% of GDP.

Chart 8

General government deficit



Source: Eurostat, European Commission.

Slovenia and Croatia remain the only CESEE EU countries still subject to an excessive deficit procedure (EDP). The target date for a correction stood at 2015 in the case of Slovenia and stands at 2016 in the case of Croatia. Given successful consolidation measures that led to a reduction of the budget deficit to 2.9% of GDP in 2015, the EDP for Slovenia might be abrogated in June 2016. It needs to be noted that in early March 2016, the Eurogroup called for additional structural efforts toward the medium-term objective and for compliance with the expenditure benchmark. Croatia's deficit currently stands at 4.2% of GDP and is projected to decrease only slowly.

Box 1

Ukraine: macroeconomic stabilization, but multifaceted challenges

After having declined by 6.8% in 2014, economic activity shrank by a further 9.9% in 2015. GDP dynamics in 2015 were driven by the positive growth contributions of inventories and the reduction of imports, while private consumption, gross fixed capital formation (GFCF) and exports continued to contribute negatively to overall GDP growth. Despite the deep GDP contraction, clear signs of macroeconomic stabilization arose, as seasonally adjusted GDP grew in quarter-on-quarter terms in the third and fourth quarters of 2015. The observation of the cease-fire agreement improved starting from September 2015, which certainly supported the bottoming out of the economy. Yet, the special monitoring mission of the Organization for Security and Co-operation in Europe (OSCE) has reported an increasing number of cease-fire violations since the beginning of 2016. Besides, hardly any progress has been made in implementing the Minsk II agreement, which comprises a complete cease-fire and further steps to settle the conflict in eastern Ukraine.

Meanwhile, disinflation, fiscal efforts and external adjustments underpin macroeconomic stabilization tendencies. After peaking at 60.9% in April 2015, inflation trended downward to 32.7% in February 2016. The National Bank of Ukraine has left its key policy rate unchanged at 22% since September 2015. The budget deficit came down to 2.3% of GDP in 2015. The current account deficit fell to 0.3% of GDP in 2015, while the combined current and capital account recorded a small surplus of 0.2% of GDP. The deficit in the trade and services balance improved, as imports declined more strongly than exports – a development to which the depreciation of the hryvnia contributed. Thanks to the current account adjustment and international financial support, official foreign exchange reserves went up from USD 5.6 billion in February 2015 to USD 13.5 billion in February 2016 (covering 3.6 months of future imports).

However, the four-year USD 17.5 billion IMF Extended Fund Facility (EFF), under which USD 6.7 billion have been disbursed so far, has been on hold, as the second review, on which discussions started in September 2015, has not been finalized yet. The IMF has been waiting for more clarity about the status of the government and for conditions enabling further talks that would pave the way for the completion of the review. In Kyiv, new coalition arrangements were under discussion following political shakeups that, inter alia, showed up in the resignation of the economy minister. In mid-April, the parliament finally approved a new government team. Volodymyr Groysman replaced Arseniy Yatsenyuk as prime minister.

In a noteworthy achievement, Ukraine made progress on the debt restructuring agreed under the EFF. The restructuring of privately held external sovereign debt was completed, but the dispute over the USD 3 billion Eurobond held by the Russian National Welfare Fund has continued. Russia was offered the same restructuring terms as private creditors, but rejected them. In February 2016, the Russian Ministry of Finance filed a lawsuit against Ukraine at the High Court in London over the nonpayment of the Eurobond that matured in December 2015. Although the IMF categorized this Eurobond as official debt, Ukraine's default on this instrument per se does not endanger the continuation of the IMF program, because the IMF changed its lending-into-arrears policy (arrears to official creditors are now accepted under certain circumstances).

After several parts of the EU-Ukraine Association Agreement (AA) had entered into force provisionally in November 2014, the Deep and Comprehensive Free Trade Area (DCFTA) started to be provisionally applied from January 2016. The DCFTA and other parts of the AA will continue to be applied provisionally for the time being, despite the negative outcome of the referendum on the EU-Ukraine AA in the Netherlands, where the AA has not been ratified. Against the background of the DCFTA, Russia repealed its free trade agreement with Ukraine, resulting in an increase of import duties. Moreover, Russia put an embargo on various food imports from Ukraine. Hence, Ukrainian exports to Russia will shrink further due to trade restrictions and the ongoing recession in its formerly most important trading partner.

Box 2

Western Balkans:[1] economic growth accelerates in 2015 amid pronounced rebalancing

In the second half of 2015, economic growth accelerated on an annual basis in most Western Balkan countries with the exception of the Former Yugoslav Republic of Macedonia (FYR Macedonia) and Albania. Nevertheless, even in these two countries, GDP growth edged up to 3.7% and 2.6%, respectively, in 2015, slightly above the 2014 outcome of 3.5% in FYR Macedonia and 2% in Albania. In Serbia, GDP growth entered positive territory in the second half of 2015 and amounted to 1.8% in 2015 (2014: –0.7%). In Bosnia and Herzegovina and in Kosovo[2], growth rates accelerated by more than 1.5 percentage points against 2014 to 2.9% and 3.5%, respectively. GDP growth in Montenegro broadly stayed at 2.6% on an annual basis in the second half of 2015 and almost doubled for the whole year 2015 to reach 3.1%.

In most countries, GDP growth was pushed up by domestic demand, mostly with private investment acting as the main driver. Particularly in Albania, Kosovo, and Serbia, GFCF gained speed in 2015 largely as a result of higher FDI inflows. In contrast, in Montenegro, public investment pushed up GDP growth more than private investment. Investment developed positively in Bosnia and Herzegovina as well, but to a great extent as a result of ongoing reconstruction after the floods in summer 2014. The contribution of private consumption to growth remained rather weak in most countries despite low inflation rates, increasing wages in some cases and the rise in employment. However, private consumption benefited from an increasing inflow of remittances in 2015 (especially in Albania, Bosnia and Herzegovina as well as in Kosovo), while in Serbia, restrictive fiscal measures dampened private consumption in 2015.

Looking at foreign trade, export growth weakened somewhat as a result of lower prices for oil in Albania and for basic metals in Kosovo. Serbia and Macedonia reported robust growth of exports in 2015, albeit declining in the latter. Montenegro experienced an exceptional tourism season partly due to diversion effects, which was reflected in very strong export growth, predominately in the third quarter of 2015. In contrast to the previous year, where net exports had contributed positively to GDP growth only in Albania and Serbia, in 2015 positive net exports became a growth driver across the whole region. Although increased investment growth fed through into elevated imports, low oil prices suppressed import growth, thus leaving it largely unchanged as compared to 2014 in most countries.

Industrial production accelerated in the second half of 2015 in some Western Balkan countries largely on the back of enhanced export activity. The increase was particularly pronounced in FYR Macedonia, Serbia, and to a lesser extent in Bosnia and Herzegovina. In Albania, industrial production decelerated strongly in late 2015 and early 2016 due to a slump in the output of the extracting industries, which is also reflected in a much lower GDP growth rate in the fourth quarter of 2015. Agricultural production – an important sector in many

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

[2] *Preliminary data.*

Western Balkan economies – surged in Bosnia and Herzegovina in 2015 after having been hit by the floods in 2014. In contrast, Serbia's agricultural output plummeted in 2015, and in Albania, floods and droughts in 2015 negatively affected growth.

The labor markets show some signs of improvement. Employment rates went up in 2015 against 2014 in most countries except in Bosnia and Herzegovina (no data available for Kosovo). The increase was strongest in Albania, where the employment rate rose by 2 percentage points to almost 53%, the highest rate in the region but still well below the average employment rate in the euro area (almost 64%). Moreover, unemployment data (according to the labor force survey) suggest some relief. Unemployment dropped most strongly in Serbia, falling by more than 2 percentage points to 17% in 2015 compared to 2014. On a negative note, in Bosnia and Herzegovina and in Kosovo, rates continued to hover around highly elevated levels.

External imbalances remain substantial even though current account deficits narrowed in most countries in 2015. The improvement was most sizeable in Bosnia and Herzegovina (data only available for the first three quarters of 2015) and in Serbia, driven by a lower deficit of the trade balance. By contrast, in Montenegro, the country with the highest current account deficit in the region, the deficit rose further to 17.6% of GDP in 2015 (2014: –15.2%). This rise was partly driven by a further widening of the trade deficit to above 41% of GDP (2014: 39.8% of GDP). 2015 was marked by a powerful inflow of remittances. For instance, the influx of remittances to Kosovo rose by 9% in annual terms until November 2015. The countries also benefited from strong FDI inflows. Coupled with a narrowing of the current account deficit, incoming FDI and remittances brought the coverage ratio of the current account deficit in the four quarters to September 2015 to more than 50% on average. Bosnia and Herzegovina represents the only notable exception in the region, with a coverage ratio of less than one-fourth.

In the second half of 2015, inflation remained subdued in all Western Balkan countries. Weak price dynamics largely reflected still feeble private consumption but also low imported inflation and a downtrend in global commodity prices. In fact, the deflationary trend in Bosnia and Herzegovina that had started in mid-2013 accelerated to –1.7% in the fourth quarter of 2015, while inflation in FYR Macedonia averaged –0.3% in the second half of 2015. By contrast, prices in Albania posted a minor increase on an annual basis to 2% in the fourth quarter of 2015, bringing inflation in the second half of 2015 to 1.9%. Prices in Montenegro bounced back to 2% on average in the second half of 2015, primarily due to the increase of the excise tax on gasoline.

Both inflation-targeting countries – Albania and Serbia – undershot their inflation targets (3% and 4% ±1.5 percentage points, respectively). On the back of low inflation and with the intention to reinvigorate credit dynamics, the National Bank of Albania lowered its key policy rate in two steps from 2.75% in November 2015 to 1.5% as of April 2016. The Albanian lek has remained fairly stable against the euro over the past half year. The National Bank of Serbia (NBS) continued to ease its monetary stance as well and cut its key interest rate by a cumulative 350 basis points in 2015 and by a further 25 basis points in February 2016 to a historic low of 4.25%. The Serbian dinar lost nearly 5% against the euro from October 2015 to March 2016. The NBS has intervened frequently in the foreign exchange market to reduce exchange rate volatility.

Credit risk remains an imminent challenge to financial stability, with shares of nonperforming loans (NPLs) in total loans elevated but on the decline. The (unweighted) country average share ran to 14.2% in the third quarter of 2015, down from 17.9% a year earlier. In particular, in the third quarter of 2015, NPLs as a share of total loans ranged from 9.2% in Kosovo to 22% in Serbia, while Albania registered a large drop to 17.7% as of end-2015. NPL levels in Bosnia and Herzegovina and FYR Macedonia, though, remained broadly unchanged, hovering around 12% and 9%, respectively. On a positive note, the levels of provisioning appear to be adequate. The challenges to banks' asset quality have been addressed through the adoption of a comprehensive NPL resolution strategy in Serbia in August 2015. In addition, Albania and FYR Macedonia set up regulations to prompt write-offs of NPLs after three and

two years, respectively, alongside an improved collateral execution. Kosovo and Bosnia and Herzegovina still lack an NPL resolution mechanism.

Despite the ongoing recovery of economic growth in all Western Balkan countries, credit activity in the private sector remained lackluster and was driven mainly by the household sector. In the second half of 2015, credit volume posted sizeable growth only in FYR Macedonia, Kosovo and Montenegro, accelerating to an average of 8.8%, 7.3% and 8.6%, respectively. In the remaining countries, in particular in Albania and Serbia, high levels of NPLs still thwart the credit recovery, although some steps to rectify conditions have been taken. Loan growth slipped into negative territory in Albania (–1.1%) and decelerated substantially in Serbia (2.3%). Lending in Bosnia and Herzegovina remained below the previous year's levels and stood at 1.9% in the second half of 2015. Overall, a slight shift to lending in domestic currency could be observed in most of the countries.

Better-than-expected revenues coupled with rigorous consolidation measures led to a reduction in the fiscal deficit to 3.7% of GDP in Serbia in 2015. Thus, the target of 5.9% of GDP was undershot by a wide margin. Similarly, Albania is estimated to have underperformed its 2015 fiscal target of 4% of GDP, largely because of capital expenditure cuts, though. In Montenegro, in turn, on the back of increased public spending coupled with a shortfall of both direct and indirect taxes, the fiscal stance was considerably loosened, and the deficit reached 7.9% of GDP in 2015 (initial target: 6.5% of GDP). FYR Macedonia succeeded in narrowing the fiscal deficit to an estimated 3.6% of GDP in 2015, but elevated growth in spending on social transfers and wages resulted in an overshooting of the target (3.3% of GDP). In line with the fiscal rule setting the deficit target at 2% of GDP, the budget deficit edged down to 2% of GDP in 2015 in Kosovo on the back of increases in excise and VAT rates. With a deficit of 1.4% of GDP in 2015, Bosnia and Herzegovina tightened its fiscal stance. However, the fiscal situation remains challenging, not least due to upcoming elevated refinancing needs in parallel to an absence of an IMF-supported program.

With respect to the EU accession process, Montenegro occupies the most advanced position among the countries of the region; it opened two additional chapters in December 2015. This brings the total number of open chapters to 22, while two negotiation chapters have been provisionally closed so far. Serbia started negotiating with the EU and opened the first two chapters in December 2015. At the same time, Albania is to adopt a set of judicial reform measures, which might allegedly pave the country's way to the start of negotiations by end-2016. To mitigate the enduring political challenges in FYR Macedonia, the EU brokered an arrangement with the authorities for early general elections, which are set to be held on June 5, 2016. Yet recent domestic political turmoil might put the elections at risk. Kosovo started implementing the Stabilization and Association Agreement (SAA) with the EU as of April 1, 2016. To mitigate adverse effects of the refugee crisis on the Balkan route, the European Commission has continued to provide financial support, notably to Serbia and FYR Macedonia.

Three Western Balkan countries were in programs with the IMF. Though it noted considerable progress, the IMF postponed the conclusion of its fourth review under the precautionary Stand-By Arrangement (SBA) with Serbia to after the general election set for April 24, 2016. The conclusion of the second review under the 22-month SBA with Kosovo was also postponed because further efforts were needed to preserve fiscal sustainability. For Albania, the conclusion of the seventh review (planned for May) under the 36-month Extended Fund Facility program would free up about EUR 35.94 million for disbursement. Although Bosnia and Herzegovina has recently made some progress, it still has to take measures in a number of areas to be considered for a potential IMF-supported program.

2 Slovakia: strong economic performance continues

GDP growth accelerates on the back of solid investment activity

Slovakia's economy expanded rapidly during the second half of 2015, reaching a stellar 4.3% year-on-year GDP growth in the fourth quarter. Domestic demand remains the key driver behind recent developments. GFCF increased by 17.3% in the third quarter and by 19.4% in the fourth. Amid deflationary tendencies and a tightening labor market, disposable income increased markedly, supporting robust private consumption growth. Favorable wage dynamics are expected to further strengthen household spending in the medium run. The significant spike in investment activity was largely due to a late drawdown of EU funds. However, recent FDI statistics indicate that the business environment has become more attractive: As a share of GDP, net inflows reached 3.5% in the fourth quarter. In view of considerable investment announced for the automotive sector (according to the latest IMF Article IV consultations, Land Rover and Jaguar will invest some 2% worth of GDP), FDI is seen as a key driver of real GDP growth. Net exports, on the other hand, continue to dampen economic growth. A steep increase in imports again outpaced the expansion of exports. The trade surplus declined to an average of 0.8% of GDP in the fourth quarter of 2015. With stronger profit repatriation of foreign firms, the current account turned negative in 2015 after running a surplus from 2012 to 2014. Mirroring the increased absorption of EU funds, the capital account improved to 7.0% of GDP in the fourth quarter of 2015.

Public debt levels have stabilized and are expected to decline gradually

Notwithstanding the marginal deterioration in the government balance, total public debt as a share of GDP contracted to 52.9% in 2015, thus easily meeting the constitutional debt limit of 55%. Both government income and spending gained some momentum in 2015. On the expenditure side, subsidies, public sector wages and the cofinancing of investments increased outlays compared to 2014. Moderately rising government revenue could not keep pace. As a consequence, the deficit increased to 3.0% of GDP. On the back of solid economic growth, envisaged savings in the healthcare sector and a reduction in public spending (see the National Reform Programme of the Slovak Republic 2015), the deficit is expected to decline to 2.1% in 2016, however. According to the EU Commission's financial stability report, the public debt should decline gradually to some 51% of GDP until 2017. With demand for government debt securities remaining strong, Slovakia is believed to face only negligible financing risks in the medium term.

Downward pressure on prices remains; low interest rate environment supports positive trend in financial deepening

Consumer prices dropped further during the second half of 2015, largely on account of sluggish price dynamics in the oil and energy sector. While core inflation remained in positive territory, the harmonized consumer price index declined by 0.3% and 0.5% year on year in the third and fourth quarters, respectively. However, with financing conditions favorable and the labor market strengthening, disposable income increased in 2015, further underpinning domestic demand. Deflationary tendencies are thus expected to dissipate soon. Supported by the low interest rate environment, household credit grew by some 6% during the second half of 2015. Private lending is primarily driven by residential property purchases: Mortgage loans account for more than 75% of all household loans. They expanded further in 2015, augmenting by some 14%. While private household lending has developed dynamically ever since the financial crisis, total household debt remains well below the levels in most euro area countries. Importantly, previously weak credit to the corporate sector has also been picking up lately, with growth rates of 0.3% in the third and 1.8% in the fourth quarter.

Table 1

Main economic indicators: Slovakia

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	1.4	2.5	3.6	2.4	2.8	2.9	3.4	3.7	4.3
Private consumption	–0.8	2.3	2.4	1.6	2.3	1.5	2.3	2.8	2.8
Public consumption	2.2	5.9	3.4	5.2	5.1	1.8	3.6	5.2	3.2
Gross fixed capital formation	–1.1	3.5	14.0	3.9	4.0	6.7	9.6	17.3	19.4
Exports of goods and services	6.2	3.6	7.0	2.0	–0.6	5.4	6.1	7.3	9.2
Imports of goods and services	5.1	4.3	8.2	1.9	–1.5	5.2	7.3	9.9	10.5
	Contribution to GDP growth in percentage points								
Domestic demand	0.3	2.9	4.7	2.2	1.9	2.5	4.2	5.6	6.3
Net exports of goods and services	1.2	–0.4	–0.8	0.2	0.8	0.5	–0.8	–1.8	–1.0
Exports of goods and services	5.7	3.4	6.4	1.8	–0.6	5.3	5.7	6.2	8.4
Imports of goods and services	–4.5	–3.8	–7.3	–1.6	1.4	–4.9	–6.5	–8.0	–9.4
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	0.4	0.7	0.8	0.6	0.4	0.7	0.2	0.5	1.6
Unit labor costs in manufacturing (nominal, per hour)	–1.0	–3.6	–1.6	–2.6	–4.3	–7.0	0.1	–1.6	2.1
Labor productivity in manufacturing (real, per hour)	6.5	8.3	5.7	6.6	11.2	13.2	3.3	5.0	2.4
Labor costs in manufacturing (nominal, per hour)	5.3	4.3	4.1	3.8	6.4	5.2	3.4	3.3	4.6
Producer price index (PPI) in industry	–1.0	–3.5	–3.0	–3.7	–3.5	–3.7	–2.6	–2.4	–3.2
Consumer price index (here: HICP)	1.5	–0.1	–0.3	–0.1	–0.1	–0.5	–0.1	–0.3	–0.5
EUR per 1 SKK, + = SKK appreciation	..	..	..	..	..	..	..	..	..
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	14.3	13.2	11.5	12.9	12.6	12.5	11.3	11.3	11.0
Employment rate (%, 15–64 years)	59.9	61.0	62.7	61.3	61.7	61.9	62.5	63.0	63.5
Key interest rate per annum (%)	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SKK per 1 EUR	..	..	..	..	..	..	..	..	..
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	5.9	4.9	11.1	5.4	4.9	5.6	7.5	10.7	11.1
	Contributions to the year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	–2.7	4.9	6.1	–0.0	4.3	10.4	8.1	10.6	1.7
Domestic credit of the banking system	–6.3	7.9	24.8	10.5	6.7	14.1	11.3	14.2	17.2
of which: claims on the private sector	5.3	10.5	13.2	7.1	5.1	5.7	6.4	6.4	7.7
claims on households	8.2	9.8	11.6	5.1	5.4	5.7	5.7	6.1	5.9
claims on enterprises	–2.9	0.7	1.6	2.0	–0.3	0.0	0.7	0.3	1.8
claims on the public sector (net)	–11.6	–2.6	11.6	3.4	1.7	8.4	4.9	7.8	9.5
Other assets (net) of the banking system	21.9	–1.7	–14.4	–5.1	–6.2	–18.9	–12.0	–14.1	–7.9
	% of GDP								
General government revenues	38.6	39.2	42.7	..	..	..	..	..	..
General government expenditures	41.3	41.9	45.6	..	..	..	..	..	..
General government balance	–2.7	–2.7	–3.0	..	..	..	..	..	..
Primary balance	–0.8	–0.8	–1.1	..	..	..	..	..	..
Gross public debt	55.0	53.9	52.9	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	47.9	48.4	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	30.1	32.8	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	4.6	3.8	2.4	3.7	2.0	5.1	3.2	0.8	0.8
Services balance	0.6	0.1	0.1	0.3	–0.3	0.4	0.2	0.3	–0.4
Primary income	–1.8	–2.2	–2.3	–2.6	–2.0	–2.1	–3.5	–3.5	–0.3
Secondary income	–1.8	–1.6	–1.4	–1.5	–1.3	–1.6	–1.6	–1.4	–1.2
Current account balance	1.5	0.1	–1.3	–0.1	–1.6	1.8	–1.7	–3.8	–1.1
Capital account balance	1.4	1.0	3.6	0.6	2.4	1.2	1.7	4.0	7.0
Foreign direct investment (net)	–1.0	0.2	–1.1	–0.0	–2.1	–4.5	3.0	0.1	–3.5
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	83.0	89.3	86.2	91.7	89.3	90.7	87.8	87.6	86.2
Gross official reserves (excluding gold)	0.9	1.5	2.1	1.0	1.5	3.2	1.8	2.6	2.1
	Months of imports of goods and services								
Gross official reserves (excluding gold)	0.1	0.2	0.3	0.1	0.2	0.4	0.2	0.3	0.3
	EUR million, period total								
GDP at current prices	73,835	75,560	78,071	19,937	19,362	17,859	19,425	20,619	20,169

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

3 Slovenia: turnaround to the better has succeeded

Temporary strengthening of GDP growth in final quarter of 2015

GDP growth strengthened to 3.3% in the fourth quarter of 2015 on the back of a revival of domestic demand. More generally, private consumption growth picked up in the second half of 2015, supported by improved consumer confidence, stronger employment growth, decreasing unemployment, continued gains in real wages and some expansion of credit to households. Public consumption growth also accelerated in the second half of 2015 (especially in the fourth quarter). GFCF remained volatile, showing a slight expansion overall in the second half of 2015. Investments in machinery and equipment were underpinned by relatively high capacity utilization and the continued moderation in corporate credit contraction. Restocking continued to aid GDP growth in the reporting period. By contrast, the contribution of net exports turned slightly negative at the end of the year, as export growth continued to slow down while import growth was upheld by domestic demand-led imports. High-frequency indicators from early 2016 represent a mixed bag, with further healthy retail sales, a substantial decrease in construction activity and a slowdown in foreign trade.

Budget deficit declines but exit from EDP by mid-2016 not yet certain

The general government deficit declined to 2.9% of GDP in 2015 from 5% in 2014. For 2016, the government plans a further reduction. Nevertheless, it is premature to say whether Slovenia will exit the excessive deficit procedure (EDP) in mid-2016, as in early March 2016, the Eurogroup called for additional structural efforts toward the medium-term objective and compliance with the expenditure benchmark under the Stability and Growth Pact. The European Commission's 2015 Fiscal Sustainability Report found no significant short-term fiscal sustainability risks for the country, though some elements (high nonresident holdings of government debt and high NPLs in the banking sector) may possibly pose challenges. By contrast, the European Commission sees high sustainability risks for Slovenia over the medium and long term, citing the high sensitivity of debt to possible economic and interest rate shocks and the projected steep rise in age-related fiscal costs combined with the high initial debt-to-GDP ratio.

Improving credit market, strengthening banking sector

The latest data have confirmed that banking sector developments have turned to the better. The negative annual growth rate of credit to households and corporations started to diminish in the second half of 2015 as household credit growth turned mildly positive and corporate credit growth contracted less dynamically. This mirrored households' better income position, a revival of the housing market and the favorable overall effect of the economic recovery on the financial position of the nonfinancial sector. Banks' profitability improved as well in 2015, mainly because provisioning and impairment costs dropped significantly, strengthening banks' capital position. The volume and share of nonperforming claims has been diminishing gradually but slowly to reach 10% by end-2015. However, the high share of NPLs, especially in lending to SMEs and foreign borrowers, represents a risk factor for the Slovenian banking sector: It reduces banks' lending and thus profit-generating capacity in an already difficult environment of low and falling interest rates and interest rate spreads.

Table 2

Main economic indicators: Slovenia

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	–1.1	3.0	2.9	3.6	2.8	2.8	2.7	2.6	3.3
Private consumption	–4.1	0.7	1.7	0.8	–0.1	0.7	1.2	2.5	2.6
Public consumption	–1.5	–0.1	0.7	–0.5	0.8	–1.2	0.2	0.8	3.0
Gross fixed capital formation	1.7	3.2	0.5	6.6	–4.1	1.5	–0.6	–2.0	3.4
Exports of goods and services	3.1	5.8	5.2	6.4	7.8	6.2	6.2	5.0	3.3
Imports of goods and services	1.7	4.0	4.4	5.6	3.6	6.1	4.1	3.7	3.9
	Contribution to GDP growth in percentage points								
Domestic demand	–2.1	1.5	1.9	2.6	–0.6	2.3	0.8	1.3	3.4
Net exports of goods and services	1.1	1.6	0.9	1.0	3.4	0.6	1.9	1.4	–0.1
Exports of goods and services	2.2	4.4	4.0	4.8	5.9	4.8	4.6	3.8	2.6
Imports of goods and services	–1.2	–2.8	–3.0	–3.8	–2.6	–4.2	–2.7	–2.5	–2.7
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	0.2	–1.3	–0.6	–1.2	–0.3	–0.8	–0.2	–1.0	–0.5
Unit labor costs in manufacturing (nominal, per hour)	3.0	–0.0	–5.2	1.2	–2.1	–5.1	–3.9	–7.8	–3.7
Labor productivity in manufacturing (real, per hour)	–2.2	3.7	5.9	4.6	5.4	7.3	6.1	6.3	4.0
Labor costs in manufacturing (nominal, per hour)	0.6	3.8	0.5	5.9	3.2	1.9	2.0	–2.0	0.2
Producer price index (PPI) in industry	0.0	–0.7	–0.2	–0.6	–0.1	0.0	0.6	–0.4	–1.2
Consumer price index (here: HICP)	1.9	0.4	–0.8	0.1	0.0	–0.5	–0.8	–0.8	–0.9
EUR per 1 SIT, + = SIT appreciation	..	..	..	..	..	..	..	..	..
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	10.3	9.9	9.1	9.4	9.7	9.9	9.3	8.7	8.5
Employment rate (%, 15–64 years)	63.3	63.9	65.2	64.6	64.0	63.5	65.5	66.7	65.2
Key interest rate per annum (%)	0.5	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SIT per 1 EUR	..	..	..	..	..	..	..	..	..
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	0.2	7.8	5.3	6.4	7.8	5.5	5.0	3.8	5.3
	Contributions to year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	29.1	48.9	23.4	34.1	25.2	16.8	3.3	–0.7	–1.6
Domestic credit of the banking system	–16.4	–32.9	–10.7	–19.2	–19.1	–11.0	1.0	3.0	7.8
of which: claims on the private sector	–30.0	–38.4	–20.7	–22.6	–15.5	–13.4	–12.6	–12.4	–4.8
claims on households	–2.3	–2.2	–0.3	–1.0	–0.7	–0.1	0.1	0.0	0.4
claims on enterprises	–27.7	–36.2	–20.4	–21.6	–14.8	–13.4	–12.7	–12.4	–5.2
claims on the public sector (net)	13.6	5.5	10.0	3.4	–3.6	2.4	13.6	15.4	12.6
Other assets (net) of the banking system	–13.2	–7.9	0.8	–8.4	1.8	–0.3	0.7	1.5	–0.9
	% of GDP								
General government revenues	45.2	44.9	45.1	..	..	..	..	..	..
General government expenditures	60.3	49.9	48.0	..	..	..	..	..	..
General government balance	–15.0	–5.0	–2.9	..	..	..	..	..	..
Primary balance	–12.5	–1.8	0.1	..	..	..	..	..	..
Gross public debt	71.0	81.0	83.2	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	89.4	81.6	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	30.0	28.5	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	2.0	3.2	4.2	3.2	3.4	3.9	4.2	4.8	3.9
Services balance	4.9	4.7	5.3	6.0	4.2	4.5	5.4	6.3	5.1
Primary income	–0.5	–0.2	–1.0	–1.2	–0.4	–1.4	–0.1	–1.2	–1.2
Secondary income	–0.8	–0.7	–1.3	–0.7	0.5	–2.0	–1.2	–0.9	–1.0
Current account balance	5.6	7.0	7.3	7.3	7.8	5.0	8.3	9.0	6.9
Capital account balance	0.2	–0.5	0.1	0.1	–1.6	0.3	–0.3	0.6	–0.4
Foreign direct investment (net)	–0.1	–1.6	–2.5	–3.6	2.0	–4.0	0.2	–1.0	–5.2
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	116.8	124.2	116.1	123.9	124.2	125.8	119.7	119.2	116.1
Gross official reserves (excluding gold)	1.6	2.0	1.8	2.0	2.0	2.1	2.1	1.9	1.8
	Months of imports of goods and services								
Gross official reserves (excluding gold)	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	35,907	37,303	38,543	9,640	9,410	8,950	9,869	9,904	9,820

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

4 Bulgaria: exports boost GDP growth as private consumption recovers

GDP development pushed by strong net exports

Robust net exports were the key contributing factor to healthy GDP growth of 3% for 2015, which is twice as high as in 2014 (1.5%). Bulgaria managed to increase exports to all important European countries. More than 60% of Bulgaria's exports go to other EU countries, with Germany, Italy, Romania and Greece representing the most important trading partners. However, exports to Turkey, Bulgaria's main non-EU export destination, decreased by 3.3%. Exports also increased in almost all major sectors (manufactured goods: 7.4%, machinery and transport equipment: 14.5%, chemicals: 13.3%).

Domestic demand stabilizes in the second half of 2015

Private consumption rebounded during the second half of 2015, with growth at 2.2% (–0.9% in the first half of 2015). This development was based on steadily decreasing unemployment rates (8% in the fourth quarter of 2015 against 10% in the second quarter of 2015), increasing wages and persistently low oil prices. The positive momentum in the labor market was also underpinned by increasing job vacancies (+6.3% in December 2015). However, significant challenges in the labor market remain, as 60% of the unemployed are long-term unemployed and as the working age population in Bulgaria is still decreasing. The strong positive development of investments in the second half of 2015 (+5.2%) was mainly based on an inflow of funds under EU programs. Although food and service prices continued to rise moderately and electricity prices were also higher, the headline HICP remained negative (–1.0% in February 2016). Even excluding the effect of decreasing oil prices, inflation would have been slightly negative at –0.3% in February 2016.

Credit growth still negative, banks hoard liquidity at the central bank

Credit growth was still negative for loans to households (–0.4%) and loans to businesses (–0.9%) in the fourth quarter of 2015, although deposits were increasing (10.6%). Consequently, Bulgarian banks' liquidity position increased continuously due to the limited demand for loans and the lack of investment opportunities. A substantial part of liquidity – 16% of total assets in December 2015 – was deposited at the Bulgarian National Bank (BNB). Owing to its currency board arrangement based on the euro, the BNB charges negative interest rates on banks' excess reserves, as the interest rate on the ECB deposit facility has gone negative. After the failure of Corporate Commercial Bank in 2014, the BNB launched the ongoing reform of banking supervision practices. The restructuring process will take until end-2016 and will be reviewed by the IMF and World Bank. At the same time, Bulgaria's banking, pension and insurance sectors will undergo asset quality reviews and stress tests. Results are expected at the end of summer for the banking sector and at end-2016 for the pension and insurance sector.

Better-than-expected economic development leads to lower budget deficit

Stronger-than-expected growth and improved tax collectability boosted tax revenues by 8.7% from January to November 2015. As a consequence, the government of Bulgaria was able to help boost cofinanced EU projects under the 2007–2013 framework. Still, overall expenditure increased by just 4% from January to November 2015, mainly because operating expenditures decreased and social security, assistance and social care expenditures remained almost stable. Bulgaria plans to consolidate the budget further until 2018 (2017: budget deficit of 0.6% of GDP, 2018: 0.4% of GDP). Improvements are projected to come mainly from reductions in expenditures.

Table 3

Main economic indicators: Bulgaria

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	1.3	1.5	3.0	0.7	2.4	3.3	2.8	3.0	2.9
Private consumption	–1.4	2.7	0.8	1.5	3.2	–1.0	–0.7	2.1	2.4
Public consumption	2.3	0.1	0.2	–0.5	–10.2	–3.3	0.8	1.0	2.3
Gross fixed capital formation	0.3	3.4	2.5	3.5	0.1	–3.6	0.6	3.2	7.2
Exports of goods and services	9.2	–0.1	7.6	–3.3	4.2	15.0	6.9	4.3	6.4
Imports of goods and services	4.9	1.5	4.4	–3.0	5.4	6.3	4.9	2.3	4.3
	Contribution to GDP growth in percentage points								
Domestic demand	–1.3	2.7	0.9	1.4	3.3	–2.0	1.5	1.5	1.8
Net exports of goods and services	2.6	–1.1	2.1	–0.4	–0.9	5.1	1.2	1.6	1.1
Exports of goods and services	5.8	–0.1	5.0	–2.4	2.4	9.8	4.5	3.0	3.7
Imports of goods and services	–3.2	–1.0	–2.9	2.0	–3.4	–4.7	–3.3	–1.5	–2.7
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	7.3	4.2	–0.8	6.6	5.5	–0.7	–1.1	–2.5	1.1
Unit labor costs in manufacturing (nominal, per hour)	4.8	0.4	5.6	0.2	1.2	5.3	3.1	6.6	7.4
Labor productivity in manufacturing (real, per hour)	–0.3	6.3	2.4	6.5	5.9	1.2	3.4	2.5	2.2
Labor costs in manufacturing (nominal, per hour)	4.6	6.7	8.1	6.7	7.2	6.6	6.6	9.2	9.8
Producer price index (PPI) in industry	–1.5	–1.2	–2.0	–0.4	–0.4	–1.3	–0.0	–2.4	–4.1
Consumer price index (here: HICP)	0.4	–1.6	–1.1	–1.2	–1.8	–1.7	–0.6	–0.9	–1.0
EUR per 1 BGN, + = BGN appreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	13.0	11.5	9.3	10.8	10.7	10.7	10.0	8.3	8.0
Employment rate (%, 15–64 years)	59.5	61.1	62.9	62.8	61.4	61.0	62.4	64.5	63.7
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)	8.9	1.1	8.8	7.2	1.1	1.9	2.5	2.1	8.8
	Contributions to year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	12.8	15.7	18.3	7.5	9.9	14.0	15.7	11.3	8.3
Domestic credit of the banking system	5.9	–4.9	–5.7	0.9	–7.5	–10.1	–12.5	–8.4	1.7
of which: claims on the private sector	2.9	–6.7	–7.6	2.1	–6.4	–6.8	–8.0	–7.7	–1.2
claims on households	–0.4	–0.5	–0.8	0.0	–0.5	–0.5	–0.5	–0.4	–0.4
claims on enterprises	3.3	–6.2	–6.8	2.0	–5.9	–6.3	–7.5	–7.3	–0.9
claims on the public sector (net)	3.0	1.8	1.9	–1.1	–1.1	–3.3	–4.6	–0.7	2.9
Other assets (net) of the banking system	–0.6	–0.6	–2.6	–1.2	–1.3	–2.0	–0.7	–0.8	–1.3
	% of GDP								
General government revenues	37.2	36.6	38.2	. .	. .	. .	. .	. .	. .
General government expenditures	37.6	42.1	40.2	. .	. .	. .	. .	. .	. .
General government balance	–0.4	–5.4	–2.1	. .	. .	. .	. .	. .	. .
Primary balance	0.3	–4.6	. .	. .	. .	. .	. .	. .	. .
Gross public debt	17.1	27.0	26.7	. .	. .	. .	. .	. .	. .
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	113.3	116.6	..	. .	. .	. .	. .	. .	. .
Debt of households and NPISHs (nonconsolidated)	25.5	24.9	..	. .	. .	. .	. .	. .	. .
	% of GDP (based on EUR), period total								
Trade balance	–7.0	–6.5	–4.3	–4.6	–6.1	–5.8	–3.8	–2.4	–5.8
Services balance	6.3	5.9	6.1	13.6	1.5	3.0	4.8	13.3	2.5
Primary income	–3.8	–2.3	–4.1	–2.4	–2.1	–4.3	–6.9	–3.9	–1.6
Secondary income	5.7	3.8	3.7	2.3	2.0	8.4	4.0	2.7	1.0
Current account balance	1.3	0.9	1.4	8.9	–4.6	1.3	–1.9	9.7	–3.8
Capital account balance	1.1	2.2	3.2	1.7	3.6	3.2	4.0	2.5	3.2
Foreign direct investment (net)	–3.0	–2.1	–3.4	0.9	–4.2	–6.2	–3.7	–4.8	0.2
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	92.0	96.7	82.9	93.8	96.7	97.1	86.9	84.7	82.9
Gross official reserves (excluding gold)	31.9	35.6	43.1	33.6	35.6	40.7	40.7	42.8	43.1
	Months of imports of goods and services								
Gross official reserves (excluding gold)	5.9	6.5	8.0	6.2	6.5	7.4	7.4	7.9	8.0
	EUR million, period total								
GDP at current prices	41,912	42,751	44,162	11,853	11,968	8,965	11,069	12,011	12,117

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

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

5 Croatia: recovery faces headwinds owing to fiscal consolidation needs

Return to growth backed by recovery of private consumption and investment

The year 2015 marked the end of six years of recession in Croatia: GDP growth turned positive and reached 1.6%. In particular, the third quarter saw surprisingly strong growth. The recovery was based on both domestic demand and export gains. With an overall positive net contribution in 2015, exports helped to lead the country out of recession. Only in the fourth quarter of 2015 did export growth decelerate while imports accelerated further, leading to a negative contribution of net exports. But domestic demand was also a key driver of the recovery. After three years of negative growth, private consumption recovered and accelerated throughout 2015 on the back of a tax reform in January 2015 and an increase in real wages as well as a modest improvement in employment. GFCF accelerated during the whole of 2015, reaching 1.6% average growth in 2015 after having contracted in 2014. Public consumption also grew by 0.6% despite the need for consolidation delineated by the EDP.

Tourism boosts current account surplus; primary income balance improves temporarily

The current account balance stayed in surplus, climbing to 5.2% of GDP in 2015, bolstered by the rise in tourism and a further increase in the surplus of secondary income due to the growing use of EU funds. The large increase in the current account surplus was, however, mainly attributable to a positive primary income balance in the third quarter that resulted from losses by foreign-owned banks following the conversion of Swiss franc loans. In 2015, net FDI declined to 0.3% of GDP. At end-2015, gross external debt, around one-third of which was government debt, stood at 103.7% of GDP. External debt declined by EUR 1.1 billion from 2014, mainly as a result of the deleveraging of credit institutions, while unfavorable exchange rate developments had adverse effects specifically on the government sector's U.S. dollar-denominated external debt.

Price levels contract mildly, Swiss franc loans to households are converted

Inflation turned negative in 2015 mainly as a result of lower energy prices and somewhat lower food prices, while the sharp decrease in unit labor costs leveled out. Deflation is slowing the rate of debt reduction. The ratio of NPLs to total loans remains high, coming to 16.6% at end-2015. Credit growth was again negative in 2015. Although the contraction was much smaller than in previous years, credit growth returned to negative territory in the final quarter of the year. The corporate sector saw a reduction in debt to domestic credit institutions but an increase in borrowing from abroad. Like previous years, 2015 was marked by growth in the indebtedness of private enterprises and deleveraging of public enterprises. The development of household debt was largely influenced by the conversion of Swiss franc loans into euro loans. According to the Croatian National Bank, between November 2015 and January 2016, Swiss franc loans to households declined by HRK 9.4 billion, HRK 6.6 billion of which can be ascribed to conversion and HRK 2.8 billion of which consisted in the write-off of part of the principal of Swiss franc-denominated loans.

Budgetary target for 2016 hinges on growth

The general government deficit decreased from 5.6% to 4.2% of GDP, and gross public debt increased less than originally expected, augmenting from 85.1% to 86.0% of GDP. On March 21, 2016, the Croatian Parliament adopted the 2016 budget with a deficit target of 2.7% of GDP. On March 11, Moody's downgraded Croatia's long-term issuer rating to Ba2, citing the government's large and increasing debt burden and the weak medium-term economic growth prospects.

Table 4

Main economic indicators: Croatia

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	–1.1	–0.4	1.6	–0.2	0.2	0.5	1.2	2.8	1.9
Private consumption	–1.8	–0.7	1.2	–1.1	–0.5	0.4	0.6	1.4	2.4
Public consumption	0.3	–1.9	0.6	–1.3	–0.5	0.6	0.4	0.6	0.8
Gross fixed capital formation	1.4	–3.6	1.6	–3.5	–4.1	–0.4	0.8	2.2	3.7
Exports of goods and services	3.1	7.3	9.2	5.0	5.9	7.2	10.2	8.0	11.6
Imports of goods and services	3.1	4.3	8.6	5.2	0.3	5.7	6.9	8.1	13.6
	Contribution to GDP growth in percentage points								
Domestic demand	–1.1	–1.7	1.2	–0.9	–2.1	0.4	–0.0	1.3	3.0
Net exports of goods and services	0.0	1.3	0.5	0.9	2.2	–0.0	1.1	1.6	–1.1
Exports of goods and services	1.3	3.1	4.2	3.1	2.3	2.5	4.3	5.1	4.8
Imports of goods and services	–1.3	–1.8	–3.8	–2.1	–0.1	–2.5	–3.2	–3.5	–5.9
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	–2.2	–2.4	–0.4	–2.6	–3.8	–0.3	0.7	–0.9	–1.2
Unit labor costs in manufacturing (nominal, per hour)	2.2	–5.6	–3.7	–5.3	–6.1	–0.7	–2.9	–6.0	–5.2
Labor productivity in manufacturing (real, per hour)	–0.7	5.6	6.1	5.4	6.9	2.0	7.1	7.9	6.9
Labor costs in manufacturing (nominal, per hour)	2.0	–0.3	2.0	–0.2	0.3	1.2	4.0	1.4	1.3
Producer price index (PPI) in industry	–0.4	–2.7	–3.9	–2.6	–2.8	–4.6	–2.6	–4.1	–4.2
Consumer price index (here: CPI)	2.3	0.2	–0.3	0.3	0.2	–0.3	–0.0	–0.3	–0.4
EUR per 1 HRK, + = HRK appreciation	–0.8	–0.7	0.3	–1.0	–0.5	–0.4	0.3	0.6	0.6
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	17.5	17.5	16.5	15.8	18.5	18.3	15.8	15.6	16.3
Employment rate (%, 15–64 years)	52.6	54.6	55.8	56.9	54.0	53.8	56.2	57.5	55.8
Key interest rate per annum (%)	..	..	..	..	..	..	..	..	..
HRK per 1 EUR	7.6	7.6	7.6	7.6	7.7	7.7	7.6	7.6	7.6
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	4.0	3.2	5.1	3.2	3.2	2.8	4.8	4.6	5.1
	Contributions to year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	12.7	10.9	11.5	8.1	4.8	7.3	5.3	4.7	6.5
Domestic credit of the banking system	–3.1	–1.8	–0.2	–4.8	0.0	–1.2	2.1	1.8	–0.3
of which: claims on the private sector	–7.0	–2.5	–4.1	–2.8	–1.6	–0.8	–0.7	–1.5	–2.4
claims on households	–1.7	–1.3	–1.1	–0.7	–0.4	0.4	0.4	–0.3	–0.7
claims on enterprises	–5.3	–1.2	–3.0	–2.0	–1.2	–1.2	–1.2	–1.2	–1.7
claims on the public sector (net)	3.9	0.7	3.9	–2.0	1.6	–0.4	2.8	3.3	2.2
Other assets (net) of the banking system	–1.8	–1.8	–2.8	–0.2	–1.7	–3.4	–2.6	–1.9	–1.1
	% of GDP								
General government revenues	42.5	42.6	43.4	..	..	..	..	..	..
General government expenditures	47.8	48.2	47.5	..	..	..	..	..	..
General government balance	–5.4	–5.6	–4.2	..	..	..	..	..	..
Primary balance	–1.9	–2.1	–0.6	..	..	..	..	..	..
Gross public debt	80.7	85.1	86.0	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	102.8	101.4	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	40.2	40.2	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	–15.1	–14.8	–15.1	–13.9	–12.1	–17.1	–16.1	–14.2	–13.4
Services balance	15.6	16.8	17.9	39.6	5.7	3.3	17.3	41.3	5.7
Primary income	–2.0	–3.3	–0.7	–4.1	–1.3	–2.2	–3.8	2.9	–0.2
Secondary income	2.6	2.1	3.1	2.2	2.2	3.1	2.8	2.3	4.3
Current account balance	1.0	0.9	5.2	23.9	–5.5	–12.9	0.3	32.3	–3.6
Capital account balance	0.1	0.2	0.4	0.1	0.4	0.2	0.4	0.3	0.7
Foreign direct investment (net)	–1.9	–3.1	–0.3	–2.6	–3.5	–2.7	–0.2	0.6	0.6
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	105.7	108.5	103.7	108.1	108.5	114.1	112.8	107.5	103.7
Gross official reserves (excluding gold)	29.7	29.5	31.2	28.2	29.5	32.9	31.7	30.8	31.2
	Months of imports of goods and services								
Gross official reserves (excluding gold)	8.3	8.0	7.9	7.6	8.0	8.7	8.3	8.0	7.9
	EUR million, period total								
GDP at current prices	43,492	43,024	43,911	11,738	10,721	9,834	10,965	12,140	10,973

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

6 Czech Republic: solid growth amid sluggish price dynamics

Late drawdown of EU funds fuels real GDP growth in the second half of 2015

The Czech economy expanded rapidly (4.2% year on year) during the second half of 2015 as a result of both temporary effects and structural dynamics. Fueled by a late drawdown of EU funds, public consumption growth peaked at 4.6% in the third quarter, and GFCF expanded swiftly throughout the second half of 2015. Investments were also supported by favorable financing conditions and low oil prices. Accelerating household consumption compensated for a moderate slowdown of government spending in the fourth quarter. Consumption was powered by a further improvement in the labor market. The unemployment rate declined to its lowest level since late 2008 while the employment rate rose to above 70%, its highest reading since the start of transition. Against this background and also given low inflation rates, real wages were on the rise. These trends reconfirm the importance of domestic demand in driving real GDP growth. While foreign demand slackened slightly compared to the first half of 2015, exports remained a critical source of recent growth. Sustained increases in labor productivity (5% in the third quarter) should help make the Czech business environment more attractive for foreign investors in the medium run. In the third and fourth quarter of 2015, FDI decreased slightly, however.

Tightening labor market corroborates positive inflation expectations in the medium term

Headline inflation dropped to 0% in the fourth quarter of 2015, reflecting falling energy prices as well as lower rises in the price of processed food. Against this background, the Czech National Bank (CNB) decided to continue its commitment to support the exchange rate (at a floor of CZK 27.0 per EUR 1 or weaker) and delayed its potential exit from the floor to the start of 2017 at the earliest. In the review period, the CNB intervened in the foreign exchange market several times, buying some EUR 7 billion. Before August 2015, the CNB had not intervened to defend its target. Foreign exchange reserves went up from 31% of GDP in the second quarter to 35.9% of GDP in the fourth quarter of 2015. With this comparatively moderate level of foreign exposure, the CNB is believed to maintain a firm position in fighting deflationary tendencies. Furthermore, a tightening labor market indicates that wage inflation could soon pick up. Consumer prices should follow suit. In fact, inflation already increased to 0.5% in January and February 2016, with all major components of the HICP delivering somewhat higher inflation contributions.

Nominal public debt contracts despite strong fiscal stimuli and banking system remains resilient to adverse shocks

Fiscal policy has been instrumental in the recent economic recovery. Nominal public debt contracted to 41.1% of GDP in 2015 and is expected to remain well below the EU stability threshold of 60% of GDP in the medium term. By cofinancing private investments, government funds most likely contributed to the buildup of private sector credit. Claims on enterprises grew by 4.1% in the third quarter and by 1.8% in the fourth quarter of 2015. At the same time, the share of NPLs remained stable (6.4% for enterprises and 4.5% for households in the third quarter of 2015), and the banking system continues to build up capital buffers. With strong capital adequacy (17.3% in the third quarter of 2015) and profitability figures, the capital buffers of the sector are expected to remain high even in the event of adverse shocks.

Table 5

Main economic indicators: Czech Republic

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	–0.5	2.0	4.2	2.6	1.0	4.0	4.5	4.1	4.3
Private consumption	0.7	1.5	2.8	1.6	1.8	2.7	2.8	2.7	3.0
Public consumption	2.3	1.8	2.8	0.4	3.0	2.3	2.5	4.5	1.9
Gross fixed capital formation	–2.7	2.0	7.3	3.0	1.1	3.5	8.6	8.0	8.5
Exports of goods and services	0.0	8.9	7.0	8.5	6.7	7.4	7.2	5.4	8.0
Imports of goods and services	0.1	9.8	7.9	8.8	7.5	9.2	8.3	6.5	7.6
	Contribution to GDP growth in percentage points								
Domestic demand	–0.5	2.2	4.4	2.5	1.4	4.5	4.8	4.6	3.7
Net exports of goods and services	–0.0	–0.2	–0.2	0.1	–0.4	–0.6	–0.3	–0.5	0.6
Exports of goods and services	0.0	6.8	5.9	6.4	5.1	6.5	6.0	4.4	6.6
Imports of goods and services	–0.0	–7.0	–6.1	–6.3	–5.5	–7.2	–6.3	–4.9	–6.0
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	0.6	0.1	–0.6	–1.3	1.3	–0.8	–0.5	–0.4	–0.5
Unit labor costs in manufacturing (nominal, per hour)	–0.4	–1.8	0.1	–0.8	0.1	–1.7	–1.5	–3.6	7.2
Labor productivity in manufacturing (real, per hour)	3.2	4.9	3.9	2.3	4.1	4.4	4.3	5.0	1.8
Labor costs in manufacturing (nominal, per hour)	2.5	3.1	4.0	1.5	4.2	2.6	2.7	1.2	9.1
Producer price index (PPI) in industry	0.7	1.0	–2.5	1.8	–0.2	–2.0	–1.5	–3.1	–3.4
Consumer price index (here: HICP)	1.4	0.4	0.3	0.7	0.5	0.0	0.7	0.3	0.0
EUR per 1 CZK, + = CZK appreciation	–3.2	–5.6	0.9	–6.4	–3.4	–0.7	0.2	2.0	2.1
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	7.0	6.2	5.1	6.0	5.8	6.0	5.0	4.9	4.5
Employment rate (%, 15–64 years)	67.7	69.0	70.2	69.3	69.8	69.4	70.2	70.5	70.8
Key interest rate per annum (%)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
CZK per 1 EUR	26.0	27.5	27.3	27.6	27.6	27.6	27.4	27.1	27.1
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	5.8	5.9	8.0	4.8	5.9	5.6	7.0	8.8	8.0
	Contributions to year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	11.3	5.8	7.2	4.6	0.1	0.5	2.2	3.5	6.7
Domestic credit of the banking system	5.2	12.1	10.2	4.9	8.1	8.9	6.8	5.5	2.0
of which: claims on the private sector	4.8	5.8	7.7	2.3	2.9	3.2	4.5	6.3	4.6
claims on households	3.1	2.5	4.0	1.4	1.0	1.1	2.1	2.2	2.8
claims on enterprises	1.6	3.3	3.7	0.9	1.8	2.1	2.4	4.1	1.8
claims on the public sector (net)	0.4	6.3	2.5	2.5	5.2	5.7	2.3	–0.8	–2.6
Other assets (net) of the banking system	–5.6	–5.7	–3.1	–4.6	–2.3	–3.9	–2.1	–0.2	–0.7
	% of GDP								
General government revenues	41.6	40.8	42.2	..	..	..	..	..	..
General government expenditures	42.8	42.8	42.6	..	..	..	..	..	..
General government balance	–1.3	–1.9	–0.4	..	..	..	..	..	..
Primary balance	0.1	–0.7	0.7	..	..	..	..	..	..
Gross public debt	45.1	42.7	41.1	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	56.3	58.4	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	30.0	30.5	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	4.1	5.2	4.7	4.4	3.1	7.5	5.0	3.4	3.3
Services balance	1.7	1.3	1.7	1.2	0.7	1.7	1.8	1.7	1.5
Primary income	–6.1	–6.1	–5.5	–8.2	–4.2	–1.7	–9.2	–8.0	–2.7
Secondary income	–0.3	–0.2	–0.0	–0.9	0.5	1.4	–0.3	–0.2	–0.9
Current account balance	–0.5	0.2	0.9	–3.6	0.2	8.9	–2.6	–3.1	1.2
Capital account balance	2.0	0.8	2.4	0.2	0.7	3.0	4.7	0.7	1.3
Foreign direct investment (net)	0.2	–1.9	0.6	–1.5	0.6	–0.2	–0.6	1.3	1.9
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	63.5	68.7	70.7	66.3	68.7	68.7	68.8	73.0	70.7
Gross official reserves (excluding gold)	25.8	28.8	35.9	27.9	28.8	30.9	32.0	34.7	35.9
	Months of imports of goods and services								
Gross official reserves (excluding gold)	4.4	4.5	5.5	4.4	4.5	4.8	4.9	5.3	5.5
	EUR million, period total								
GDP at current prices	156,816	154,722	163,985	39,536	40,502	37,477	40,954	42,166	43,387

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

7 Hungary: EU funds and monetary policy support growth and fiscal consolidation in 2015

GDP grew unexpectedly strongly at 3.2% in the final quarter of 2015. The acceleration was attributable mainly to the renewed strengthening of investment activity on the back of strong public investment. Consumption growth of both households and the general government also gained pace. The former was potentially linked to accelerating real wage growth, decreasing unemployment and improving consumer sentiment, whereas household credit continued to contract, partly because the remaining foreign currency household loans were converted in December 2015. Government consumption may have been supported by the year-end spending of available budgetary resources. The contribution of net exports to GDP growth decreased sharply at the end of 2015, as weakening demand from other EU Member States caused export growth to slow down, while import growth remained steady. Destocking shaved a considerable 1.2 percentage points off the GDP growth rate in the fourth quarter of 2015. High-frequency indicators from early 2016 signaled a slowdown of activity in various segments of the economy.

GDP growth picks up in fourth quarter of 2015

Hungary's general government budget deficit decreased to 2.0% of GDP in 2015, substantially below the target of 2.4%. For 2016, the government envisages a deficit of 1.8%. The European Commission's 2015 Fiscal Sustainability Report sees no significant short-term risks to fiscal sustainability in Hungary, although the high (albeit diminishing) share of government debt denominated in foreign currencies and/or held by foreign investors, and the share of NPLs in the banking sector, point to some challenges. Over the medium term, the report considers Hungary to be at medium fiscal risk (due to a moderately high stock of debt at around 60% of GDP at the end of the projection period combined with the sensitivity to growth and interest rate shocks), while no sustainability risks appear over the long run.

2015 budget deficit well below target

In response to a downshift in the expected path of inflation, the Hungarian National Bank (MNB) cut its policy rate to 1.2% in March 2016 after having kept it stable since July 2015. It also hinted at further rate cuts in the pipeline. The MNB has also introduced other changes to its monetary policy toolkit (e.g. a downward shift in the interest rate corridor for overnight standing facilities, the abolishment of the two-week deposit facility, an increase in the volume and an improvement of the terms of preferential interest rate swap facilities), which should support banks' purchase of long-term government securities and thus help enable more stable and cheaper domestic financing of government debt. As a side effect, however, the move will increase the already comparatively large weight of domestic government securities on banks' balance sheets.

Central bank sets further monetary stimuli

In addition, from the beginning of 2016, the MNB also adapted its Funding for Growth Scheme with an eye to making bank lending less dependent on central bank funding. The MNB's new Growth Supporting Programme narrows the scope for favorable domestic currency financing for SMEs while introducing favorable foreign currency financing for SMEs with natural foreign currency hedging. In addition, a new Market-Based Lending Scheme offers banks the possibility to better manage their interest rate and liquidity risks related to lending to SMEs. In addition, the MNB has committed itself to lowering capital requirements with respect to lending to SMEs. Lending to the corporate sector may also be aided by the removal of distressed commercial real estate assets from banks' balance sheets.

Table 6

Main economic indicators: Hungary

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	1.9	3.7	2.9	3.4	3.3	3.5	2.7	2.4	3.2
Private consumption	0.3	1.8	3.0	1.0	2.9	3.3	2.7	2.7	3.4
Public consumption	2.4	2.9	0.6	3.1	4.3	–3.3	–2.4	3.5	4.3
Gross fixed capital formation	7.3	11.2	1.9	12.7	1.4	–5.5	5.0	–1.4	6.5
Exports of goods and services	6.4	7.6	8.4	7.2	6.4	8.7	8.8	8.6	7.7
Imports of goods and services	6.3	8.5	7.8	9.7	6.5	7.4	7.5	8.1	8.0
	Contribution to GDP growth in percentage points								
Domestic demand	1.4	3.9	1.8	4.7	3.0	1.7	1.0	1.3	3.0
Net exports of goods and services	0.5	–0.2	1.2	–1.2	0.2	1.8	1.7	1.1	0.2
Exports of goods and services	5.5	6.7	7.5	6.3	5.4	8.1	7.9	7.6	6.6
Imports of goods and services	–5.1	–6.9	–6.4	–7.5	–5.2	–6.3	–6.2	–6.5	–6.4
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	0.9	1.9	3.3	2.3	3.3	4.7	3.2	3.2	1.9
Unit labor costs in manufacturing (nominal, per hour)	3.1	–2.4	–0.2	–1.2	0.5	–0.7	0.8	–0.2	–0.7
Labor productivity in manufacturing (real, per hour)	0.6	5.9	4.3	4.4	3.0	4.1	3.6	4.2	5.1
Labor costs in manufacturing (nominal, per hour)	3.6	3.4	4.0	3.1	3.5	3.3	4.4	4.0	4.3
Producer price index (PPI) in industry	0.6	–0.4	–0.9	–0.3	0.4	–2.2	0.2	–0.6	–1.1
Consumer price index (here: HICP)	1.7	0.0	0.1	0.1	–0.4	–0.9	0.4	0.2	0.6
EUR per 1 HUF, + = HUF appreciation	–2.6	–3.8	–0.4	–4.6	–3.6	–0.3	0.0	0.1	–1.3
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	10.3	7.8	6.9	7.4	7.2	7.8	6.9	6.5	6.2
Employment rate (%, 15–64 years)	58.1	61.8	64.0	62.6	62.6	62.4	63.8	64.8	64.8
Key interest rate per annum (%)	4.4	2.4	1.6	2.1	2.1	2.1	1.8	1.4	1.4
HUF per 1 EUR	296.9	308.7	309.9	312.3	308.5	308.9	305.9	312.1	312.6
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	5.5	5.6	6.2	6.0	5.6	4.8	3.9	4.1	6.2
	Contributions to year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	11.7	14.5	9.0	16.0	7.5	5.1	2.5	–0.3	1.5
Domestic credit of the banking system	–11.6	0.6	2.3	–7.5	0.4	–3.4	1.3	2.4	1.8
of which: claims on the private sector	–18.1	–4.9	–8.1	–3.1	–0.3	–5.2	–5.6	–6.1	–7.4
claims on households	–9.6	–3.0	–5.3	–1.5	–0.6	–3.7	–3.8	–4.1	–4.4
claims on enterprises	–8.5	–1.9	–2.8	–1.8	0.3	–1.6	–1.8	–2.0	–3.0
claims on the public sector (net)	6.4	5.5	10.4	–4.3	0.7	1.8	6.9	8.5	9.2
Other assets (net) of the banking system	2.0	–3.7	0.8	–2.6	–2.3	3.1	0.1	2.0	3.0
	% of GDP								
General government revenues	47.0	47.5	48.7	..	..	..	..	..	..
General government expenditures	49.6	49.8	50.7	..	..	..	..	..	..
General government balance	–2.6	–2.3	–2.0	..	..	..	..	..	..
Primary balance	1.9	1.7	1.6	..	..	..	..	..	..
Gross public debt	76.8	76.2	75.3	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	91.8	88.7	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	28.1	25.3	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	3.4	2.4	3.9	2.9	1.8	6.0	2.6	3.5	3.8
Services balance	3.9	4.7	4.7	5.9	3.7	4.4	5.2	6.3	2.9
Primary income	–2.9	–4.5	–3.7	–4.5	–4.1	–3.1	–4.3	–3.9	–3.4
Secondary income	–0.4	–0.6	–0.5	–0.1	–0.8	–1.7	–0.2	–0.5	0.1
Current account balance	4.0	2.0	4.4	4.2	0.7	5.7	3.3	5.4	3.4
Capital account balance	3.6	3.7	4.4	3.4	7.0	3.1	4.4	2.4	7.3
Foreign direct investment (net)	–1.1	–2.8	0.2	–4.8	–7.6	0.8	4.5	–2.1	–2.0
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	118.4	114.8	108.9	117.1	114.8	120.6	115.7	108.4	108.9
Gross official reserves (excluding gold)	33.3	33.1	27.8	34.4	33.1	35.0	32.6	29.8	27.8
	Months of imports of goods and services								
Gross official reserves (excluding gold)	5.0	4.8	4.0	5.0	4.8	5.1	4.7	4.3	4.0
	EUR million, period total								
GDP at current prices	101,268	104,245	108,731	26,648	28,435	24,304	26,924	27,865	29,639

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

8 Poland: further fiscal consolidation postponed

Export growth remains stable, while lower investment growth reduces import growth

GDP growth reached 3.6% in 2015, after having accelerated to 3.8% in the fourth quarter. Total final demand grew by 4.3% in 2015, as real exports rose by 6.5% and domestic demand augmented by 3.3%. Both demand components yielded a roughly equal growth contribution, causing real imports to expand by 6.0%, which implied a net export contribution of 0.4% of GDP. Compared to 2014, export growth remained stable, while domestic demand growth, and thus import growth, strongly decelerated so that the net export contribution switched into positive territory. The goods and services surplus increased to 2.8% of GDP, and the current account deficit narrowed to 0.2%, while the capital account again reached a surplus of 2.4% on the back of EU transfers. The main reason domestic demand growth declined was that inventory buildup contracted. Fixed investment growth decelerated to the still strong rate of 6%. Business investment was supported by contained ULCs, stable profitability, a strong liquidity position, robust corporate loan growth, increased industrial confidence and rising export orders. Public investment benefited from EU funds. Housing investment remained supported by higher incomes and stable housing loan growth. On average in 2015, the real wage sum increased through higher employment, higher nominal wages and deflation. The latter caused the real wage sum to grow more strongly than in 2014 and real retirement pensions to rise at a stable rate. In parallel, consumer confidence improved substantially. However, private consumption expanded less than real income, possibly due to deflation expectations. Moreover, both real wage sum growth and private consumption growth were markedly lower in the second half of 2015 than in the first half. The new government aims at fostering investment. The President of the Republic of Poland submitted a proposal for the conversion of Swiss franc-denominated loans; the central bank and supervisory authority assessed this proposal as problematic for financial stability.

Further deflation expected in the coming quarters

In manufacturing, labor cost rises declined while labor productivity growth remained unchanged. Thus, the rise in ULCs slowed to close to the rate in the euro area. As, in addition, the złoty's euro value remained unchanged on average in 2015, external price competitiveness was maintained. The złoty depreciated against the euro in the second half of 2015; further depreciation in January 2016 was reversed until the end of March. In February, annual headline inflation was negative (–0.2% HICP, –0.8% national CPI), while core inflation stood at 0.3% (HICP) and –0.1% (CPI), with deflation in industrial goods and inflation in services. The Polish Monetary Policy Council (MPC), pursuing an inflation target of 2.5% (CPI), has kept rates on hold since March 2015. On April 6, 2016, it decided to keep the key interest rate at 1.5%, expecting further headline deflation in the coming quarters and stable economic growth.

Fiscal deficit remains close to 3% of GDP

In 2015, the gross general government deficit declined significantly to 2.6% of GDP, a bit lower than the 2.8% projected in the European Commission's autumn 2015 forecast, although revenues of 0.5% of GDP from the sale of mobile internet frequencies were moved to 2016. The headline deficit is seen as rising no higher than 2.8%, as the costs of the new child benefit of 0.9% of GDP are offset by the revenues from the aforementioned sale and from the new taxes on financial institutions and on large retail markets. But the European Commission's staff expects the structural deficit of 2.7% of GDP to climb to 3.2% of GDP in 2016. General government gross debt is anticipated to reach 52.5% of GDP at the end of 2016.

Table 7

Main economic indicators: Poland

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	1.3	3.3	3.6	2.9	3.8	3.9	3.4	3.5	3.8
Private consumption	0.2	2.5	3.0	2.5	3.1	3.6	3.5	2.6	2.2
Public consumption	2.2	4.9	3.5	5.1	7.6	3.5	2.8	2.4	5.0
Gross fixed capital formation	–1.1	9.8	6.1	9.1	9.6	11.3	6.0	4.9	4.9
Exports of goods and services	6.1	6.4	6.5	4.5	7.9	8.3	4.9	3.9	9.1
Imports of goods and services	1.7	10.0	6.0	10.4	10.1	7.3	5.0	2.8	8.8
	Contribution to GDP growth in percentage points								
Domestic demand	–0.7	4.8	3.3	5.5	4.7	3.2	3.3	3.0	3.6
Net exports of goods and services	1.9	–1.5	0.4	–2.6	–0.9	0.6	0.0	0.6	0.2
Exports of goods and services	2.7	3.0	3.1	2.2	3.4	4.0	2.3	1.9	4.0
Imports of goods and services	–0.8	–4.4	–2.7	–4.8	–4.2	–3.4	–2.3	–1.3	–3.8
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	0.5	–0.0	–1.7	–0.2	1.4	–1.8	–2.1	–1.2	–1.9
Unit labor costs in manufacturing (nominal, per hour)	–0.2	2.0	1.0	3.5	3.5	0.8	1.1	1.8	0.4
Labor productivity in manufacturing (real, per hour)	3.6	2.4	2.7	0.7	0.7	5.1	1.9	2.6	1.4
Labor costs in manufacturing (nominal, per hour)	3.3	4.6	3.7	4.3	4.3	5.9	3.0	4.5	1.7
Producer price index (PPI) in industry	–1.2	–1.3	–2.1	–1.5	–1.6	–2.4	–1.9	–2.3	–1.6
Consumer price index (here: HICP)	0.8	0.1	–0.7	–0.1	–0.4	–1.2	–0.6	–0.5	–0.5
EUR per 1 PLN, + = PLN appreciation	–0.3	0.3	0.0	1.7	–0.6	–0.2	2.0	–0.3	–1.2
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	10.5	9.1	7.6	8.3	8.2	8.7	7.5	7.1	7.0
Employment rate (%, 15–64 years)	60.0	61.7	62.9	62.5	62.6	61.9	62.6	63.5	63.7
Key interest rate per annum (%)	2.9	2.4	1.6	2.5	2.0	1.8	1.5	1.5	1.5
PLN per 1 EUR	4.2	4.2	4.2	4.2	4.2	4.2	4.1	4.2	4.3
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	6.2	8.2	9.1	7.9	8.2	8.7	8.2	8.3	9.1
	Contributions to year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	0.3	0.4	4.5	1.2	3.1	5.2	2.5	1.8	1.4
Domestic credit of the banking system	9.5	18.2	20.2	10.1	9.5	8.1	9.5	8.1	9.9
of which: claims on the private sector	6.7	11.5	14.3	6.1	6.9	7.6	7.7	7.4	6.8
claims on households	3.0	6.1	7.2	3.2	3.2	4.2	4.7	3.6	3.7
claims on enterprises	3.7	5.4	7.0	3.0	3.7	3.3	3.0	3.8	3.1
claims on the public sector (net)	2.8	6.7	5.9	3.9	2.6	0.5	1.8	0.7	3.0
Other assets (net) of the banking system	1.2	–3.6	–6.7	–3.4	–4.4	–4.5	–3.8	–1.6	–2.1
	% of GDP								
General government revenues	38.4	38.9	38.9	..	..	..	..	..	..
General government expenditures	42.4	42.2	41.5	..	..	..	..	..	..
General government balance	–4.0	–3.3	–2.6	..	..	..	..	..	..
Primary balance	–1.5	–1.4	–0.8	..	..	..	..	..	..
Gross public debt	56.0	50.5	51.3	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	44.1	45.0	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	35.4	34.9	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	–0.1	–0.8	0.5	–0.4	–1.1	1.7	0.2	–0.8	0.9
Services balance	1.9	2.1	2.3	1.9	1.9	2.2	2.7	2.3	2.0
Primary income	–3.0	–3.2	–2.8	–4.2	–2.0	–2.1	–2.5	–3.8	–2.9
Secondary income	–0.1	–0.1	–0.2	0.4	0.1	–0.9	0.3	0.1	–0.4
Current account balance	–1.3	–2.0	–0.2	–2.4	–1.1	0.9	0.8	–2.2	–0.4
Capital account balance	2.3	2.4	2.4	1.9	2.6	3.7	1.1	4.4	0.7
Foreign direct investment (net)	–0.8	–2.0	–0.7	–3.3	–0.1	–2.4	1.1	–1.3	–0.3
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	70.7	71.1	70.3	71.9	71.1	74.4	73.4	72.5	70.3
Gross official reserves (excluding gold)	18.8	19.3	19.6	18.9	19.3	21.0	21.4	20.6	19.6
	Months of imports of goods and services								
Gross official reserves (excluding gold)	5.1	5.0	5.0	5.0	5.0	5.5	5.6	5.3	5.0
	EUR million, period total								
GDP at current prices	394,674	410,776	427,716	101,597	113,258	98,885	105,710	104,731	118,390

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

9 Romania: strong but unbalanced growth; political cycle in the spotlight

Consumption-driven growth goes on

GDP growth remained buoyant in the second half of 2015, mainly driven by further accelerating private consumption growth and a continued recovery of GFCF. Fiscal and wage policy measures as well as consumer loans boosted private consumption growth. GFCF picked up in the final quarter of 2015, reflecting public investment activity related to the accelerated absorption of EU funds. Yet, given its subdued base level, GFCF contributed only 1.8 percentage points to overall GDP growth in 2015, much less than private consumption (3.8 percentage points). Export growth decelerated further in the third quarter of 2015 and even became negative in the final quarter against the background of deteriorating competitiveness. Import growth decelerated somewhat as well, but the contribution of net exports to growth remained clearly negative.

Economic policymaking mirrors political cycle

Fiscal and wage policy measures enacted ahead of parliamentary elections in November 2016 are procyclical, which is also visible in private consumption figures. The standard VAT rate was cut by 4 percentage points to 20% from January 2016, and the ongoing series of minimum wage hikes will be continued in May 2016. Both the IMF and the European Commission cautioned that the budget deficit would surpass 3% of GDP in 2017 in a no-policy-change scenario. Minimum wage hikes support private consumption, but weigh on external price competitiveness. While the exchange rate against the euro remained broadly stable, wage increases in the manufacturing sector were not met by productivity increases in 2015. Legislative initiatives in the financial sector, such as the give-in-payment law, which allows retail mortgage borrowers to return real estate collateral to banks in exchange for writing off their loans, drew criticism from the IMF, the European Commission and the ECB, in particular for its retroactive character. Such initiatives overshadow the progress made in the banking sector in recent years, for example in reducing NPLs and in decreasing in the loan-to-deposit ratio.

Small but widening current account deficit

The current account balance deteriorated in the second half of 2015. After having shown a balanced position in the second half of 2014, the current account deteriorated throughout the past year, bringing the deficit to 1.1% of GDP in 2015. The worsening was mainly driven by a widening primary income deficit, but the trade deficit was also higher. As the capital account remained robust, Romania maintained a positive net lending position from the current and capital accounts, however. This implied a further reduction of the gross external debt ratio, but the reduction decelerated in the second half of 2015. Net FDI inflows remained positive at a moderate level.

Tax cuts fuel deflation, policy rate unchanged

The reduction of indirect taxes has impacted consumer prices and in turn real disposable income. After HICP inflation turned negative in the second half of 2015, it fell deeper into negative territory in the first two months of 2016. The year-on-year HICP rate dropped to –2.1% in February 2016. Without VAT rate cuts, HICP inflation would have remained clearly positive. The Banca Națională a României (BNR) projects the headline CPI rate (the inflation rate on which its inflation target is based; –2.7% in February 2016) to become positive again in June 2016 and to enter the target variation band of 2.5% ±1 percentage point in early 2017. The BNR has kept its policy rate unchanged at 1.75% since May 2015, pointing inter alia to risks induced by the fiscal and wage policy stance.

Table 8

Main economic indicators: Romania

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	3.5	3.0	3.7	3.2	2.8	4.3	3.4	3.6	3.7
Private consumption	1.3	3.9	6.1	3.7	4.1	4.8	5.4	6.4	7.6
Public consumption	–6.8	0.5	1.8	1.8	2.6	2.9	1.2	2.4	1.2
Gross fixed capital formation	–6.8	3.1	7.0	4.4	3.1	8.1	8.2	3.7	11.0
Exports of goods and services	18.1	8.4	4.6	8.0	4.8	7.9	8.0	4.6	–1.3
Imports of goods and services	9.4	8.3	8.6	6.0	10.6	11.3	9.9	9.7	4.4
	Contribution to GDP growth in percentage points								
Domestic demand	–0.1	3.2	5.3	2.3	6.1	6.7	7.3	4.4	3.6
Net exports of goods and services	3.6	–0.2	–1.6	0.3	–3.5	–2.0	–1.9	–1.5	–1.1
Exports of goods and services	7.4	3.4	1.9	2.1	0.6	4.2	3.3	1.8	–0.4
Imports of goods and services	–3.7	–3.6	–3.5	–1.9	–4.0	–6.2	–5.1	–3.3	–0.7
	Year-on-year change of the period average in %								
Unit labor costs in the whole economy (nominal, per person)	0.5	2.6	–1.4	4.5	5.3	0.4	–4.2	–0.3	–1.3
Unit labor costs in manufacturing (nominal, per hour)	–0.5	–0.3	9.0	2.2	5.1	7.6	9.4	9.3	9.6
Labor productivity in manufacturing (real, per hour)	6.2	5.8	–0.3	2.8	2.2	0.6	–0.8	–1.2	0.3
Labor costs in manufacturing (nominal, per hour)	5.6	5.6	8.7	5.1	7.3	8.2	8.6	8.0	9.9
Producer price index (PPI) in industry	2.1	–0.1	–2.2	0.3	–0.5	–1.7	–2.3	–2.6	–2.3
Consumer price index (here: HICP)	3.2	1.4	–0.4	1.5	1.4	0.5	0.4	–1.5	–1.0
EUR per 1 RON, + = RON appreciation	0.9	–0.6	–0.0	0.6	0.4	1.1	–0.4	–0.3	–0.5
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	7.4	7.1	7.1	6.8	7.0	7.6	7.0	6.8	6.8
Employment rate (%, 15–64 years)	60.1	61.0	61.4	62.6	60.8	59.1	62.0	63.2	61.4
Key interest rate per annum (%)	4.8	3.3	1.9	3.3	2.8	2.4	1.8	1.8	1.8
RON per 1 EUR	4.4	4.4	4.4	4.4	4.4	4.5	4.4	4.4	4.5
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	8.8	8.4	9.3	5.1	8.4	6.5	8.8	8.4	9.3
	Contributions to year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	20.7	26.6	17.7	10.9	11.9	8.8	6.0	4.4	5.4
Domestic credit of the banking system	–5.4	–10.9	0.6	–6.3	–5.1	–1.4	3.1	3.3	5.3
of which: claims on the private sector	–1.9	–6.3	–0.1	–3.9	–2.7	–2.8	0.1	0.5	2.5
claims on households	–0.5	–1.1	2.0	–1.1	–0.5	–0.0	1.5	1.5	2.2
claims on enterprises	–1.4	–5.2	–2.0	–2.8	–2.3	–2.8	–1.4	–1.0	0.3
claims on the public sector (net)	–3.5	–4.7	0.7	–2.3	–2.4	1.4	3.0	2.7	2.9
Other assets (net) of the banking system	–3.6	2.3	0.2	0.5	1.7	–0.9	–0.2	0.6	–1.4
	% of GDP								
General government revenues	33.1	33.5	34.8	..	..	..	..	..	..
General government expenditures	35.2	34.3	35.5	..	..	..	..	..	..
General government balance	–2.1	–0.9	–0.7	..	..	..	..	..	..
Primary balance	–0.4	0.9	0.9	..	..	..	..	..	..
Gross public debt	38.0	39.8	38.4	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	48.0	44.7	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	19.0	17.9	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	–4.0	–4.2	–4.9	–3.5	–5.1	–4.0	–4.6	–4.7	–5.9
Services balance	3.3	3.9	4.3	3.4	3.5	4.7	4.7	4.4	3.8
Primary income	–2.2	–1.3	–2.4	–2.0	1.2	–1.3	–4.1	–2.2	–1.9
Secondary income	1.9	1.1	1.8	1.5	0.9	2.2	1.5	1.3	2.1
Current account balance	–1.1	–0.5	–1.1	–0.7	0.7	1.7	–2.5	–1.2	–1.9
Capital account balance	2.1	2.6	2.4	1.0	3.5	4.9	1.7	2.0	1.8
Foreign direct investment (net)	–2.0	–1.8	–1.7	–2.1	–1.2	–2.6	–2.1	–2.2	–0.4
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	68.4	62.8	56.3	62.9	62.8	60.5	58.9	56.8	56.3
Gross official reserves (excluding gold)	22.7	21.4	20.2	20.8	21.4	20.0	19.5	18.5	20.2
	Months of imports of goods and services								
Gross official reserves (excluding gold)	6.7	6.2	5.8	6.1	6.2	5.8	5.6	5.3	5.8
	EUR million, period total								
GDP at current prices	144,102	150,359	159,791	41,603	44,633	31,530	36,607	44,539	47,115

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

10 Turkey: economy remains resilient despite political headwinds

Pronounced shift toward domestic-driven GDP growth

GDP growth increased to 4% in 2015, with the contribution of domestic growth drivers picking up. In particular, private consumption growth accelerated to 4.5% on the back of still buoyant credit growth and lower oil prices. Conditions on the labor market, however, were less supportive for growth, as the unemployment rate posted a minor increase to 10.5% in 2015. In addition and despite some deceleration in the second half of 2015, GFCF growth turned positive in 2015. External demand exerted a drag on growth in 2015. Available high-frequency indicators for the first months of 2016 show a mixed picture: Industrial production posted a robust increase, while retail sales and consumer confidence indices broadly slowed their pace of increase, reflecting, among other things, heightened political uncertainty.

Lower current account deficit, shift toward longer-term financing resources

Exports contracted by 8.7%, not least due to economic downturns in major trading partner countries (Russia and Iraq) and a deteriorating situation of the tourism sector. Also, exports to the EU weakened even though the Turkish lira depreciated substantially vis-à-vis the euro and labor productivity improved slightly. At the same time, import growth slipped deeper into negative territory in 2015 (–14.4%) on an annual basis. The resulting decline in the trade deficit to 6.7% of GDP as of end-2015 translated into a similar drop of the current account deficit to 4.6% of GDP. In financing the current account deficit, a moderate shift to longer-term financing occurred, with FDI inflows increasing and thus financing one-third of the current account deficit in 2015. At the same time, portfolio investment registered net outflows, also leading to a decline in the central bank's reserve assets.

Central bank refrains from loosening monetary stance in view of soaring inflationary pressures

Against the background of the exchange rate pass-through, headline inflation in 2015 hovered above the inflation target of 5% ±2% (to be met in December). In December 2015, inflation stood at 8.8% and edged up to an average of 9.2% in the first two months of 2016, especially after tax hikes on tobacco, alcohol and electricity.

The depreciation of the Turkish lira continued in the second half of 2015 and through the first three months of 2016, losing on average 28% against the U.S. dollar (14% against the euro). The Central Bank of the Republic of Turkey (CBRT) has kept the overnight borrowing rate and the one-week repo rate unchanged since February 2015; it reduced the overnight lending rate marginally by 25 basis points to 10.5% in March 2016. To simplify the monetary policy framework, in October 2015 the CBRT took minor steps to overhaul liquidity management regulations.

Credit growth slows

Credit growth decelerated somewhat in 2015 to slightly above 13% in exchange rate-adjusted terms, mainly reflecting lower consumer loan growth. Thus, to alleviate supply constraints on consumer lending, the Banking Regulation and Supervisory Agency introduced an arrangement to cut the risk weight of bank capital as from March 2016.

Budget deficit unchanged despite higher expenditures

Revenue growth was solid in the first three quarters of 2015 mainly on the back of tax receipts and social contributions. However, expenditures rose rapidly at the same time, leaving the budget deficit of the general government broadly flat at 1.4% of GDP. For 2016, some fiscal easing is envisaged, including the minimum wage hike by 30% in January 2016 and a subsidy to employers, the fiscal costs of which should be partly offset by increases in tax revenues. Overall, the general government deficit is projected to remain broadly unchanged at 1.3% of GDP.

Table 9

Main economic indicators: Turkey

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	4.2	3.0	4.0	1.8	3.0	2.5	3.7	3.9	5.7
Private consumption	5.1	1.4	4.5	0.1	2.6	4.3	5.5	3.6	4.7
Public consumption	6.5	4.7	6.7	6.6	2.0	2.8	7.3	8.0	8.1
Gross fixed capital formation	4.4	–1.3	3.6	–0.4	–1.0	0.6	10.0	–0.0	3.5
Exports of goods and services	–0.2	7.4	–0.8	8.7	3.7	–1.4	–2.7	–1.4	2.1
Imports of goods and services	9.0	–0.3	0.3	–1.7	4.6	3.7	1.5	–1.2	–2.6
	Contribution to GDP growth in percentage points								
Domestic demand	7.4	1.1	4.3	–1.3	4.1	4.2	4.1	4.5	4.3
Net exports of goods and services	–2.3	1.8	–0.3	2.4	–0.3	–1.3	–1.1	–0.1	1.2
Exports of goods and services	–0.1	1.7	–0.2	2.0	0.9	–0.3	–0.7	–0.3	0.5
Imports of goods and services	–2.3	0.1	–0.1	0.4	–1.2	–1.0	–0.4	0.3	0.7
	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)	10.3	12.8	10.3	12.9	13.8	12.9	9.6	11.2	7.7
Labor productivity in manufacturing (real, per hour)	1.6	1.3	4.1	1.4	–0.4	1.1	5.1	4.7	5.4
Gross wages in manufacturing (nominal, per hour)	12.1	14.4	14.9	14.5	13.3	14.1	15.2	16.5	13.5
Producer price index (PPI) in industry	4.5	10.2	5.3	9.7	8.3	3.3	6.0	6.3	5.6
Consumer price index (here: HICP)	7.5	8.9	7.7	9.4	8.8	7.5	7.9	7.4	8.2
EUR per 1 TRY, + = TRY appreciation	–8.6	–12.9	–3.8	–8.9	–2.5	9.5	–1.8	–9.8	–11.3
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	8.9	10.1	10.5	10.2	10.9	11.4	9.5	10.3	10.6
Employment rate (%, 15–64 years)	49.5	49.5	50.2	50.2	49.1	48.4	51.1	51.1	50.0
Key interest rate per annum (%)	4.8	8.7	7.6	8.3	8.3	7.8	7.5	7.5	7.5
TRY per 1 EUR	2.5	2.9	3.0	2.9	2.8	2.8	3.0	3.2	3.2
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	21.1	11.8	16.2	14.9	11.8	15.8	18.3	20.4	16.2
	Contributions to year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	–5.2	–10.8	–6.5	–3.6	–4.0	–4.2	–4.7	–2.8	–2.3
Domestic credit of the banking system	51.9	57.7	48.6	24.0	21.5	25.2	27.8	27.9	24.3
of which: claims on the private sector	55.6	58.6	47.2	22.3	20.8	25.1	28.6	28.9	23.6
claims on households	15.2	11.4	5.7	2.9	2.5	3.6	4.0	3.4	2.9
claims on enterprises	40.4	47.2	41.5	19.4	18.3	21.5	24.6	25.5	20.7
claims on the public sector (net)	–3.7	–0.9	1.4	1.8	0.7	0.0	–0.8	–1.0	0.7
Other assets (net) of the banking system	–12.9	–11.7	–12.2	–5.5	–5.7	–5.2	–4.8	–4.7	–5.7
	% of GDP								
General government revenues	..	..	..	..	..	..	..	..	..
General government expenditures	..	..	..	..	..	..	..	..	..
General government balance	0.2	–1.5	–1.4	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt	36.1	33.5	33.2	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	..	..	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	–9.8	–8.0	–6.7	–7.5	–9.2	–6.2	–7.7	–6.6	–6.1
Services balance	2.8	3.1	3.3	5.1	2.6	1.6	3.0	6.0	2.6
Primary income	–1.1	–1.1	–1.4	–1.0	–1.1	–1.5	–1.8	–1.0	–1.2
Secondary income	0.2	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.3
Current account balance	–7.9	–5.8	–4.6	–3.2	–7.6	–6.1	–6.3	–1.5	–4.4
Capital account balance	–0.0	–0.0	–0.0	–0.0	–0.0	–0.0	0.0	–0.0	–0.0
Foreign direct investment (net)	–1.1	–0.7	–1.5	–0.2	–0.3	–1.4	–1.0	–2.4	–1.2
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	50.1	59.5	60.1	57.3	59.5	62.4	59.1	57.9	60.1
Gross official reserves (excluding gold)	13.1	14.6	13.2	14.9	14.6	15.0	14.0	14.0	13.2
	Months of imports of goods and services								
Gross official reserves (excluding gold)	4.8	5.4	5.1	5.5	5.4	5.7	5.3	5.3	5.1
	EUR million, period total								
GDP at current prices	619,300	602,390	646,425	161,420	157,942	160,081	163,560	163,569	159,215

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

11 Russia: further slide of oil price prolongs recession

Russia's recession has reached its trough

The contraction of the Russian economy has reached its bottom. In 2015, GDP declined by 4.5% in the second quarter, 3.7% in the third quarter, and 3.8% in the fourth quarter. The annual contraction came to 3.7%. The Central Bank of Russia (CBR) estimates the decline of GDP to have eased to 1.7%–2.0% in the first quarter of 2016. The slump in 2015 was largely triggered by the near-halving of the oil price to USD 51.2 per barrel (Urals grade crude, annual average), and to a minor degree by the impact of Western sanctions in connection with the Ukrainian crisis. The economic downturn was driven by shrinking domestic demand (particularly private consumption, but also fixed investment). Public consumption also dropped slightly, so that the only positive contribution to growth came from exports. Combined with the substantial contraction of imports, net exports expanded powerfully.

Helped by a base effect and weak demand, inflation falls to single digits

The contraction of private consumption was driven by falling real wages against the backdrop of double-digit inflation, itself triggered by the plunge of the ruble. The Russian currency lost 37% of its external value against the U.S. dollar (annual average) in 2015. This strong depreciation also had a profound impact on imports in the second half of 2015. Due to the base effect (the impact of the sharp rise of prices in late 2014 has dissipated), persisting weak demand, and the shrinking ratio of imports to GDP, CPI inflation (year on year) declined from 15%–16% in the summer to 12.9% at end-2015, dropping further to 8.1% at end-February 2016.

Continuing oil price and ruble weakness prompt the central bank to keep its key rate on hold

Despite this moderation, inflationary pressures persist, fueled by oil price and ruble weaknesses. Therefore, after its last reduction of the key interest rate in August 2015, the CBR has (so far) held the repo auction rate at 11%, pointing to still elevated inflationary expectations. Private net capital outflows from Russia sharply diminished to USD 57 billion in 2015 (from the crisis-triggered height of USD 153 billion in 2014). This decline largely reflected the decrease in debt service and repayment and the repatriation of some assets by Russian residents (banks and businesses).

Forced external deleveraging by state-owned banks and firms in the context of Western sanctions played an important role in the further drop of Russia's total external debt to USD 515 billion (39% of GDP) at end-2015. Given the slide of the ruble and the ongoing recession, financial intermediation continues to show weaknesses: Lending contracted 6% in the year until end-February 2016 (in real terms and exchange rate-adjusted), while deposits increased marginally (+1%). After a limited boost through recapitalization, the capital adequacy ratio again came under pressure and eased to 12.1% at end-January 2016.

Fiscal tightening can be expected, while Russia's external position remains satisfactory

The general government budget deficit in 2015 rose to 3.5% of GDP and was partly financed by the Reserve Fund, whose level fell by about one-third over the year to USD 49.9 billion (around 4% of GDP) at end-February 2016. The National Wealth Fund's assets declined by about 5% to USD 71.3 billion (about 5.5% of GDP) in the same period. The budget plan for 2016, still based on an average annual oil price of USD 50 per barrel, is to be revised shortly. Expanding exports and plummeting imports contributed to a further increase of Russia's current account surplus (to 5.0% of GDP) in 2015. The country's international reserves (including gold) rose slightly in the six months to late March 2016 to USD 384 billion. Russia boasts an active international investor position equivalent to 23.8% of GDP at end-2015.

Table 10

Main economic indicators: Russia

	2013	2014	2015	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
	Year-on-year change of the period total in %								
GDP at constant prices	1.3	0.7	–3.7	0.9	0.2	–2.8	–4.5	–3.7	–3.8
Private consumption	4.3	1.5	–9.5	1.0	1.7	–6.9	–8.0	–10.4	–12.4
Public consumption	1.4	0.2	–1.8	0.3	0.1	–1.8	–1.8	–1.8	–1.7
Gross fixed capital formation	0.9	–2.6	–7.6	–5.6	–2.8	–6.4	–7.3	–11.3	–6.0
Exports of goods and services	4.6	0.6	3.6	1.1	–6.5	5.8	0.5	–1.4	9.8
Imports of goods and services	3.6	–7.6	–25.7	–6.0	–11.8	–26.0	–30.1	–25.4	–21.2
	Contribution to GDP growth in percentage points								
Domestic demand	0.8	–0.9	–9.1	–0.7	–0.5	–8.8	–9.8	–8.0	–9.9
Net exports of goods and services	0.5	1.8	6.2	1.7	0.6	7.0	6.3	5.0	6.4
Exports of goods and services	1.3	0.2	1.0	0.3	–1.8	1.7	0.2	–0.4	2.6
Imports of goods and services	–0.8	1.7	5.1	1.4	2.4	5.3	6.1	5.4	3.9
	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)	7.9	5.6	9.9	5.3	5.2	6.9	13.7	9.7	9.4
Labor productivity in industry (real, per person)	2.3	3.4	–1.8	3.4	4.0	0.9	–3.3	–2.7	–1.8
Average gross earnings in industry (nominal, per person)	10.3	9.2	8.0	9.0	9.5	7.8	9.9	6.7	7.4
Producer price index (PPI) in industry	3.4	6.1	12.4	6.0	5.7	9.7	13.8	12.9	13.1
Consumer price index (here: CPI)	6.8	7.8	15.6	7.7	9.6	16.2	15.8	15.7	14.5
EUR per 1 RUB, + = RUB appreciation	–5.7	–17.0	–25.0	–9.6	–26.0	–32.4	–17.5	–31.8	–17.2
	Period average levels								
Unemployment rate (ILO definition, %, 15–64 years)	5.5	5.2	5.6	4.9	5.2	5.7	5.6	5.3	5.7
Employment rate (%, 15–64 years)	..	..	..	..	..	..	..	..	..
Key interest rate per annum (%)	5.5	7.9	12.6	7.9	10.3	15.5	12.8	11.2	11.0
RUB per 1 EUR	42.3	51.0	68.0	48.1	59.9	71.1	58.1	70.5	72.4
	Nominal year-on-year change in the period-end stock in %								
Broad money (including foreign currency deposits)	15.7	15.5	19.7	10.7	15.5	17.2	17.6	24.0	19.7
	Contributions to year-on-year change of broad money in percentage points								
Net foreign assets of the banking system	2.7	24.6	40.1	4.7	19.0	15.3	17.8	28.3	18.3
Domestic credit of the banking system	35.1	33.6	31.6	14.3	13.9	16.1	15.0	16.3	15.4
of which: claims on the private sector	36.9	43.3	33.7	16.0	22.8	19.3	15.7	16.6	9.5
claims on households	16.5	11.9	2.0	5.3	3.9	1.9	0.1	–1.0	–1.6
claims on enterprises	20.4	31.4	31.7	10.7	18.9	17.3	15.6	17.7	11.1
claims on the public sector (net)	–1.9	–9.7	–2.1	–1.7	–8.9	–3.1	–0.7	–0.3	5.9
Other assets (net) of the banking system	–8.2	–24.7	–33.5	–8.2	–17.4	–14.2	–15.2	–20.7	–14.0
	% of GDP								
General government revenues	34.4	34.3	32.8	..	..	..	..	..	..
General government expenditures	35.6	35.4	36.3	..	..	..	..	..	..
General government balance	–1.2	–1.1	–3.5	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt	9.8	10.8	10.8	..	..	..	..	..	..
	% of GDP								
Debt of nonfinancial corporations (nonconsolidated)	..	..	..	..	..	..	..	..	..
Debt of households and NPISHs (nonconsolidated)	..	..	..	..	..	..	..	..	..
	% of GDP (based on EUR), period total								
Trade balance	8.2	9.3	11.2	8.0	9.4	15.8	12.0	8.6	9.1
Services balance	–2.6	–2.7	–2.8	–3.3	–2.5	–2.9	–2.6	–3.6	–2.0
Primary income	–3.6	–3.3	–2.8	–3.0	–3.3	–2.2	–4.5	–2.1	–2.1
Secondary income	–0.4	–0.4	–0.4	–0.6	–0.5	–0.4	–0.3	–0.6	–0.5
Current account balance	1.6	2.9	5.2	1.1	3.2	10.4	4.6	2.4	4.5
Capital account balance	–0.0	–2.2	–0.0	–1.8	–7.1	–0.0	–0.0	–0.0	–0.0
Foreign direct investment (net)	0.8	1.7	1.3	2.2	3.8	0.3	1.6	2.5	0.5
	% of GDP (rolling four-quarter GDP, based on EUR), end of period								
Gross external debt	32.0	31.8	39.7	33.3	31.9	36.0	36.0	38.2	39.7
Gross official reserves (excluding gold)	20.5	18.1	24.6	20.1	18.2	20.0	20.4	23.0	24.6
	Months of imports of goods and services								
Gross official reserves (excluding gold)	11.6	10.4	13.9	11.7	10.4	11.2	11.6	12.8	13.9
	EUR million, period total								
GDP at current prices	1,675,267	1,533,694	1,194,438	424,470	359,009	256,162	331,809	302,232	304,235

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

Outlook for selected CESEE countries:

Solid growth in CESEE-6 but no bright spots in Russia[1, 2]

Annual economic growth in the CESEE-6[3] region will reach 3.3% per annum from 2016 to 2018, implying some softening compared to 2015. This represents a marginal upward revision in 2016 and 2017 compared to our October 2015 projections, following the much better than expected outcome for 2015 and lower energy prices than previously assumed. In contrast, export growth has been revised downward in line with a more pessimistic outlook for the euro area. Cross-country heterogeneity will decline somewhat over the projection horizon. In all countries, domestic demand will be a major growth driver, fueled mainly by private consumption. With EU funding petering out, investment activity will lose some speed in 2016 but will strengthen over the projection horizon. The second major growth driver, export growth, will weaken somewhat in 2016 and will gradually quicken again in line with the external assumption on euro area growth. The growth differential to the euro area will amount to almost 2 percentage points in 2016 and will shrink to around 1.5 percentage points in 2017 and 2018.

The low oil price combined with Western sanctions will continue to weigh heavily on the Russian economy. We forecast Russian GDP to decrease by 3% in 2016. Domestic demand will shrink in 2016. Private consumption will be curbed by high inflation, frozen public wages and the indexation of pensions at a rate below predicted inflation. Investment activity is in a sorry state. Government expenditure will also be cut. With demand weak, imports are expected to decline in

Table 1

GDP and import projections for 2016 to 2018

	GDP				Imports			
	Eurostat/ Rosstat	OeNB/BOFIT forecasts			Eurostat/ Rosstat	OeNB/BOFIT forecasts		
	2015	2016	2017	2018	2015	2016	2017	2018
	Year-on-year growth in %							
CESEE-6	3.5	3.3	3.3	3.3	7.1	6.5	7.4	7.1
Bulgaria	2.8	2.6	2.7	2.8	4.5	4.3	4.9	5.4
Croatia	1.6	1.8	1.9	2.2	8.6	4.3	4.7	4.7
Czech Republic	4.3	2.4	2.6	2.6	8.1	6.5	8.9	8.3
Hungary	2.9	2.5	2.8	3.1	7.8	7.0	6.8	6.7
Poland	3.6	3.7	3.8	3.5	6.0	6.2	7.4	7.0
Romania	3.8	4.0	3.7	3.7	8.7	8.3	7.3	7.0
Russia	–3.7	–3.0	0.0	1.0	–26.0	–10.0	0.0	5.0

Source: OeNB-BOFIT April 2016 forecast, Eurostat, Rosstat.

[1] *Compiled by Antje Hildebrandt with input from Stephan Barisitz, Martin Feldkircher, Mariya Hake, Mathias Lahnsteiner, Thomas Reininger, Caroline Stern and Zoltan Walko.*

[2] *Cut-off date for data underlying this outlook: March 17, 2016. The projections for the CESEE-6 countries were prepared by the OeNB, those for Russia were prepared by the Bank of Finland in cooperation with the OeNB. All projections are based on the assumption of a continued recovery in the euro area in line with the March 2016 ECB staff macroeconomic projections for the euro area. This implies real annual GDP growth of 1.4% in 2016, 1.7% in 2017 and 1.8% in 2018.*

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

2016. Export growth will be negatively affected by the low oil price. Along with some recovery of the oil price, growth will be zero in 2017 before it starts to revive somewhat in 2018. We assume that oil prices will rise steadily over the projection horizon from an average of USD 40.6 per barrel in 2016 to USD 49 per barrel in 2018.[4]

1 CESEE-6: robust economic growth largely driven by an upswing in private consumption

In 2015, economic growth in the CESEE-6 region mounted to 3.5% compared to 2.9% in 2014. The outcome came as a surprise on the upside. Overall, we expect economic performance to remain solid throughout 2016 to 2018 even though growth will decelerate somewhat compared to the remarkable 2015 outcome. Domestic demand will be the main growth driver in all CESEE-6 countries over the entire projection period. Only in the Czech Republic is the contribution of domestic demand expected to slump in 2016 compared to 2015, largely in the wake of lower investment activity. We see some other beneficial factors for the CESEE-6 economies over our forecast period. For instance, Croatia and Hungary have implemented measures to promote SMEs. Also, procyclical fiscal policy measures in most CESEE-6 countries, taken partly to deliver on election pledges, as well as minimum wage hikes in Bulgaria and Romania are expected to boost private consumption.

Leading indicators generally show a positive picture, but some moderation has set in most recently. Retail trade was very strong at the end of 2015 in all CESEE-6 countries, but decreased somewhat at the beginning of 2016. Similarly, industrial production mounted steadily in 2015 and early 2016 but moderated thereafter. In most CESEE-6 countries, economic and consumer sentiment indicators reached their all-time post-crisis high in late 2015 or early 2016. Compared to the average capacity utilization rate in 2015, capacity utilization augmented further in all CESEE-6 countries in the first quarter of 2016, climbing to almost 80%. Only in the Czech Republic, the country with the highest degree of capacity utilization among the CESEE-6 countries, did the rate drop slightly in early 2016.

Tighter labor market adds to wage pressure

The robust economic development has had a powerful impact on labor market developments throughout the CESEE-6 region, with unemployment rates diminishing and employment rates increasing in all countries. More precisely, the CESEE-6 average unemployment rate declined by more than 1 percentage point to below 7% in January 2016 compared to the same period of 2015. All countries covered in our forecast except Croatia display unemployment rates below the EU-28 average.

The labor market has become much tighter in recent months, as shown for instance by increasing vacancy rates particularly in the Czech Republic and Romania. The favorable situation on the CESEE-6 labor markets adds to wage pressure. Higher minimum wages in some CESEE-6 countries further exacerbated the rise in nominal labor cost. In some countries, unit labor costs in manufacturing already accelerated in 2015 and could negatively affect price competitiveness in the

[4] *The oil price assumption used by the Bank of Finland is based on the Brent future price of March 9, 2016. We further assume that the current sanctions related to the Ukraine-Russia conflict will remain in place over the entire projection horizon.*

medium term if higher labor costs are not compensated by exchange rate movements.

Monetary policy stance remains supportive for growth

At the moment, prices are declining in most CESEE-6 countries. The deflationary or low inflation environment is certainly conducive to economic growth because it provides room for expansionary monetary policy and supports private consumption. We expect monetary policy to continue to be supportive for economic growth. The Czech National Bank (CNB), for instance, communicated that it will keep its exchange rate commitment at least until the beginning of 2017. Furthermore, Magyar Nemzeti Bank (MNB), the Hungarian central bank, announced measures to support lending activity and a further reduction of the banking tax. However, the advantage of accommodative monetary policy could be partly offset by the increase in the real debt burden of some highly leveraged economic sectors given corresponding rises in real interest rates and in real interest rate expectations.

Private consumption growth will gain speed in 2016 in all countries or will at least remain constant, like in Hungary. Romania and Poland are expected to show the strongest growth of private consumption in the CESEE-6 region on the back of fiscal measures. In both countries, however, private consumption growth will lessen over the projection horizon. Beyond fiscal measures, private consumption will certainly continue to benefit from higher purchasing power and declining unemployment rates in the CESEE-6 region, as in 2015. The contribution of public consumption will only be minimal in the CESEE-6 countries (between 0.1 and 0.3 percentage point over the projection period). In the Czech Republic and Poland, public consumption will add somewhat more to growth (between 0.4 and 0.6 percentage point) due to increasing public wages (Czech Republic) and substantially higher child benefits (Poland).

Investment activity to weaken in 2016

In 2014 and 2015, most CESEE-6 countries took advantage of the EU fund disbursements under the 2007–2013 multiannual financial frameworks. Therefore, gross fixed capital formation (GFCF) accelerated strongly over those two years. Largely because the EU funding overlap will end, we expect GFCF to weaken by almost 2 percentage points to 3.6% in 2016. In 2017 and 2018, increasing utilization rates within the new EU funding framework will lift GFCF growth to 5.0% by the end of the projection horizon. The Czech Republic is most affected by the ups and downs of utilizing EU structural and cohesion funds; GFCF growth will almost stall in 2016 after expanding rapidly by 7.5% in 2015. By contrast, GFCF growth will remain in negative territory in Bulgaria in 2016 before a modest recovery materializes in 2017 and 2018. Investment activity in Bulgaria is to a large part restrained by the debt-ridden corporate sector and a high ratio of nonperforming loans. Yet the deleveraging process of the corporate sector decelerated substantially at the end of 2015 and in early 2016.

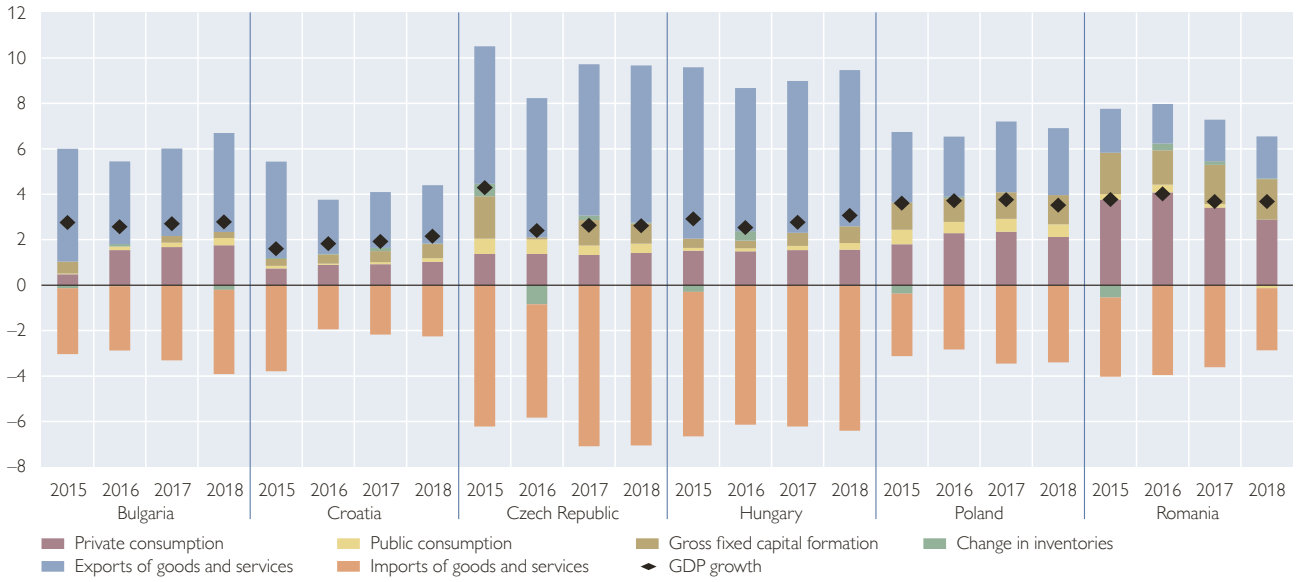
Export growth takes a dip in 2016

The outlook for euro area growth has weakened since our last forecast, in particular for 2016, implying a worsening of the external conditions for the CESEE-6 region. Predicted weaker external demand from the euro area, the main trading partner for the CESEE-6 countries, will have a negative impact. Thus, we expect export growth to dip marginally from 6.4% in 2015 to 5.7% in 2016. For 2017 and 2018, we see some rebound of export growth in accordance with the external assumptions. Turning to imports, we expect import growth to remain strong over the projection period, spurred by high domestic demand despite some weakening

Chart 1

GDP and GDP components: projections for 2016 to 2018

Percentage points, year-on-year GDP growth in %



Source: Eurostat, OeNB.

Note: Actual data for 2015; projections for 2016 to 2018.

of the CESEE-6 aggregate in 2016. In 2016, net exports will make a strongly negative contribution to GDP growth only in Romania. In the remaining CESEE-6 countries, the contribution of net exports will move around the zero mark, whereas it will reach more than 1 percentage point in the Czech Republic. We expect the contribution of net exports to continue to hover around zero in 2017 and 2018. In Romania the negative contribution will be more than cut in half by 2018.

Risks to growth continue to be tilted to the downside and have increased over the past months

As the CESEE-6 countries' economies are strongly interlinked with the euro area economies, we see a weaker than expected recovery of the euro area as one of the major downside risks to our forecast. Likewise, a further slowdown of global growth, inter alia in emerging market economies, as well as of global trade, would affect the CESEE-6 region adversely. A deterioration of the external environment would particularly beleaguer the most open CESEE-6 countries, namely the Czech Republic and Hungary. Moreover, turbulences in international financial markets have accelerated lately, adding to the uncertainties surrounding the prospects for the world economy. Rising oil prices and increasing wages could intensify upward pressure on the currently low or negative inflation in the CESEE-6 region over the projection horizon. Inflationary developments could eventually result in a less accommodative monetary policy stance in the CESEE-6 region; they could also erode domestic demand. We also see some downside risks to our forecast stemming from adverse political developments in several CESEE-6 countries[5] and from setbacks in the European integration process. Policy uncertainties and the rise in national sentiment could have adverse effects on business and consumer confi-

[5] *Highlighting political risks, the credit rating agency Standard & Poor's unexpectedly downgraded Poland's credit rating on January 15, 2016.*

dence. Geopolitical tensions between Ukraine and Russia or in the Middle East also imply downside risks for the CESEE-6 countries. A few upside risks are conceivable. A more robust recovery of the euro area poses an upside risk to our growth forecast. Also, a continuation of stronger than anticipated accommodative national monetary policies would be conducive to economic growth. A further upside risk stems from a (partial) lifting of sanctions against Russia.

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

Bulgaria: economy driven by exports and private consumption

In Bulgaria, economic growth almost doubled to 2.8% year on year in 2015, mainly driven by higher exports to EU partner countries in the last quarter. We expect that the predicted economic slowdown for the euro area in 2016 will have some impact on Bulgaria's GDP development, which will soften to 2.6% in 2016 before gradually increasing again to 2.8% in 2018. Reduced euro area import demand will dampen Bulgaria's previous positive export development. But we see exports recovering in 2017 and 2018 in line with stepped-up import demand from the euro area.

Over the forecast horizon, GDP growth will be dominated by private consumption on the grounds of decreasing unemployment rates (from 11.4% in 2014 to 9.4% in 2015), increasing employment rates, rising minimum wages (up from BGN 360 to BGN 420 per month effective from January 2016) and the recent positive evolution of consumer confidence. With private consumption picking up, imports will augment and thus reduce the positive contribution of net exports to GDP growth. We do not expect imports to grow faster than exports, so that the current account deficit will improve. The growth contribution of net exports should stay slightly positive over the whole forecasting period.

Turning to investments, we forecast a slightly negative contribution of this aggregate to GDP growth in 2016. Public investment will be significantly lower, as the 2007–2013 EU program period, under which projects were concentrated on 2013 to 2015, has ended. It will take some time before the projects under the new EU program (2014–2020) are implemented. Private investment will not be able to compensate for the lack of public investment, as investors are still reluctant, given the unsupportive business environment in Bulgaria. Furthermore, highly indebted businesses together with an ineffective insolvency regime constrain investments even more. However, in 2017 and 2018, public sector investment should pick up again and result in an increase in overall investment.

Croatia: possible switch to more sustainable growth

The Croatian economy has finally bounced back and has returned to positive territory, with GDP growth posting 1.6% in 2015, prompting a sizable upward revision compared to our October forecast. Although the modest pickup was broadly based, a stellar boost of external demand was the key driver of GDP growth.

The recovery in 2016 is projected to remain broadly based, with GDP growth reaching 1.8%, slowly accelerating to 1.9% in 2017 and coming to 2.2% in 2018. The recovery of private consumption is set to continue, albeit at a pace of 1.7% over the projection horizon, held back by lackluster credit growth and only a slow reduction of unemployment. On the upside, the conversion of Swiss franc loans might additionally stimulate the consumption of households. Public consumption, however, will still be constrained by consolidation efforts under the EU Excessive

Deficit Procedure. Consequently, according to the 2016 budget draft as presented on March 10, 2016, the general government deficit is to be brought down to 2.2% of GDP on the back of expenditure-led consolidation.

Public investment activity is projected to gradually accelerate, which is related to an enhanced absorption of funds under the new EU medium-term budget. Corporate fixed capital formation is projected to strengthen as well, not least due to a planned stimulus package for SMEs effective as from 2016. We expect the contribution of net real exports to gradually decline over the projection horizon but to remain positive overall. The temporary deterioration of the growth prospects of the external environment in 2016 might be partly offset by the opportunity to increase tourism exports in the light of geopolitical tensions in other major tourist regions. The pickup in investments depends heavily on the impact of austerity measures and the commitment of the new government to reforms, not least to implementing the privatization agenda.

Czech Republic: growth eases but remains solid

In the Czech Republic, GDP growth in 2015 amounted to a stellar 4.2% (in year-on-year terms) and was fueled by a strong absorption of EU funds. With the effects of EU cofunded investment fading, growth is forecast to be more modest over the next three years, amounting to 2.4% in 2016 and to 2.6% in 2017 and 2018.

Domestic demand remains the main driver of Czech real economic activity, even against the background of temporarily muted investment growth in 2016. For this year, investment growth is expected to stall, since the drawdown of EU funds in the new program period will start only gradually. With the absorption of EU funds gathering momentum, investment growth will accelerate, coming to 4.3% in 2017 and 3.4% in 2018. Government consumption is forecast to remain elevated in 2016 (3.2%) and to be more modest in 2017 and 2018 (2.1%). The higher support of government consumption for overall growth in 2016 is driven by a pronounced increase in the compensation of employees due to a rise in the public sector wage bill. Private consumption is projected to grow by about 3% over the forecast horizon, supported by comparatively low energy prices, easy monetary conditions and a tight labor market. Accelerating wage dynamics on the one hand and a gradual unwinding of the drop in import and oil prices on the other hand will drive up inflation and, in turn, short-term interest rates over the longer term.

The Czech National Bank (CNB) announced that it would not discontinue its exchange rate commitment to weaken the koruna before 2017. This should cushion a potential loss in external competitiveness brought about by a widening interest rate differential to the euro area and should bolster exports, which are expected to grow by about 7% to 8% over the forecast horizon. The high import content of investment in the Czech Republic will slow down imports and will drive up the contribution of net exports in 2016. Due to an investment-driven increase in imports, net exports are expected to be balanced over the longer forecast horizon.

Hungary: new policy measures help sustain solid economic expansion

After robust GDP growth in 2014 (3.6%), the expansion of Hungary's economy slowed to 2.9% in 2015; it was supported primarily by household consumption but also by net real exports. We expect a further temporary slowdown in growth to around 2.5% in 2016 due to the lower utilization of EU funds and the recent deterioration of external demand conditions. Consequently, we expect primarily investment activity to decelerate, mainly during the first half of 2016, as

the inflow of EU funds is likely to fall substantially before picking up again in the second half of the year. Similarly, the end of the central bank's Funding for Growth and Funding for Growth Plus loan schemes at end-2015 may point to some slowdown of economic activity in 2016.

At the same time, various factors should partially counteract these growth-reducing effects and support also a reacceleration of growth in 2017 and 2018 (to 2.8% and 3.1%, respectively):

Private consumption growth should benefit from additional expected employment gains and the 1-percentage-point cut in the personal income tax rate to 15% effective since the beginning of 2016. We expect an additional impetus from the conversion of almost all remaining foreign currency loans of households into local currency loans at the end of 2015. This conversion should further bolster households' financial position and should reduce the need for precautionary savings, although not nearly as strongly as in early 2015. Also, consumer confidence will continue to strengthen.

The central bank has announced a more active use of its nonstandard measures if needed to support lending activity. In addition to the Growth Supporting Programme and the Market Based Lending Scheme, the significant reduction in the bank tax from the beginning of 2016 and the planned further reduction in 2017 are also expected to contribute to the gradual easing of credit constraints in the economy. High capacity utilization rates in industry, healthy economic sentiment and improving export prospects in 2017 should also aid new investments. Households' investment activity is expected to receive a boost from the temporary reduction of VAT (from 27% to 5%) for newly built homes and the further substantial extension of housing subsidies and subsidized loan programs, particularly for young couples, from the start of 2016.

As in the previous forecast, we expect public consumption to grow only moderately in 2016 and 2017 in line with fiscal objectives. However, with elections approaching in 2018, we expect an election-related increase in public outlays from the second half of 2017 onward.

We expect the GDP growth contribution of net real exports to decline in 2016, given temporarily dimmer export prospects and the strong expansion of domestic demand (also including some restocking). The contribution should increase anew in 2017, backed by improving foreign demand, and remain stable in 2018.

Poland: higher social benefits support private consumption, foreign demand decelerates

In Poland, GDP growth will accelerate slightly to 3.7% in 2016 (from 3.6% in 2015), mainly as a result of stronger private consumption growth. By contrast, annual export growth will slow to 5.6%, in parallel to the weakening of foreign demand that will reflect, inter alia, lower euro area import growth. Still, exports will remain the single most important component of total final demand growth. Private consumption growth will accelerate to 3.9% as a result of the strong rise of households' real disposable income on the back of strong wage and employment growth, the large increase of child benefits in particular for lower-income households as of April 1, 2016, the persistent supply side-driven deflation, and the support (already agreed under the previous government) for distressed borrowers that tend to have lower income. Moreover, the current strongly positive consumer sentiment raises consumption propensity and may encourage demand for consumer loans. Public consumption will slow, given the partial wage freeze in the public sector.

Corporate fixed investment will expand at a lower rate, reflecting the weaker knock-on effects of exports, the rise of uncertainty about both foreign demand and domestic economic policy developments and somewhat more difficult external funding (the impact of the bank tax on loan supply, the new EU medium-term budget). Conversely, relatively high capacity utilization and favorable internal financing conditions support corporate fixed investment.

Housing investment will also expand at a slightly lower pace, as tighter supervisory regulations on housing loans entered into force on January 1, 2016, on top of more restrictive loan supply. But households' income growth and the state-subsidized housing program for young people remain supportive of housing investment.

Public investment will suffer from the only gradual absorption of funds under the new EU medium-term budget. Overall, we expect GFCF growth to slow to 4.8%. At the same time, inventory buildup will stabilize, so that its negative contribution to GDP growth will vanish. Weaker export and investment growth will prevent import growth from accelerating. However, as import growth will outpace export growth, the contribution of net exports to GDP growth will turn slightly negative.

In 2017, GDP growth will continue to accelerate slightly to 3.8%, as export growth will recover to 6.5% in line with stronger euro area and in particular German demand. Higher growth will, in turn, underpin corporate fixed investment growth. Total GFCF growth will additionally benefit from the higher absorption of EU funds and will rise to 5.4%. At the same time, private consumption growth will remain strong and will even accelerate somewhat, as the full impact of higher child benefits and larger general tax allowances will play out, while deflation should be overcome by early 2017. Both higher export growth and stronger domestic demand will push up import growth to 7.4%, and the contribution of net exports to GDP growth will remain slightly negative over the projection horizon.

Romania: domestic demand drives growth, but some rebalancing likely from 2017

We expect that after coming to 3.8% in 2015, economic growth in Romania will accelerate to 4% in 2016 before leveling off at 3.7% in 2017 and 2018. GDP growth will be driven largely by domestic demand, particularly by private consumption. Yet, starting from a high level, the contribution of domestic demand will gradually decrease over the forecast horizon, as the impact of supportive fiscal and wage policy measures will abate. In turn, the negative contribution of net exports will also diminish somewhat, as import growth will decline alongside domestic demand, while export growth will likely remain moderate.

Private consumption will be boosted by the carryover effects of measures taken in 2015 (in particular the cut of the VAT rate for food products in June 2015, the hike of the minimum wage in July, the 25% health sector wage increase taking effect from October 2015), measures taken or planned in 2016 (cut of the standard VAT rate by 4 percentage points to 20% from January 2016 and a further minimum wage hike from May 2016) and their positive impact on real disposable income. Private consumption will also be supported by positive tendencies on the labor market and by the expansion of leu-denominated consumer loans.

We expect that after picking up in 2015, GFCF growth will remain robust, supported by the improved lending capacities of banks (cleanup of bank balance sheets) and low credit costs. A downside risk emerges from the giving-in-payment law, which could increase uncertainty over economic policymaking, negatively

impact investor confidence and dampen credit growth in general. Nevertheless, public investment growth is likely to slow in 2016, as EU fund absorption is likely to drop temporarily (new EU fiscal framework). With increasing fund utilization within the new framework, annual GFCF growth will rise again from 2017.

Romanian export growth will benefit from accelerating euro area import growth. Yet, unit labor costs in the manufacturing sector will continue to rise, given the further minimum wage hike, and are likely to prevent export growth from accelerating markedly.

3 Russia: shrinking economy in 2016, slow recovery after 2017

Induced by an oil price plunge in the second half of 2014, the Russian economy shrank by 3.7% in 2015, and we expect Russia's GDP to dip further in 2016 on the back of a renewed oil price slump in the second half of 2015. We then expect oil prices to stabilize and to recover slightly, contributing to a turnaround of the Russian economy in 2017 and a weak recovery in 2018.

During the forecast period (2016 to 2018), world economic growth and trade will improve somewhat. Western sanctions, Russian countersanctions and uncertainties are assumed to stay unchanged, while the oil price remains the overwhelming determinant of the forecast. The previous forecast (of September 2015) had already predicted that the large oil price fall in the second half of 2014 would continue to depress the economy as late as in 2016. As a second blow, the oil price (Brent) declined further in the second half of 2015 to reach a (provisional) low of around USD 30 per barrel in early 2016; we now assume that it will recover only gradually and will attain an average of USD 40.6 per barrel in 2016, i.e. notably lower (–23%) than the annual average of 2015. The average oil price is expected to continue to rise moderately to USD 49 in 2018. GDP is therefore projected to shrink by about 3% in 2016 and to remain unchanged in 2017. In 2018, the economy will revive, though only slowly (+1%), as uncertainties relating to the economy and systemic developments will limit Russia's long-term growth to a slow tempo.

The low oil price will also continue to reduce Russia's export earnings in 2016. Together with the shrinking economy, these low export earnings will induce a further downward adjustment of Russia's imports. Imports may drop by one-tenth of their 2015 volume in 2016, and the meager GDP forecast for 2017 may entail stagnant imports.

Domestic demand in Russia is expected to shrink further, dropping quite significantly in 2016. Inflation is forecast to remain high in 2016 (at about 8% for the annual average of consumer prices), which will further erode the purchasing power of the private and public sectors. At the same time, corporate profitability and prospects of private sector wage increases are expected to be modest. Restraints on and freezes of public sector wage increases will continue, and the inflation indexation of pensions has been lowered (partly to 4% and partly to zero). Based on current decisions, government expenditures will also decrease in real terms, thus taking a bite out of public consumption and investments. In addition, Russia's leadership is planning to scale down expenditures further, as the low oil price is hitting government revenues quite drastically. Investments are anticipated to shrink further, as there is free capacity, and investment conditions are uncertain. Inventories are likely to decrease further. The volume of exports will be con-

strained among other things by the oil sector, where exports will at best grow much more moderately than in 2015.

Risks to the forecast for Russia remain large but are rather balanced now. Deviations of the oil price from the track envisaged would naturally have an impact on the ruble, inflation, domestic demand, imports, and, of course, economic growth. Geopolitical tensions may ease or intensify. There is an ever-present risk of other events that could induce increased capital flows from Russia and exert downward pressure on the ruble and on imports. Despite the declared aims of restraining and cutting expenditure, increases in government spending may materialize, as State Duma elections (in September 2016) and presidential elections (in March 2018) are approaching. Such spending would provide only a relatively short-lived boost to the economy, though, and could entail even stronger fiscal adjustment later. A notable upside risk stems from a possible halt to, or reversal of, last year's large shift to precautionary saving by households, as it would considerably improve the prospects for private consumption and imports already in 2016. Another upside risk is that the Bank of Russia could cautiously resume cutting interest rates if inflation declined more quickly than currently expected, which would have a favorable impact on banking activity.

Studies

The influence of sovereign bond yields on bank lending rates: the pass-through in Europe

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In the wake of the recent crises, the question arose how to ensure the transmission of monetary policy to the lending rates for loans to private nonbanks, in particular against the background of divergent government bond yield changes. This paper investigates which variables help explain changes of long-term fixed-rate bank lending rates on loans to the private nonfinancial sector in 21 EU countries. We conduct a cross-country panel study and analyze vector error correction models for each country. We find that long-term sovereign bond yields have a significant positive and economically substantial impact on long-term lending rates in most euro area and some non-euro area countries. Our findings lend support to the view that unconventional monetary policy can influence long-term lending rates via its impact on government bond yields. Furthermore, our insights suggest adopting a cautious approach when designing changes to the regulatory treatment of sovereign exposures. To the extent that such changes cause a sustained widening of sovereign yield spreads, the impact on long-term lending rates could entrench real economic divergences between EU countries and in particular within the euro area.

JEL classification: C32, C33, E43, E52, G21
Keywords: sovereign debt crisis, sovereign spread, sovereign credit risk, sovereign yield, government bond yield, bank interest rates, bank lending, lending conditions, long-term financing, bank funding, transmission, interest rate pass-through

In recent years, the sovereign debt crisis in some European countries has had a profound impact on these countries' real economy, causing divergences within the region in general and within the euro area in particular. An important feature of the sovereign debt crisis was the sudden change of market participants' perception of risk in individual EU Member States, which led to sharply rising government bond yields and sovereign risk premia. This altered risk perception sharply reversed the convergence of yields to a very low level that had taken place in the run-up to and the initial years of the euro area.

At the same time, rates on loans to private nonbanks increasingly diverged within the region. To the extent that the rise of sovereign bond yields in some countries has contributed to the increase of lending rates, sovereign debt problems had an impact on the real economy via a channel in addition to those through which fiscal austerity affects real income.

More generally, the question arises to what extent investors and banks differentiate between the sovereign credit risk and the credit risk of private nonbanks of the same country. In other words, does a rise in government bond yields increase the rate on loans to private nonbanks in the same country? Why should we actually expect a change in government bond yields to have an impact on lending rates for loans to private nonbanks?

Traditionally, determinants of lending rates are discussed primarily within the context of the monetary transmission mechanism, focusing on the impact of changes in the key policy rate on money market rates and, hence, on lending rates. However, as suggested by empirical evidence for euro area countries in de Bondt

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(2005) or von Borstel et al. (2016) one may expect the impact of monetary policy on lending rates to be considerably weaker for long-term lending rates (that is, lending rates with a long-term interest rate fixation) than for short-term lending rates. By contrast, sovereign bond yields probably have a greater impact on long-term lending rates than on short-term lending rates.

Under this perspective, investigating the impact of sovereign bond yields on long-term fixed lending rates (on new lending and, with a time lag, on the outstanding stock of loans) aims, inter alia, at improving the understanding of potential shortcomings of the monetary transmission mechanism that arise when policymakers rely exclusively on conventional monetary policy using short-term interest rates.

Within the literature on the monetary transmission mechanism (see Beckmann et al., 2013), in addition to the traditional "monetary policy approach," a "cost-of-funds approach" strand has developed to analyze such shortcomings. The term "cost of funds" does not relate primarily to the funding side of the banks, but rather to the maturity-conforming market rate as the opportunity cost of the bank lending rate, that is, the cost of the best foregone investment alternative. Under the cost-of-funds approach, usually a corresponding market rate is chosen according to the highest correlation with the bank retail rate under study (see Sander and Kleimeier, 2004), that is, long-term government bond yields or long-term interest rate swaps are chosen for long-term fixed bank lending rates (e.g. van Leuvensteijn et al., 2013). In practical terms, banks take long-term government bond yields as reference benchmarks for their fixed rates on long-term lending to private nonbanks. In this view, one would expect that sovereign bond yields influence long-term fixed lending rates also "in normal times" – not only in times of sovereign debt problems.

However, in times in which sovereign debt is under severe stress, on the one hand, it may well be that the price-setting behavior of banks changes so that the impact of a rise in the sovereign yield on the lending rate becomes weaker. For instance, banks may not want to raise lending rates above a certain level so as to avoid exposure to riskier borrowers (adverse selection) or to discourage firms from taking excessive risk (moral hazard); see the seminal work by Stiglitz and Weiss (1981). Also, banks may consider some yield movements a temporary phenomenon and may thus be reluctant to follow them as quickly as usual in their price setting.

On the other hand, in times in which sovereign debt is under severe stress, government bond yields may influence lending rates via two additional channels, namely by inducing higher risk premia and by raising banks' funding costs:

First, a strong increase in sovereign risk associated with fears of sovereign default would have an impact on the banking sector in view of the risk of sharply deteriorating general economic conditions (see Bahaj, 2014). If the sovereign of an EU Member State were to default, the economy would fall into a major recession (given the strong role of government in the EU economies) and claims on the productive sector would pay out little. Therefore, banks are likely to raise the premia on lending to firms and households when the probability of sovereign default rises (see Bocola, 2014). Again, however, the upper bound on rates and banks' delayed reaction may restrain the impact of the prospect of sovereign default on risk premia.

Second, a strong increase in sovereign risk can raise the funding costs of banks and thus lead to higher lending rates (if margins are preserved) and lower credit volumes (if credit demand is elastic). There are at least three different ways in which the increase in sovereign risk can affect the refinancing side of banks, in particular of large, systemically important banks of the respective country (see Albertazzi et al., 2014; Bank for International Settlements, 2011; Bocola, 2014; Cantero-Saiz et al., 2014): (1) through the deterioration of (the risk outlook for) banks' assets, including claims on private nonbanks; (2) through the reduction of collateral value, affecting primarily the short-term refinancing of banks; (3) through the correlation between sovereign ratings and bank ratings, as the sovereign rating typically serves as a ceiling and/or because of the presence of explicit or (assumed) implicit state guarantees for (large) banks (see Correa et al., 2014). However, one may doubt that such adverse implications for bank funding (and hence lending rates) of strong increases of government bond yields in times of severely distressed sovereign debt will comprehensively materialize, provided the monetary authorities supply ample liquidity, including in the long-term segment.

Moreover, monetary policy responses may contain the increase of sovereign yields in the first place or may even result in yield declines, which, ceteris paribus, could show up in lower lending rates. More broadly, monetary policy, including unconventional measures, may play a role in determining bank lending rates through the impact on (1) money market liquidity, (2) deposit rates for primary funding and (3) sovereign bond yields. Von Borstel et al. (2016) show that during the sovereign debt crisis in some euro area countries from 2010 to 2013, expansionary monetary policy reduced sovereign risk in peripheral euro area countries and longer-term bank funding risk in both peripheral and core countries, but was not effective in lowering spreads between lending rates and banks' funding costs (Illes et al., 2015, confirm the latter).

In fact, government bond yields are influenced not only by (unconventional) monetary policy, but also by several other factors, including (the outlook for) fiscal policy, international risk aversion, regulatory measures, and the business cycle (see e.g. Maltritz and Molchanov, 2013; Heinz and Sun, 2014).

We note that among the literature on the existing empirical evidence, so far only a few studies have estimated the direct impact of government bond yields on lending rates in Europe. While some of these papers focus on Italian banks only (Albertazzi et al., 2014; Zoli, 2013; Bocola, 2014), there are a few cross-country papers for selected euro area countries (Neri, 2013; Neri and Ropele, 2015; Hristov et al., 2014). The European Central Bank (2013) addressed the issue whether an inclusion of a sovereign risk indicator improved the modeling of the interest rate pass-through of monetary policy decisions in the euro area.

Albertazzi et al. (2014) aim at explaining bank deposit and lending rates by modeling a sovereign risk variable, a monetary policy variable and an economic activity variable, plus lags of the dependent variable, in an autoregressive distributed lags (ARDL) model estimated with ordinary least squares (OLS). They find that the sovereign risk variable significantly affects the cost of credit for firms and households (and exerts a negative effect on loan growth). Zoli (2013) estimates a vector autoregression (VAR) with the bank lending rates on loans to firms the ten-year government bond spread and the average credit default swap (CDS) spread of the five largest Italian banks (as a proxy for bank risk and bank funding costs) as

endogenous variables (all in first differences); changes in the three-month EURIBOR are included as an exogenous variable. She finds that the movements in sovereign spreads affect the CDS spreads and are transmitted rapidly to firm lending rates (about 30% to 40% of the increase in sovereign spreads are transmitted to firm lending rates within three months). Bocola (2014) uses a real business cycle model with financial intermediation and the sovereign exposure of banks, taking five-year CDS spreads on Italian government securities as the sovereign risk variable. He finds that the rise in the probability of a sovereign default leads to a rise in the financing premia of firms.

Turning to multicountry studies, Neri (2013) investigates a sample of ten euro area countries in the period January 2003 to August 2012. He aims at explaining the impact of sovereign debt tensions on short-term bank lending rates for new loans (excluding overdrafts) to nonfinancial corporations and to households (for residential mortgages). The explanatory variables are a sovereign risk variable (the ten-year government bond spread), a monetary policy variable (the EONIA rate), a money market credit risk variable (the spread between the three-month EURIBOR and EONIA), a confidence indicator, plus lags of the dependent variable. Neri uses individual country ARDL models estimated with seemingly unrelated regression (SUR). He finds that sovereign debt tensions have had a significant impact on lending rates in the peripheral, but not in the core euro area countries. Neri and Ropele (2015) investigate a sample of 11 euro area countries in the shorter period from January 2007 to December 2012 using a FAVAR (factor-augmented VAR) model. By means of principal component analysis (PCA), they extract common factors from a large set of macroeconomic series, capturing co-movements between country-specific and euro area-wide series. Next, they estimate individual country VAR models using Bayesian methods, with the orthogonalized common factors, a sovereign risk variable (the Greek government bond spread) and a monetary policy variable as endogenous factors and world demand as an exogenous variable. Then, they apply Cholesky ordering, taking first, the latent factors, second, the sovereign risk variable, and finally, the monetary policy rate. They find that credit market conditions for nonfinancial firms and households deteriorate in all peripheral countries in response to a sovereign risk shock. That is, the costs for new loans increase and credit volumes decline, thereafter weighing on economic activity and unemployment in these countries and propagating with some delay through trade and confidence channels to the core economies of the euro area.

Related literature analyzes the impact of sovereign risk on lending volumes (Cantero-Saiz et al., 2014; Popov and van Horen, 2013). Cantero-Saiz et al. conduct a microeconometric study for a sample of 3,125 banks in 12 euro area countries between 1999 and 2012. They use macro variables (the nominal GDP growth rate, the short-term money market rate, government bond yield spreads, the interaction between sovereign risk and the monetary policy rate) and bank-specific characteristics (size, liquidity, capitalization, loan loss provisions), plus lags of the dependent variable to explain bank-level loan supply growth. For this purpose, they build a dynamic panel estimated using two-step system GMM (general method of moments). They find that sovereign risk plays an important role in determining banks' loan supply during monetary policy contractions, in particular in countries with higher sovereign risk premia.

Other related literature addresses the impact of sovereign risk on bank funding costs (Babihuga and Spaltro, 2014; Bank for International Settlements, 2011). The latter paper looks at the factors explaining the spread between fixed-rate bank bond yields at issuance and the swap rate of a similar maturity of 116 banks in 14 advanced economies in 2006 and 2010. It takes sovereign risk (rating, CDS spread), bond characteristics (issue size, maturity, currency, rating), issuer characteristics (rating, CDS spread, size) and market conditions as explanatory variables in a cross-section OLS regression. Its main result is that in 2010, a large part of the spread at bank bond issuance (on average 30%, or 120 basis points) reflected the risk of the sovereign, while in 2006, when investors did not perceive significant risks for either banks or sovereigns, sovereign risk had virtually no effect on the cost of bank funding. Babihuga and Spaltro (2014) look at the marginal funding costs (defined as three-month LIBOR plus the five-year CDS premium) of 52 banks in 14 advanced economies in the period 2001 to 2012. They build a panel ECM (error correction model) and find that an increase in euro area sovereign risk (proxied by a weighted index of sovereign spreads of peripheral euro area countries) is associated with higher bank funding costs.

Against this background, the present paper is to our knowledge the first to systematically investigate the direct impact of long-term government bond yields on *long-term* bank lending rates for new loans to the private nonfinancial sector. It also adds to the literature in that it broadens the sample in particular by covering those EU Member States in Central, Eastern and Southeastern Europe (CESEE) for which sufficient data are available. We combine fixed-effect panel estimates for a larger set of these countries with individual country estimates. At the individual country level, we use VEC (vector error correction) or in some cases VAR models, and for the group estimate, we use an ECM combined with DOLS (dynamic OLS) estimation. There are at least three reasons to start with the panel estimate and not to limit the study to the country-level approach: First, for institutional and political reasons, we wish to have results for the EU, in particular the euro area as a whole. Second, the panel allows us to split the sample into subperiods, which we could not do otherwise because the time series are too short. This gives our paper the additional benefit of distinguishing between two sample periods – a subperiod up to the Great Recession and a subperiod thereafter up to end-2014. Third, in several of the ensuing country models, required normalization for identification constrains the set of explanatory variables in the long-run relationship.

Our main hypotheses are: First, sovereign bond yields have a nonnegligible influence on banks' long-term fixed lending rates on loans to the private sector. (In turn, various factors may determine sovereign bond yields, such as fiscal shocks or unconventional monetary policy.) Second, government bond yields are expected to have at least as much influence on banks' long-term lending rates as the short-term money market rate, and, third, this influence can be identified not only in peripheral euro area economies, but also in the core euro area economies. Fourth, importantly, all these effects are not just a crisis-related phenomenon, but are also present during "normal" times.

This paper is structured as follows: Section 1 describes the variables used in this study, their precise definitions and the length of time series. Section 2 presents the empirical framework, describing the methodological approach and the econometric models that we have implemented. Section 3 provides the results of

the estimations of our main models and includes some references to the robustness checks applied. Section 4 contains our conclusions.

1 Data

The EU (ECB/ESCB) provides harmonized interest rate statistics (known as MIR statistics), which contain monthly data on monetary financial institutions' loans to private nonbanks and deposits accepted from private nonbanks in each EU country. These statistics cover monthly data on new business in lending and deposit-taking by sectors, i.e. households and individual enterprises as well as non-financial corporations, with the respective national currency being the transaction currency.

For each sector, the new business is distinguished by purpose. Hence, on the deposit side, deposits with an agreed maturity form one major category in each sector. On the lending side, loans other than bank overdrafts are split into consumer credit, loans for house purchases and loans for other purposes in the household sector, whereas they are differentiated by size in the corporate sector.

Moreover, the statistics provide a segmentation by maturity, with the longest maturity being "over 2 years" on the deposit side and "over 5 years" on the lending side.[2] Importantly, in this context, maturity refers not only to the duration of the deposit or loan contract (up to the final repayment), but to the duration of interest rate fixation.

According to our focus on the long-term segment, we constructed time series of the weighted-average annualized agreed deposit rate (in percent) for deposits with a maturity of over two years accepted from private nonbanks (long-term deposit rate, y2depr) and of the weighted-average annualized agreed loan rate (in percent) for loans with a maturity of over five years extended to private nonbanks (long-term lending rate, y5loanr). Here, we used the fact that not only new business prices, but also new business volumes are available.

In volume terms, the share of thus defined long-term deposits in overall deposits with an agreed maturity newly accepted from private nonbanks in 2014 ranged from about 1% in Poland and Sweden to 21% in France, with the euro area average coming to 6.5%. The share of thus defined long-term loans in overall loans (other than bank overdrafts) newly extended to private nonbanks in 2014 ranged from about 1% in Romania and Sweden to 45% in France, with the euro area average standing at 18%.

Obviously, the so constructed long-term lending rate on loans to private nonbanks forms our main variable of interest. The deposit rate for deposits with a maturity of over two years accepted from private nonbanks is one of the explanatory variables.

Basically, these interest rate statistics start with January 2003. However, this does not apply to all current EU countries. Continuous time series for long-term lending and deposit rates vis-à-vis private nonbanks from January 2003 to December 2014 are available for a set of 12 countries, ten of which are currently in the euro area: Germany (DE), France (FR), Austria (AT), the Netherlands (NL), Belgium (BE), Finland (FI), Ireland (IE), Italy (IT), Spain (ES), Portugal

[2] *To be precise, in the case of loans for house purchases by households, this maturity is given in two parts, as "over 5 years and up to 10 years" and "over 10 years."*

(PT), Denmark (DK) and Hungary (HU). For Luxembourg (LU), the time series start in January 2003, but a few monthly data points are missing. For another eight countries, including three current euro area countries, the time series start later but before January 2007, namely Slovenia (SI, May 2005), Slovakia (SK, January 2004), Lithuania (LT, October 2004), Sweden (SE, August 2005), Great Britain (GB, January 2004), the Czech Republic (CZ, January 2004), Poland (PL, January 2005) and Romania (RO, January 2007). Some monthly data are missing in four countries (SI, LT, PL, RO); we substituted the few missing monthly data points by linear interpolation. Sufficiently detailed data were not available for Greece, Cyprus, Malta, Estonia, Latvia, Bulgaria and Croatia. Therefore, our empirical analysis focuses on a total of 21 EU countries.[3]

In addition to the long-term deposit rate, we include the one-month interbank rate (m1ibk) as a proxy for the impact of monetary policy measures (both conventional and unconventional) on money market liquidity at the short end[4] and the ten-year local-currency government bond yield (y10gov) in our basic model. Not only is the maturity of ten years a relatively liquid market segment in general, but it could also match the assumed average of loan maturities "over 5 years" quite well.

Further variables we include for robustness checks are year-on-year inflation rates (Harmonised Index of Consumer Prices – HIPC), and year-on-year growth rates of (seasonal and working-day adjusted) industrial production as a proxy for real activity, which enables us to control for the effects of loan demand as a factor determining the lending rate.

Annex 1 provides charts allowing a visual inspection of long-term lending rates, long-term deposit rates and ten-year government bond yields. In most countries, the ten-year sovereign bond yield and the long-term lending rate on loans to private nonbanks seem to exhibit quite a pronounced parallel movement, which in several cases (e.g. the Netherlands or Italy) seems to have become weaker during the most recent years of the period. In some countries, like Ireland, Spain, Portugal and Slovenia, a rather loose initial parallel movement became blurred, partly abruptly disturbed and later, after 2010, restored. By contrast, in a few countries, like in Slovakia, the Czech Republic and Poland, but to a lesser extent also in Great Britain, there seems to be no correlation or only a very weak link between these two time series during the whole time span.

[3] *Throughout this study, countries are listed in the following order: euro area countries that did not have severe sovereign debt problems in 2010/2011; other euro area countries; non-euro area countries that became EU members before 2004; non-euro area countries that joined the EU after 2004.*

[4] *While the choice of the one-month rate incurs some risk premium (generally small) compared to the overnight rate, it tends to be less volatile (on a daily basis). Hence, it is a more stable representative measure of money market liquidity. Besides, most central banks' standard money market operations have a maturity of one or two weeks. More importantly, the difference between the two rates appears to be of secondary importance in relation to our research question to what relative extent long-term bank lending rates are influenced by the price of short-term money market liquidity, long-term deposit rates or long-term government bond yields.*

2 Empirical framework: methodological approach and econometric models

2.1 Panel error correction model

In a first step, we estimate panel models with country fixed effects, focusing on ECMs for the long-term lending rate (LR) as the dependent variable. In the basic variant, we use the long-term deposit rate (DR), the one-month interbank money market rate (MR) and the ten-year government bond yield (GY) as explanatory variables.

We start by building a large panel that includes all 21 EU countries for which sufficiently detailed data are available (see section 2). This large panel (panel 21) is unbalanced, as time series start later than January 2003 for several countries. Next, we build a balanced panel by including all countries with continuous time series starting in January 2003. The panel covers most euro area countries plus Denmark, and we expect these countries to be structurally more similar and thus more suitable for rendering a homogeneous panel.

For both panels, we apply the Pedroni panel cointegration test (with individual intercepts) to find out whether or not any cointegration relationship exists between these variables at all. The Pedroni panel cointegration test is an Engle-Granger-based residual test of the null hypothesis of no cointegration (unit root in the residuals), against the alternative hypothesis with common autoregressive coefficients (within dimension) or individual autoregressive coefficients (between dimension, see group statistics in table 1 on results further below). Pedroni (1999) provides seven statistics for evaluation, i.e., four within-dimension and three between-dimension statistics. We focus on the Augmented Dickey-Fuller (ADF) statistics (both within dimension and between dimension) for two reasons: First, Canning and Pedroni (2004) in a methodologically similar study opt for the same type of statistics. Second, Hlouskova and Wagner (2007) conclude in a comprehensive simulation study on the performance of panel cointegration methods that these statistics show a superior performance, in particular in the case of a relatively short cross section-specific length of time series (T). Additionally, we take into account the other Pedroni test statistics.[5]

In a next step, the relationship between the nonstationary variables found to be cointegrated according to the Pedroni panel cointegration test is recovered by regression equation (1). For this purpose, we perform a dynamic OLS (DOLS) estimate to be on the safe side. Theoretically, a rise in the bank lending rate on new loans to the private nonfinancial sector could lead to (or feed back into) an increase of the government bond yield, as the higher long-term lending rate could weaken the economy and thus cause the fiscal balance to deteriorate, which could in turn result in higher yields on sovereign bonds. One may doubt that this channel works relatively quickly and straightforwardly. Still, the DOLS estimation proposed by Stock and Watson (1993) takes account of such possible endogeneity (reversed causality) among the variables in the form of a simultaneity bias by including both lags and leads of the first differences of the explanatory variables.

[5] *As a caveat, one may caution that more recent modifications of panel cointegration tests take account of the cross-sectional dependence of the errors in the panel model. See Persyn and Westerlund (2008) as well as Banerjee and Carron-I-Silvestre (2015).*

$$LR_{it} = c_i + \beta_1 DR_{it} + \beta_2 MR_{it} + \beta_3 GY_{it} + \\ + \sum_{k=0}^{kopt} \eta_{1,k} dDR_{it+k} + \sum_{j=1}^{jopt} \theta_{1,j} dDR_{it-j} + \sum_{k=0}^{kopt} \eta_{2,k} dMR_{it+k} + \\ + \sum_{j=1}^{jopt} \theta_{2,j} dMR_{it-j} + \sum_{k=0}^{kopt} \eta_{3,k} dGY_{it+k} + \sum_{j=1}^{jopt} \theta_{3,j} dGY_{it-j} + e_{it} \quad (1)$$

with $e_{it} \sim i.i.d.(0,\Omega)$, whereby Ω is not necessarily diagonal, and LR for long-term lending rate, DR for long-term deposit rate, MR for short-term money market rate, GY for ten-year government bond yield, and i for the cross-section (country), kopt and jopt for the optimal number of leads and lags, respectively, as chosen by minimizing the Akaike information criterion (AIC).

We include country-specific fixed effects (c_i) in the panel DOLS estimate. To control for heteroscedasticity across the panel, we performed standard error corrections (across cross-sections, across the time dimension and both across cross-sections and time) to derive White-consistent t-statistics. We report the p-values after heteroscedasticity corrections based on White diagonal (time and cross-sectional) standard errors in the table of results. The residuals of this estimate are recovered to form the ECT (error correction term) of the ECM.

Next, we build the ECM for the long-term bank lending rate according to equation (2) by taking all variables in first differences. We include the lagged ECT that was derived from the initial DOLS regression as level-related information. Again, we determine the numbers of leads and lags of the differenced terms by using the Akaike criterion. Finally, the estimated long-run relation (beta vector) and the corresponding adjustment coefficient (alpha) are evaluated.

$$dLR_{it} = \alpha ECT_{it-1} + \\ + \sum_{k=0}^{kopt} \delta_{1,k} dDR_{it+k} + \sum_{j=1}^{jopt} \varphi_{1,j} dDR_{it-j} + \sum_{k=0}^{kopt} \delta_{2,k} dMR_{it+k} + \\ + \sum_{j=1}^{jopt} \varphi_{2,j} dMR_{it-j} + \sum_{k=0}^{kopt} \delta_{3,k} dGY_{it+k} + \sum_{j=1}^{jopt} \varphi_{3,j} dGY_{it-j} + e_{it} \quad (2)$$

For performing robustness checks, we enhance this basic variant of the panel ECM by adding euro area inflation and, alternatively, euro area industrial production, and then adding both variables as common control variables. In line with Neri and Ropele (2015), this should allow us to account – at least to some extent – for potential spillovers and the co-movement of variables across the included countries.[6] Moreover, we re-estimate all these panels, including lags of the dependent variable as an additional explanatory variable to account for possible inertia of the time series, with the number of lags again determined by the Akaike criterion.

Further, we re-estimate all these models by replacing the common adjustment coefficient by cross-sectional specific adjustment coefficients. As a post-estimation poolability test, we apply a Wald test on these estimated coefficients. Hence, this

[6] *"Sovereign tensions in one country may spill over to banks in other countries, either through banks' direct exposures to the distressed foreign sovereign, or indirectly, as a result of cross-border interbank exposures or possible contagion across sovereign debt markets." (Bank for International Settlements, 2011, p. 2).*

Wald test is an F-test of the null hypothesis of a homogeneous adjustment parameter across countries.

The panel approach provides the additional advantage that we can evaluate not only the full time period (from January 2003 to December 2014), but also a shorter time period that cannot be evaluated in country-level VECMs (given a considerably smaller number of observations and thus a smaller degree of freedom). In particular, we split the full period into two parts: the first subperiod up to August 2008, that is, the period before the start of the Great Recession, and the post-Lehman subperiod up to end-2014. Interacting the level variables with the two dummies for the first and the second subperiod, respectively, we re-estimate the long-run relationships of these models (following an approach similar to that of Albertazzi et al., 2014). This dummy approach allows us to apply a Wald test to check whether the size of the long-run coefficient, in particular of the government bond yield, is statistically different when we compare these two subperiods.

2.2 Individual country models

As a second step, we estimate models at the individual country level. For each country, we aim at estimating a vector error correction model (VECM) that includes the long-term lending rate (LR), the long-term deposit rate (DR), the 1-month interbank money market rate (MR) and the 10-year government bond yield (GY). To select the appropriate lag length, the log-likelihood ratio (LLR) test statistic, the Akaike information criterion (AIC) and the Schwarz information criterion (SIC) are evaluated. Next, the Johansen cointegration test is applied to find out whether or not any cointegration relationship exists between these variables at all – and if so, how many cointegration relations.

If at least one long-run equilibrium relation is present, we proceed to estimate the VECM (here represented as an example with three lags):

$$\Delta Y_t = \delta_0 + \Gamma_1 \Delta Y_{t-1} + \Gamma_2 \Delta Y_{t-2} + (\Pi Y_{t-1}) + \varepsilon_t \qquad (3)$$

where:

$$Y_t = (LR_t, DR_t, MR_t, GY_t)'$$
$$\varepsilon_t = (\varepsilon_{LR,t}, \varepsilon_{DR,t}, \varepsilon_{MR,t}, \varepsilon_{GY,t})'$$
$$\Pi = -(I_4 - \Theta_1 - \Theta_2 - \Theta_3) = \alpha\beta'$$

With Π as the "long-run matrix" of dimension 4 x 4, equal to the product of the "adjustment matrix" alpha (4 x r) and the "matrix of cointegration relationships" beta transposed (r x 4), with r as the number of cointegrating relationships.

After some diagnostic checks (in particular of the autocorrelation of residuals), the estimated long-run relation (beta vector) and the corresponding adjustment coefficients (alpha vector) in the long-term lending rate equation and the government bond yield equation are evaluated.

For countries where we find that there is no long-run equilibrium relation between those four variables, we proceed to estimate the corresponding vector autoregression (VAR) model in levels and in first differences.

$$Y_t = \delta_0 + \Theta_1 Y_{t-1} + \Theta_2 Y_{t-2} + \Theta_3 Y_{t-3} + \varepsilon_t \quad (4a)$$

$$\Delta Y_t = \delta_0 + \Theta_1 \Delta Y_{t-1} + \Theta_2 \Delta Y_{t-2} + \Theta_3 \Delta Y_{t-3} + \varepsilon_t \quad (4b)$$

where:

$$Y_t = (LR_t, DR_t, MR_t, GY_t)'$$
$$\varepsilon_t = (\varepsilon_{LR,t}, \varepsilon_{DR,t}, \varepsilon_{MR,t}, \varepsilon_{GY,t})'$$

Relying on post-estimation diagnostic checks, including in particular tests on the stability of this system, we decide whether to use the VAR in levels or in first differences. We note that the VAR in first differences is equal to the VECM with Π equal to zero. Based on the chosen VAR model, the impact of a shock to the government bond yield on the long-term lending rate is analyzed by means of impulse response functions (IRFs) based on Cholesky ordering by taking first, the bond yield, second, the monetary policy rate, third, the long-term deposit rate and finally, the long-term lending rate. Assigning first place to the long-term bond yield reflects, inter alia, the view that yields often react to changes in inflation expectations no later than monetary policy decisions (reflected in the short-term interbank rate). In addition, we perform a cross-check of the Cholesky-ordered IRFs by means of generalized IRFs (GIRFs). For all these VAR-based IRFs, we establish bootstrapped confidence bands.

For performing robustness checks, we enhance these basic VEC and VAR models by adding inflation and then adding both inflation and industrial production as control variables.

3 Results

3.1 Panel error correction model

In this subsection, we present the results of the FE (fixed-effects) panel ECM estimates. While our large, unbalanced panel contains 21 EU countries, our smaller, balanced panel includes ten countries, namely Germany, France, Austria, the Netherlands, Belgium, Finland, Ireland, Italy, Portugal and Denmark.

The panel cointegration test clearly establishes a significant cointegration relationship for both panel samples on the basis of the ADF statistics (table 1), which are the most relevant ones in the given context of a relatively short cross section-specific length of time series. Moreover, the existence of cointegration (or, more precisely, the rejection of the null of no cointegration) is confirmed even by the two types of rho statistics (within and between). This certainly provides reassuring support, given that Pedroni (2004) concludes in his simulation study: "For example, in very small panels, if the group rho statistic rejects the null of no cointegration, one can be relatively confident of the conclusion because it is slightly undersized and empirically the most conservative of the tests."

Table 1

Cointegration of the long-term lending rate and its explanatory variables

Results of Pedroni panel cointegration tests

	Panel 21	Panel 10
Four cross-section variables: y5loanr, y2depr, m1ibk, y10gov		
	p-value	*p-value*
Panel rho statistic	0.000	0.000
Panel ADF statistic	0.000	0.000
	p-value	*p-value*
Group rho statistic	0.000	0.000
Group ADF statistic	0.000	0.000

Source: Authors' estimations.

Note: Null hypothesis: no cointegration; sample for both panels: January 2003 to December 2014.

Also for the panel ECMs that we use as robustness checks (by including euro area annual inflation and/or the year-on-year change in euro area industrial production as control variables), the ADF statistics and rho statistics of Pedroni cointegration tests reject the null of no cointegration at the 1% level in all cases.

In both panels, the adjustment coefficient for the disequilibrium in levels lagged by one period is statistically highly significant and has a negative sign (table 2). This indicates that preceding changes which bring the difference (in levels) between the long-term loan rate and the explanatory variables out of line with its long-run equilibrium will induce corrective changes such that the long-run equilibrium between these variables remains stable over time. In particular, a shock that has raised the level of the government bond yield in the previous period implies an added factor to the long-term loan rate in the current period.

The size of the adjustment coefficient is around –0.2 and –0.4, respectively, implying five and two to three months, respectively, as the adjustment period. The fact that the adjustment coefficient is higher (in absolute terms) in the balanced panel may indicate that cointegration or adjustment to disequilibria does not exist or is less pronounced in some countries included in the larger but not the smaller panel.

Table 2

Fixed-effects (FE) panel error correction models (ECMs) for the long-term lending rate

Parameter of adjustment to disequilibrium in levels (coefficient of error correction term, ECT)

	Panel 21		Panel 10	
Panel ECM with the number of lags and leads determined by AIC				
Four cross-section variables: y5loanr, y2depr, m1ibk, y10gov				
Number of observations (after sample adjustments)	143		142	
	unbalanced		*balanced*	
Total pool observations	2815		1420	
	coefficient	*p-value*	*coefficient*	*p-value*
ECT (–1)	–0.196	0.000	–0.449	0.000

Source: Authors' estimations.

Note: Sample for both panels: January 2003 to December 2014; AIC: Akaike information criterion.

The (negative) sign and statistical significance do not change if we apply robustness checks, in particular if we include euro area annual inflation and/or the year-on-year change in euro area industrial production as additional explanatory variables or if the ECM includes lags of its dependent variable, which is the first difference of the long-term loan rate.

When including lags of the differenced dependent variable (with the number of lags determined by the Akaike information criterion), the (absolute) size of the adjustment coefficient is clearly lower in both the unbalanced and the balanced panel – it is about half its size in the former and less than half its size in the latter case. Again, in both cases, this result is fairly robust to adding euro area inflation and/or euro area industrial production as control variables, i.e. there is a similar reduction in the size of the adjustment coefficient.

However, the post-estimation Wald test on the cross-sectional specific adjustment coefficients renders a less clear-cut picture for both panels (available from the authors upon request). The results allow for rejecting the null hypothesis of homogeneity of the adjustment parameter across countries not only for the basic four-variable variant of the large and unbalanced panel, but also for the basic variant of the smaller, balanced panel. Yet, this result is not fully robust, as we cannot reject the null (at a high confidence level) under some other variants of these two panel models. Nevertheless, this finding corroborates our agenda to go for individual country models in a second step.

Looking at the panel results for the long-run relation between the long-term loan rate and the explanatory variables, we find a high statistical significance of the government bond yield in explaining the long-term lending rate in both the unbalanced and the balanced panel (table 3). Moreover, we find that the long-term deposit rate and the interbank money market rate are also statistically highly significant in both types of panels.

At the same time, the size of the long-run coefficient of the government bond yield is clearly lower than that of the long-term deposit rate in both panels. By contrast, it is clearly higher than that of the short-term interbank rate in the

Table 3

Long-run fixed-effects (FE) panel cointegration equation for the long-term lending rate

Results of the fixed-effects (FE) panel dynamic OLS (DOLS) equations, with the number of lags and leads determined by AIC

	Panel 21		Panel 10	
Four cross-section variables: y5loanr, y2depr, m1ibk, y10gov				
Number of observations (after sample adjustments)	134		134	
	unbalanced		*balanced*	
Total pool observations	2,626		1,340	
	coefficient	*p-value*	*coefficient*	*p-value*
y2depr	0.665	0.000	0.461	0.000
m1ibk	–0.107	0.001	0.063	0.001
y10gov	0.196	0.000	0.154	0.000

Source: Authors' estimations.

Note: Sample for both panels: January 2003 to December 2014.

balanced panel. The result that the short-term interbank rate even has a negative sign in the unbalanced panel may reflect divergent developments at the short end and the long end of the yield curve and/or (crisis-related) increases in the lending margin in some countries included in the larger but not the smaller panel.

These results – both with respect to statistical significance and to the sign and the approximate size of the coefficients – are robust for both types of panel to including euro area annual inflation and/or the year-on-year change in euro area industrial production as control variables.

Finally, looking at the two subperiods before and after September 2008, the influence of the long-term government bond yield seems to have declined, with its coefficient in the balanced panel declining moderately from 0.225 in the first to 0.145 in the second subperiod. According to the Wald test, we can reject the null of equal government bond yield coefficients across both subperiods at a significance level well below 5%. This may reflect, first, the increased role of funding and funding strains during and after the crisis, as the coefficient of the long-term deposit rate rose moderately (according to a similar Wald test). Second, it may reflect the special development of the euro area government bond markets during the sovereign debt crises of some euro area countries, with the corresponding contagion effects to other euro area countries not having been fully transmitted to the long-term lending rates in these countries.

3.2 Individual country models

Among the 21 countries under study, we find at least one long-run equilibrium relation between the loan rate, the deposit rate, the money market rate and the government bond yield in 15 countries, including 12 euro area countries, in particular in all countries for which longer time series are available, with the exception of Spain (see table 4).

In the corresponding 15 country-level VECMs, the cointegrating vector (beta vector) in which the long-term loan rate was normalized to one shows the government bond yield as statistically significant at the 0.5% level in ten country models and at the 4% level in one further country. In all these cases, the bond yield is also economically relevant. We note that a negative sign of the coefficients of the variables in the cointegrating vector (beta vector) has to be interpreted as implying a positive influence on the dependent variable in level terms (that is, the long-term lending rate). The size of the coefficient ranges from 0.1 in Portugal to 1.1 in Italy, coming to 0.5 and 0.7, respectively, in France and Germany, usually considered core economies.[7] In four countries, namely Luxembourg, Slovenia, Hungary and Romania, the government bond yield does not enter the error correction term (ECT) as statistically significant.

For those country-level VECMs for which more than one cointegrating vectors are found, one or more of the other explanatory variables are missing for identification purposes. This drawback (compared to the long-run relation in the panel model) prevents a systematic comparison of these variables across all countries.

In all country-level VECMs, the coefficient of the ECT (adjustment coefficient) is statistically significant in the loan rate equation, mostly at the 0.5% level,

[7] *All these coefficients indicate a positive long-run influence on the dependent variable, but enter the long-run equation (beta vector) with a negative sign, as shown in table 4.*

except in Hungary (at 2%) and Romania (only at 7%). Moreover, this element of the alpha vector has the appropriate negative sign in all cases. The speed of adjustment varies between less than one quarter and more than three quarters of a year. The corresponding country-specific adjustment coefficients range from 0.11 in France to 0.78 in Finland. We note that the size of the adjustment coefficient in

Table 4

Country VECMs with four endogenous variables

	Number of cointegrating vectors (rank of VECM)	Adjustment coefficient (alpha vector) of first cointegrating vector in y5loanr equation	First cointegrating vector (beta vector) with coefficient of y5 loanr normalized to 1				
			y5loanr	y2depr	m1ibk	y10gov	Constant
		Coefficients and corresponding p-values (if < 0.10)					
DE	1	–0.520 0.00	1.0	–0.1 0.08	–0.0	–0.7 0.00	–2.0 0.00
FR	1	–0.112 0.00	1.0	0.2 0.06	–0.2 0.00	–0.5 0.00	–2.7 0.00
AT	1	–0.576 0.00	1.0	–0.1	–0.1	–0.4 0.00	–2.4 0.00
NL	2	–0.130 0.00	1.0	0.0	0.0	–0.5 0.00	–3.1 0.00
BE	2	–0.144 0.00	1.0	–0.0	–0.1 0.03	–0.7 0.00	–1.8 0.00
LU	2	–0.760 0.000	1.0	0.0	–0.6 0.00	–0.1	–2.6 0.00
FI	2	–0.780 0.00	1.0	–0.0	–0.3 0.00	–0.3 0.00	–2.3 0.00
IE	2	–0.406 0.00	1.0	0.0	–0.2 0.01	–0.2 0.01	–3.7
IT	2	–0.295 0.00	1.0	0.0	0.0	–1.1 0.00	–1.0
ES	0						
PT	2	–0.699 0.00	1.0	0.0	0.0	–0.1 0.04	–8.5 0.00
SI	1	–0.764 0.00	1.0	–0.5 0.00	–0.3 0.00	0.0	–4.5 0.00
SK	0						
LT	2	–0.540 0.00	1.0	0.0	0.3 0.01	–0.6 0.00	–4.4 0.00
DK	1	–0.247 0.00	1.0	–1.0 0.00	0.4 0.00	–0.8 0.00	–1.4 0.00
SE	0						
GB	0						
CZ	0						
PL	0						
HU	1	–0.061 0.02	1.0	–22.9 0.00	11.1 0.00	–1.7	21.6
RO	1	–0.037 0.07	1.0	3.4 0.00	–3.5 0.00	0.6	–14.1 0.00

Source: Authors' estimations.

Note: y5loanr: average fixed rate for loans to private nonbanks with a maturity equal to or above 5 years; y2depr: average fixed rate for deposits from private nonbanks with a maturity equal to or above 2 years; m1ibk: one-month interbank money market rate; y10gov: yield-to-maturity of government bond with maturity of 10 years.

the small panel was roughly in the middle of this range, and that these country models confirm the lack of homogeneity of the adjustment parameter across countries, as evidenced by the Wald test described above.

In contrast to the loan rate equation, the corresponding adjustment coefficient in the government bond yield equation is generally not statistically significant even at the 10% level. Only in two cases does it show up as significant at the 2% or 4% level, respectively. It follows that the correction of any disequilibrium between the long-term lending rate and the government bond yield generally runs via the adjustment of the lending rate only, and that a sufficiently quick and strong feedback loop from long-term lending rates to long-term government bond yields does not seem to be in place. We note that although we tackled any possibly existing endogeneity bias by using DOLS estimates in the panel approach, these country-level results provide some ex post justification for applying the simpler panel ECM (with the long-term loan rate as the dependent variable) instead of a panel VECM, as these results indicate that reversed causality (and thus the issue of endogenous regressors) is likely to be limited.

The robustness check performed by adding control variables (annual inflation only, or both annual inflation and the annual growth of industrial production) causes a few substantial changes for some countries. In particular, in Hungary, the cointegrating vector (which includes an insignificant bond yield in the basic model) vanishes; that is, it is not statistically significant. By contrast, in three of the six countries where the basic model has no long-run relation, namely in Spain, Sweden and Poland, a cointegrating vector emerges in the broader of these two model variants and includes a significant government bond yield in the case of Spain and Sweden. Otherwise, the established results remain largely unchanged. In particular, both the adjustment parameter and the government bond yield in the long-run equation remain statistically significant and economically relevant in all 11 countries for which we had such a result in the basic model (with the exception of Belgium with respect to the significance of the yield, but only in the narrower of the two model variants). Moreover, the coefficient of the government bond yield is even larger in the broader model variant used for the robustness check than in the basic variant in most of these countries. Besides, cointegration remains in place, together with a government bond yield that remains insignificant, in the remaining three countries (Luxembourg, Slovenia, Romania) out of the 15 countries that showed at least one cointegrating vector under the basic variant.[8]

VAR models are estimated for those six countries that do not show a long-run equilibrium relation between the four time series of the basic model (loan rate, deposit rate, money market rate and government bond yield), namely Spain, Slovenia, Sweden, Great Britain, the Czech Republic and Poland.

Checking the stability condition of the VAR models in levels and in first differences, respectively, post-estimation diagnostics show that in the former case, the modulus of at least one eigenvalue is rather close to one in each of these countries. In addition to this finding, we consider a model in first differences as better comparable with the VECMs. Hence, we opt for the VAR in first differences.

[8] *The detailed results of all robustness checks for both the individual country models and the panel error correction model are available from the authors on request.*

Looking at the corresponding cumulative orthogonalized IRFs for the effect of a shock to the change in the government bond yield on the change in the long-term lending rate (see chart A2), we find a positive response that appears to be statistically significant (as judged by the bootstrapped 95% confidence bands) in two of these six countries, namely in Sweden and Poland. In the other four countries (Spain, Slovakia, Great Britain and the Czech Republic), the effect is close to zero or statistically not significantly different from zero. These results are confirmed also when using GIRFs instead of Cholesky-ordered IRFs. Moreover, the robustness check by adding the aforementioned control variables produces only marginal changes of these results.

Overall, the country-specific results show quite a strong role for the government bond yield in influencing the long-term lending rate in countries for which longer time series are available, including most euro area countries. Most countries for which we find a rather limited role of the government bond yield in influencing the long-term lending rate are CESEE countries. While among these countries only Hungary has longer time series, the length of the time series is probably only one factor for this finding. Other factors probably relate to structural features of the banking sector in CESEE countries, like foreign ownership of a large part of the banking sector or foreign currency lending, which could render the domestic local currency bond yield of the sovereign a less relevant benchmark.

4 Conclusions

To our knowledge, this paper is the first to systematically investigate the direct impact of long-term government bond yields on long-term fixed-rate bank lending rates for new loans to the private nonfinancial sector in a large sample of European countries.

On the basis of our analysis of two cross-country panel samples and of 21 individual EU countries, we conclude that long-term sovereign bond yields have a significant positive and substantial impact on long-term fixed-rate bank lending rates on loans to the private nonfinancial sector in most euro area countries and in some non-euro area countries, e.g. Denmark and Sweden. In particular, long-term sovereign bond yields play an important role not only in peripheral euro area countries, but also in core euro area economies. For example, in the long run, an increase of the government bond yield by 100 basis points leads to a rise in the long-term lending rate by 50 basis points in France, 70 basis points in Germany and about 100 basis points in Italy.

Most countries for which we find a rather limited influence of the long-term government bond yield on the long-term lending rate are CESEE countries. Apart from the generally shorter length of the time series, some structural features of the banking sector in CESEE countries may help explain this result, in particular foreign ownership of a large part of the banking sector and/or foreign currency lending, which could render the domestic local currency bond yield of the sovereign a less relevant benchmark.

Based on the panel study, we find that in most euro area countries and in some non-euro area countries, the strong influence of government bond yields on these lending rates was not just a crisis-related or post-crisis phenomenon, but rather was present already before the start of the Great Recession in 2008.

Indeed, long-term sovereign bond yields were economically more relevant for long-term fixed-rate bank lending rates than the short-term money market rate in the full period to end-2014 as well as in both subperiods before and after September 2008.

In terms of their relevance for policy, our findings lend support to the view that unconventional monetary policy measures that have – inter alia – a more direct impact on sovereign bond yields also exert a significant influence on the long-term lending rates via this yield channel.

Furthermore, we consider these insights as important for the design of rules that should provide a stable regulatory framework over the economic and financial cycle for all countries. In particular, our findings suggest a cautious approach when designing changes to the regulatory treatment of sovereign exposures. To the extent that such changes cause a sustained widening of sovereign yield spreads ceteris paribus, the impact of yields on long-term lending rates could entrench real economic divergences between EU countries and in particular within the euro area.

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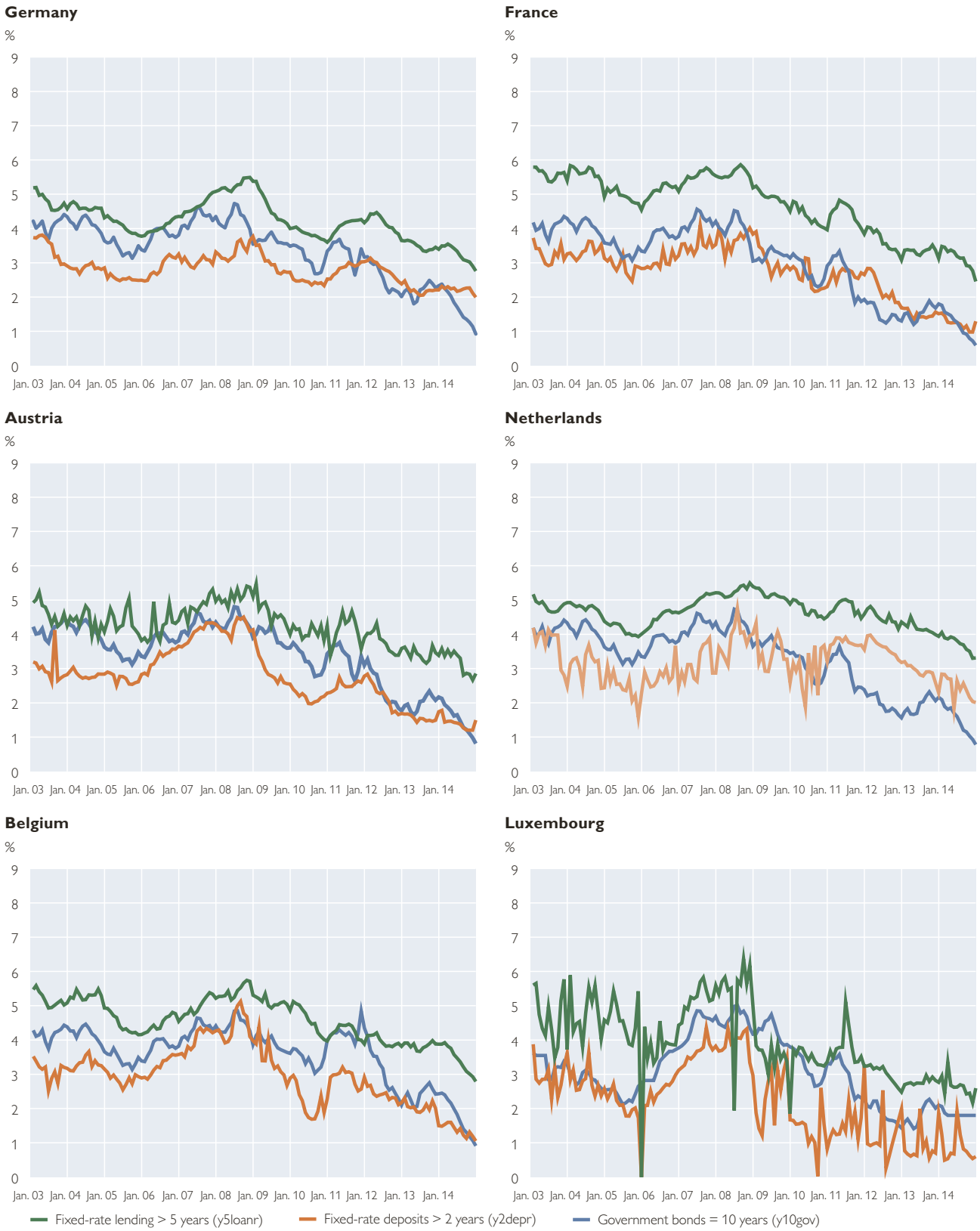
Annex

Chart A1

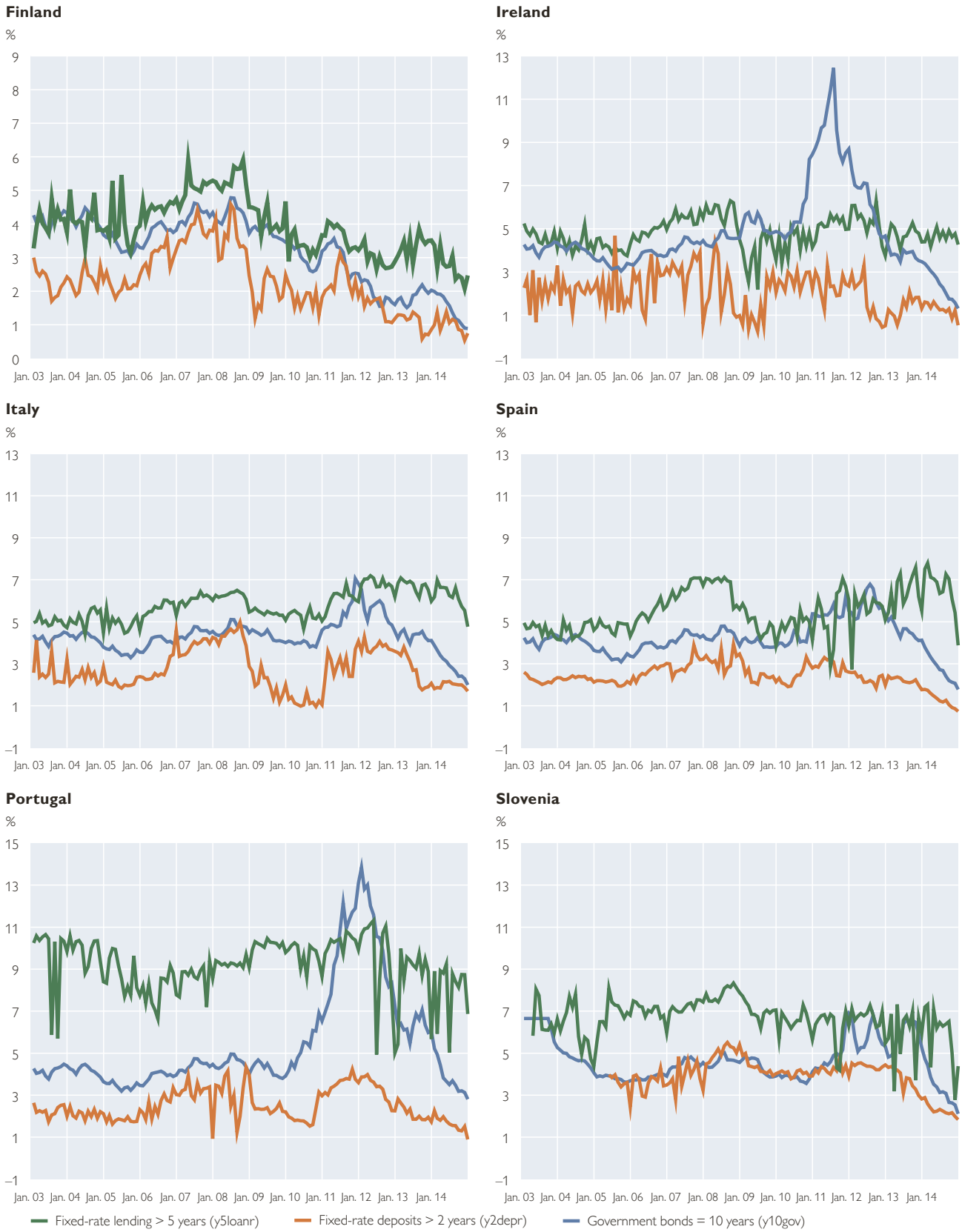
Long-term lending rate, long-term deposit rate and ten-year government bond yield



Source: ECB, authors' calculations.

Chart A1 continued

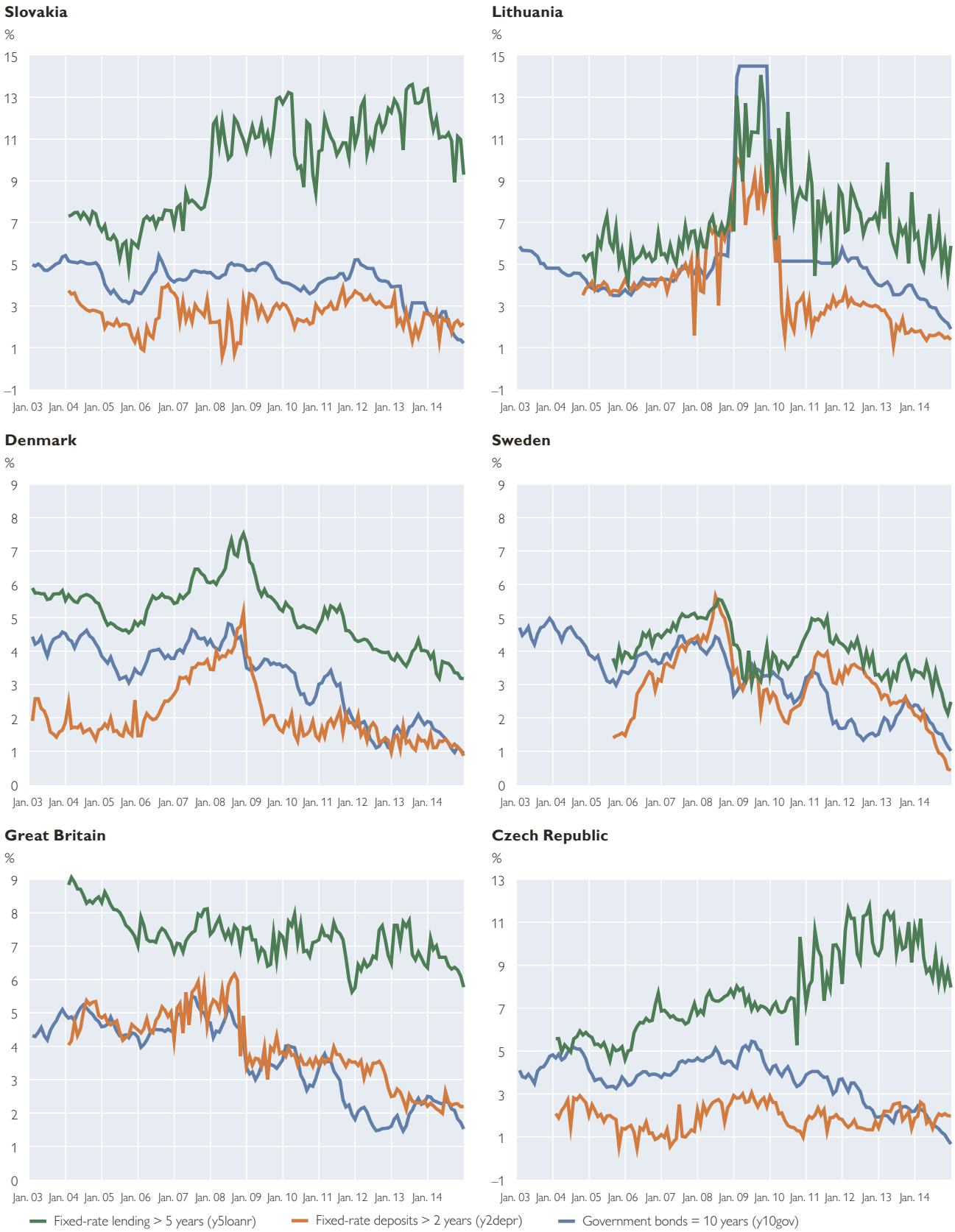
Long-term lending rate, long-term deposit rate and ten-year government bond yield



Source: ECB, authors' calculations.

Chart A1 continued

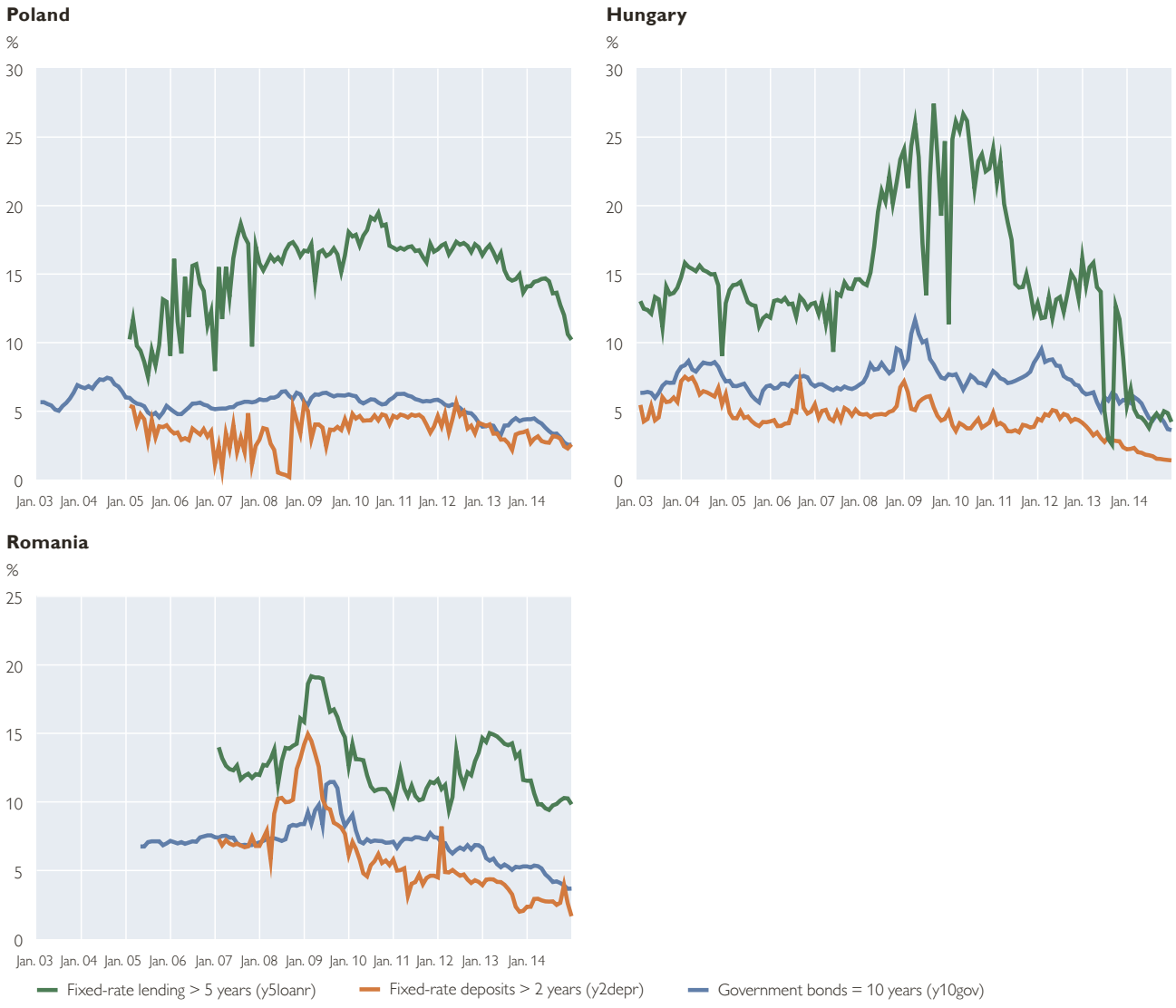
Long-term lending rate, long-term deposit rate and ten-year government bond yield



Source: ECB, authors' calculations.

Chart A1 continued

Long-term lending rate, long-term deposit rate and ten-year government bond yield



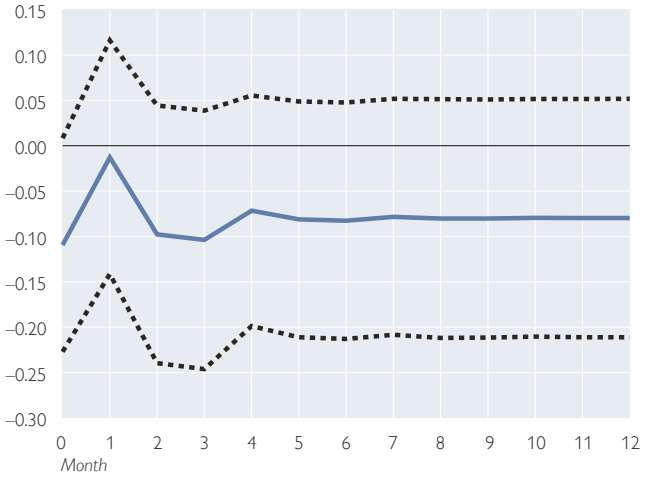
Source: ECB, authors' calculations.

Chart A2

Response of the long-term lending rate to an impulse from the ten-year government bond yield

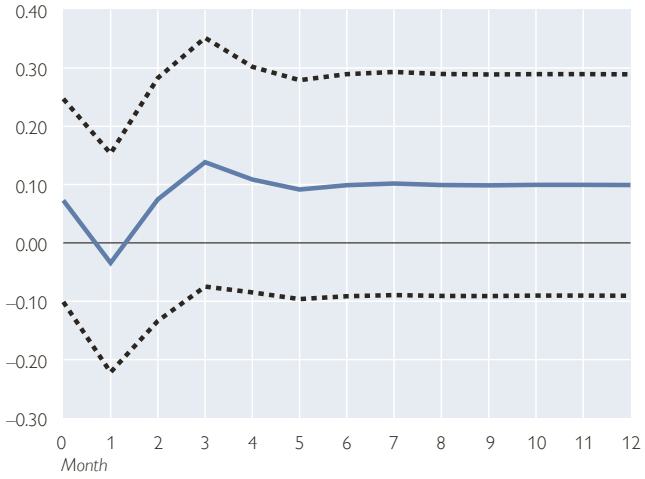
Spain

Cumulative orthogonalized impulse response function (COIRF) with 95% confidence interval (CI) from a VAR model in first differences



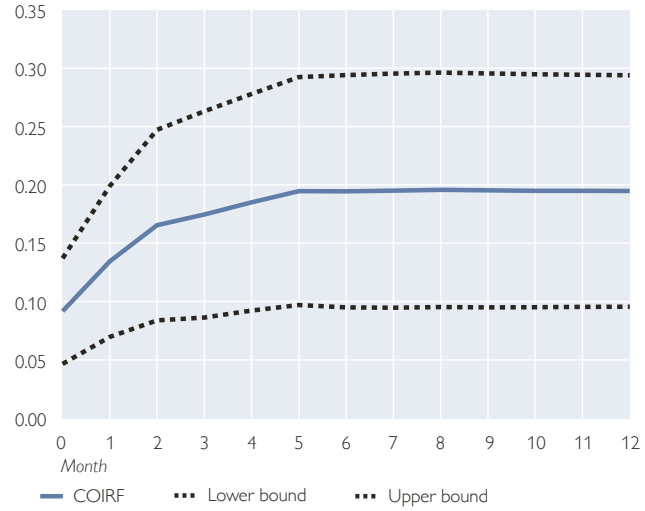
Slovakia

Cumulative orthogonalized impulse response function (COIRF) with 95% confidence interval (CI) from a VAR model in first differences



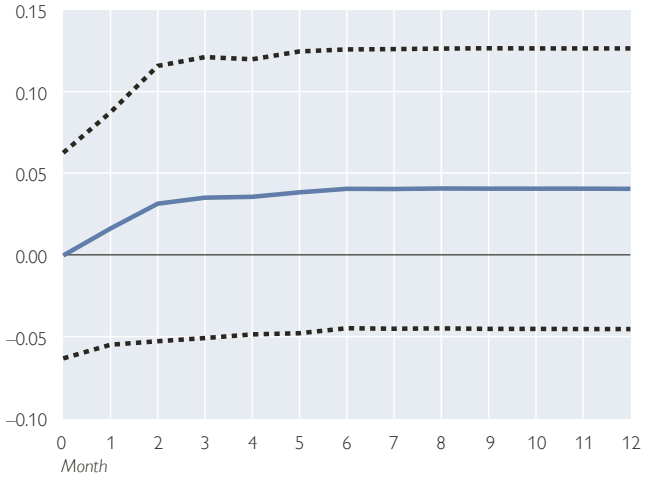
Sweden

Cumulative orthogonalized impulse response function (COIRF) with 95% confidence interval (CI) from a VAR model in first differences



Great Britain

Cumulative orthogonalized impulse response function (COIRF) with 95% confidence interval (CI) from a VAR model in first differences



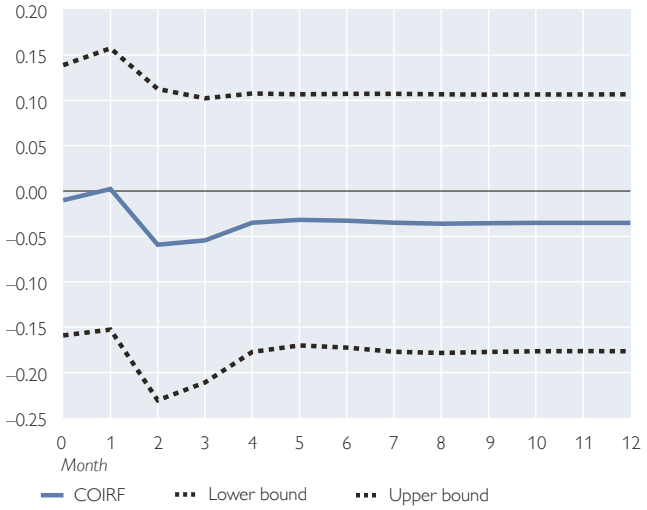
Source: Authors' own estimations based on STATA.

Chart A2 continued

Response of the long-term lending rate to an impulse from the ten-year government bond yield

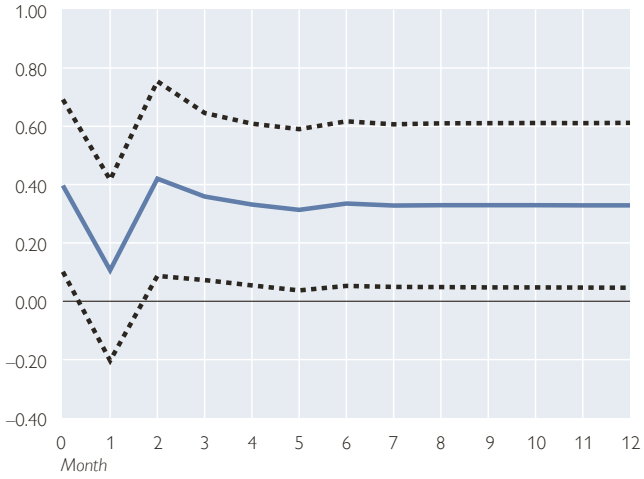
Czech Republic

Cumulative orthogonalized impulse response function (COIRF) with 95% confidence interval (CI) from a VAR model in first differences



Poland

Cumulative orthogonalized impulse response function (COIRF) with 95% confidence interval (CI) from a VAR model in first differences



Source: Authors' own estimations based on STATA.

Understanding the drivers of capital flows into the CESEE countries

Markus Eller,
Florian Huber,
Helene Schuberth[1]

We analyze the relationship between global factors and country-specific capital flow dynamics in a sample of 12 Central, Eastern and Southeastern European (CESEE) countries from 1994 until 2014. We detect a pronounced time-varying pattern of capital flow volatility that mirrors well-known crisis episodes in several instances. We show that the global co-movement of macroeconomic, financial and capital flow variables is able to explain the lion's share of volatility of gross capital inflows into CESEE economies and that it became even more important after the 2008/09 global financial crisis. In particular, global financial factors that approximate the global financial cycle explain by far the largest share of capital flow volatility, followed by the global real business cycle component. If common global factors are dominant in explaining the volatility of gross capital inflows, a combination of better international coordination of economic policies, macroprudential measures or capital flow management instruments is advisable to smooth the capital flow cycle. We also show that gross capital inflows were so sizeable in some countries between 2003 and 2008 that common global (financial) factors like the buildup of global leverage were not as dominant as in other periods – a result that could partly be the outcome of the strategic positioning of foreign banks in the region.

JEL classification: C38, F32, F41, F42, F44
Keywords: volatility of capital flows, factor stochastic volatility model, global co-movement, global real business cycle, global financial cycle, CESEE

Historically, boom-bust cycles in capital flows display striking similarities. Extensive capital inflows tend to fuel the buildup of macroeconomic imbalances, such as excessive credit (including foreign exchange-denominated lending), rising currency mismatches, surging property and asset prices, and inflationary and currency appreciation pressures. Sudden stops and reversals of capital flows usually trigger sharp economic downturns with a lasting impact and leave the banking system with rising nonperforming loans that act as an additional drag on lending.

Very often, volatile cross-border capital flows represent a challenge to cyclical conditions in emerging and advanced economies alike. Recent examples are the surge of capital flows to some emerging markets in the aftermath of monetary accommodation in the advanced economies following the global financial crisis and the withdrawal of cross-border capital from some emerging economies after the Federal Reserve System's (Fed's) tapering announcement in May 2013 (see IMF, 2016).

It seems that capital flows are driven by some global factors. Calvo et al. (1993, 1996) already recognized this and distinguished global "push" factors from the country-specific "pull" factors. Rey (2015) as well as Passari and Rey (2015) show that capital flows follow a global financial cycle, as the monetary conditions of the main financial centers may spill over to other countries. It follows that even under flexible exchange rate regimes, the autonomy of monetary policy and financial stability may be jeopardized.

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Eller et al. (2016b, unpublished mimeo) also find strong evidence for a global financial cycle. They use a factor stochastic volatility model to study the relationship between global macroeconomic and financial factors and country-specific capital flow dynamics for a sample of 39 countries worldwide from 1994 until 2014. They show that the global co-movement of macroeconomic, financial and capital flow variables is able to explain a major share of country-specific capital flow volatility across all the considered regions and that this impact has become more important in the aftermath of the global financial crisis.

This paper is based on material and insights presented in Eller et al. (2016b), digging deeper into the single-country results for the CESEE region and asking to which extent the global co-movement of macroeconomic, financial and capital flow variables is relevant for explaining fluctuations of capital flows across 12 CESEE countries.[2] Two interrelated characteristics make the CESEE region stand out: First, during the 2008/09 crisis, the CESEE region as a whole suffered larger output declines than any other region in the world (Berglöf et al., 2009). Second, the size of capital inflows into CESEE before the crisis hit, in particular in the years following the 2004 EU enlargement round, was just as extraordinary. It is well understood that the severe boom-bust cycle in capital flows that CESEE experienced, the strength of this cycle, its macrofinancial implications as well as the evolution of flows by type of capital differed markedly between countries. In general, countries that were receiving the largest capital inflows before the crisis saw the largest reversals, too, and suffered from deep recessions thereafter as a consequence of a liquidity (credit supply) shock and a slump in export demand (EBRD, 2009; Bakker and Klingen, 2012).

What is less well understood, however, is the extent to which this extraordinary influx of capital before the crisis as well as capital flow dynamics thereafter were driven by global common factors or by regional or country-specific phenomena. A respective breakdown allows us to better understand the nature and origins of capital flow dynamics. The economic policy implications are far-reaching. If global factors are dominant, standard textbook prescriptions may no longer apply and the case can be made for better international coordination, for macroprudential measures that limit the reliance on short-term external funding, such as loan-to-deposit ratios or bank levies on noncore bank liabilities,[3] or for capital flow management measures. However, any policy recommendation has to be based on a concise cost-benefit analysis of open capital accounts, which is beyond the scope of this paper.

Studying a sample of 12 CESEE countries from 1994 until 2014, we detect a pronounced time-varying pattern of capital flow volatility that mirrors well-known crisis episodes in several instances. We thus opt to use a framework that is capable of exploiting large datasets and of accounting for shifts in the volatility of the time series involved. Our approach, closely related to the factor stochastic volatility framework of Pitt and Shephard (1999) and Aguilar and West (2000), provides new insights into the relative importance of different fundamental factors

[2] *CESEE-12: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Russia, Slovakia, Slovenia and Turkey.*

[3] *To limit the global financial cycle that is to a large degree transmitted via banks, Shin (2010) proposed a tax on noncore liabilities at a global level.*

across time and space. Since the sensitivity of capital flows to global fundamental factors is subject to structural breaks in the parameters, we assume that the factor loadings are time-varying (following Del Negro and Otrok, 2008).

From our dataset, we extract global factors for macroeconomic variables (GDP growth, inflation, exchange rate dynamics and the trade balance), financial sector variables (short-term and long-term interest rates, changes in equity prices, and private sector credit and deposits), and the respective capital flow variable under investigation (direct, portfolio and other investment flows). For each capital flow variable, we also extract a regional factor that captures common capital flow dynamics within the CESEE region. The global (and regional) factors are used to provide a parsimonious representation of the data, effectively capturing the prevailing co-movement in the dataset. Importantly, we impose the restriction that the factors are, by construction, orthogonal to each other and thus possess a structural interpretation. This implies that the factors do not affect each other directly. Ultimately, a variance decomposition exercise informs us to which extent the extracted factors are able to explain a particular share of the volatility of different types of capital flows in different CESEE countries over time.

The remainder of the paper is structured as follows: Section 1 gives an overview of the capital flow dynamics in CESEE. Section 2 describes the properties of the econometric framework used in our analysis. Details on the database are added in section 3. Section 4 delineates our main results. We find that gross capital inflows were largely driven by factors external to the region, even more so after the global financial crisis. Section 5 discusses some policy options, and section 6 concludes.

1 Capital flows by countries and by type of capital

In the early 2000s, the CESEE countries started to attract large net and gross capital inflows that became particularly sizeable after 2003 when measured relative to the recipient's GDP (see charts 1 and 2 for gross capital inflows and charts A.1 and A.2 in the annex for net flows). As Bakker and Gulde (2010) mentioned, the size of capital inflows into the ten CESEE countries that joined the EU between 2004 and 2007 exceeded that of capital inflows into Southeast Asian countries prior to the 1997/98 Asian crisis. Between 2000 and 2008, cumulative *net capital inflows* into our CESEE-12 sample were nearly 50% of 2000 GDP on average, with the Baltic countries, Bulgaria, Romania, Slovakia and Hungary showing a respective share of considerably more than 100% each (see also chart A2).[4] By contrast, in a comparable period between 1989 and 1997, before the Asian crisis, Indonesia or the Philippines accumulated net capital inflows of just 50% or 100%, respectively, of their 1989 GDP.

In terms of capital type, net portfolio investment flows were largely negligible (except in Hungary) during the pre-crisis boom period, whereas cross-border bank loans (the bulk of other investment flows) were the most important category, followed by foreign direct investment (FDI) (except in Bulgaria, the Czech Republic, Slovakia and Poland, where FDI exceeded other investment). A large share of these other investment and/or portfolio flows is typically considered to be suscep-

[4] *Sum of direct, portfolio and other investment flows between 2000 and 2008, divided by 2000 GDP (everything in current prices and current U.S. dollars).*

tible to sudden withdrawals, whereas FDI reflects both real and financial investment and is more of a medium- to long-term nature. The comparatively vigorous growth in cross-border bank-related financial flows during this period reflects the underlying credit boom in CESEE, the associated stronger growth of credit than of deposits, and the expansion of Western European banks and their centralized funding model, under which funds were channeled to subsidiaries and branches in CESEE (Lane and McQuade, 2013).

In the following descriptive analysis, we focus primarily on gross capital inflows[5] (charts 1 and 2). We also look at net capital flows (charts A1 and A2 in the annex), which are the counterpart of the current account, because the difference between net and gross figures is sizeable in central Europe (except in Poland), the Baltic countries and Russia. In these countries, gross capital inflows were to some extent compensated by higher investment abroad by domestic agents. Interestingly, gross capital inflows and outflows are not strongly correlated in Bulgaria, Poland, Romania and Turkey. It has long been recognized that gross flows are much more volatile and are more relevant for macrofinancial implications than net flows. The reduction in gross capital inflows during a crisis is usually much larger than the decrease in net inflows (Broner et al., 2013). A focus just on net flows may hide the buildup of macrofinancial instabilities.

Between 2000 and 2008, all CESEE-12 countries except Russia were recipients of net capital flows, with the size of flows and the type of capital differing considerably across countries (chart A1). Irrespective of this pronounced heterogeneity of capital flows across countries, the overall nature and origins of the extraordinary influx were quite uniform. Some factors contributing to capital inflows were related to the particular conditions in most of the countries of the region, such as high returns on investment (low wages and low capital-to-labor ratios), the implementation of post-transition reforms (also in preparation of EU membership), improved legal certainty for foreign investors in connection with EU accession, or a comparatively low level of financial depth, which stimulated the demand for foreign investment in the domestic financial sector.[6] Factors that were situated outside the region were the global search for yields in an environment of monetary accommodation in advanced economies alongside low volatility (the Great Moderation), investors' high expectations from integration with Western Europe, and the strategic positioning of foreign banks in CESEE, which increasingly boosted foreign financing intermediated by cross-border banking groups. This capital influx fueled an extraordinary credit boom (to some extent foreign currency lending), nurturing economic growth, a surge in asset prices and current account deficits. There is evidence that imbalances were more pronounced

[5] *We are using balance of payments data available from the IMF's International Financial Statistics (IFS) database according to the BPM6 (IMF, 2009) classification. Note that we cannot resort to pure gross flows, as they are not available in the database. Instead, we rely on a net recording concept (IMF, 2009), whereby debit entries are netted against credit entries. E.g. in the case of the net incurrence of portfolio investment liabilities, new bonds issued are netted against the redemption of bonds issued.*

[6] *A lack of financial depth in CESEE was often used as an argument to justify skyrocketing private sector credit growth rates in 2005 to 2008 as deeper financial markets were expected to eventually benefit the economy (following the finance-led growth hypothesis, e.g. Levine, 1997). However, there were some indications already before the bust in 2007/08 (the Baltic countries) or in 2008/09, respectively, that a number of CESEE countries showed above-equilibrium credit growth rates (e.g. Égert et al., 2006) or that vulnerabilities in CESEE looked worse than in pre-crisis Asia (Bakker and Vladkova-Hollar, 2006).*

in countries with fixed exchange rates (Bakker and Klingen, 2012). However, rather than stemming credit boom and capital inflow pressures, the exchange rate appreciation in a few countries with flexible exchange rates appears to have also fueled gross (bank) capital inflows, probably because local borrowers' balance sheets with loans denominated in foreign currency became stronger (Bruno and Shin, 2015).

When the global financial crisis hit, concerns were great that capital flow reversals would destabilize CESEE's financial system. In early 2008, the region saw a modest slowdown of *gross capital inflows* that translated into a broad reversal after the collapse of Lehman Brothers. The CESEE region shifted temporarily from a net borrowing to a net lending position in its financial account vis-à-vis the rest of the world. While the reversal occurred for most types of capital flows, it was most pronounced in other investments (currency and deposits). But between end-2009 and 2012, gross capital inflows recovered somewhat, largely reflecting portfolio inflows to some countries in the wake of monetary accommodation in advanced economies. The Vienna Initiative, which ensured that banks maintained an exposure to subsidiaries in CESEE, together with stabilization packages of international financial institutions and the EU, was also decisive in avoiding a sharp retrenchment in cross-border lending.

But gross capital inflows remained well below the pre-crisis levels during this period. Contrary to other emerging economies, the CESEE countries – with the exception of the Czech Republic, to some extent Poland, Slovakia and Turkey – did not see strong gross capital inflows as a share of GDP in the course of monetary accommodation in the U.S.A. and other advanced economies after late 2008. In 2011 and 2012, when countries in CESEE were increasingly confronted with contagion effects from the euro area sovereign debt crisis, gross capital inflows into the CESEE countries declined again, in particular in central Europe and Bulgaria (with the notable exception of Turkey). Following the Fed's tapering announcement in May 2013, cross-border bank lending to CESEE continued to decline, in particular in Poland, Turkey (see Eller et al., 2016a) and Russia (partly for geopolitical reasons). Since 2014, the CESEE countries, with the exception of Lithuania, Poland, Romania and Turkey, have seen a retrenchment of gross capital inflows; in some countries – Estonia, Hungary, Latvia, Romania, Russia, Slovakia and Slovenia – gross capital inflows have come to a halt, much like they did in 2009.

Cross-country differences are sizeable. Between 2000 and 2008, *Hungary* stands out for having accumulated the largest gross capital inflows in CESEE when measured as a percentage of its own GDP in 2000. Accumulated gross capital inflows amounted to 426% of domestic GDP in 2000 (chart 2). But unlike in other countries, most of the inflows stem from FDI (280% of 2000 GDP). Hungary was also one of the few countries that could attract more sizeable portfolio investment (47% of 2000 GDP). After a sharp retrenchment starting in 2009, gross capital inflows even turned negative in 2010/11, mainly reflecting stronger repayment than incurrence of FDI.

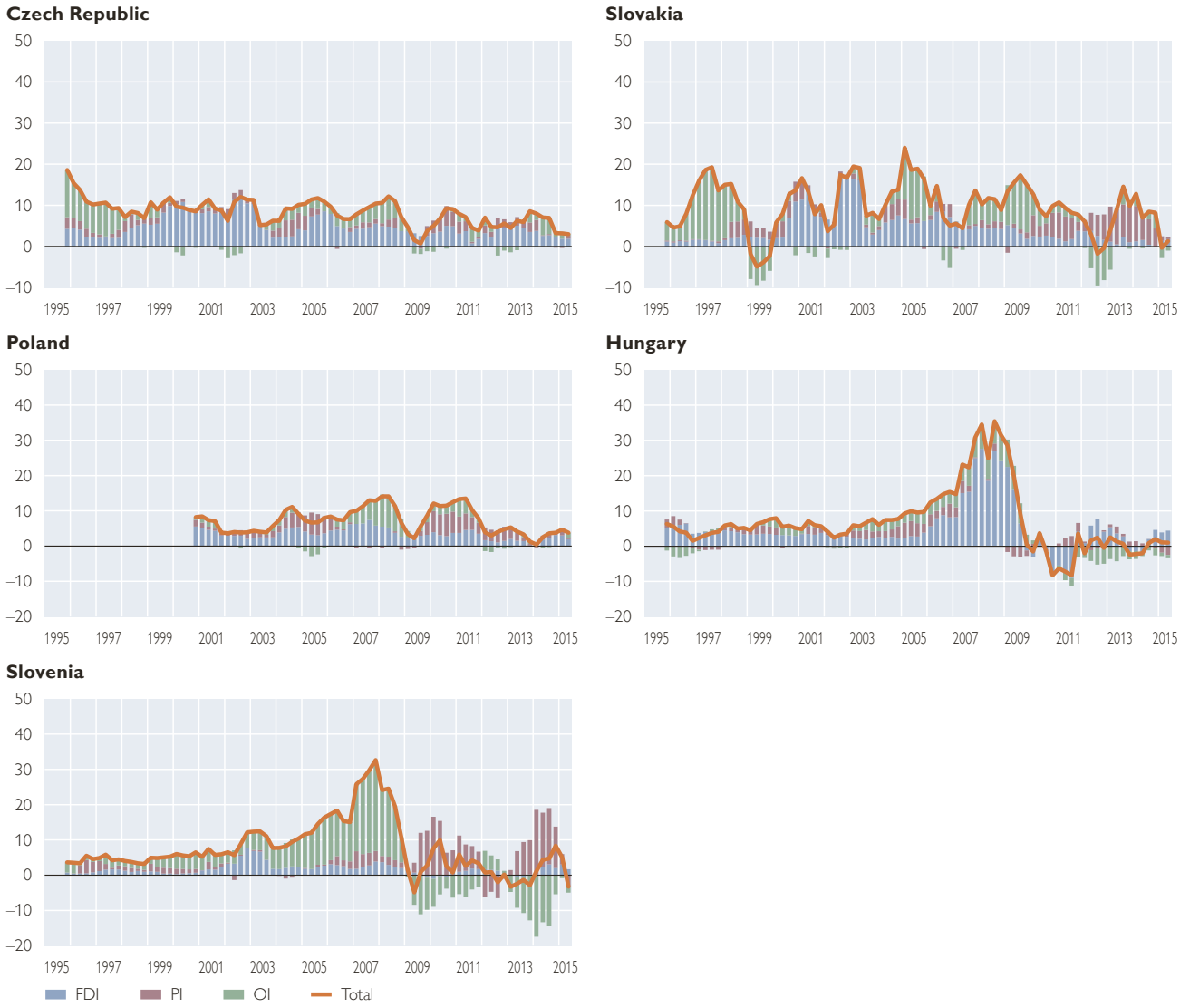
The *Baltic countries* also saw sizeable gross inflows, ranging between 207% (Lithuania) and 386% (Estonia) of 2000 GDP. A large part of these inflows reflected other investment (in particular, currency and deposits). FDI played a more dominant role only in Estonia. Net inflows were much lower during this period,

Chart 1

Gross capital inflows over time

Net incurrence of FDI, PI and OI liabilities (incurrence less repayment)

% of GDP, cumulative four-quarter moving sums



Source: IMF, Eurostat.

signifying that domestic agents also significantly increased their purchases of foreign assets. The severe recession starting in 2009 was accompanied by sizeable reversals of gross capital inflows, in particular of cross-border bank flows. In cumulative terms, between 2009 and the first half of 2015, gross capital inflows declined strongly to between 20% and 30% of 2009 GDP. In parallel, domestic agents increasingly started to invest in foreign assets. As a result, the Baltic countries saw a cumulative net outflow of capital ranging between 10% (Latvia) and 40% (Estonia).

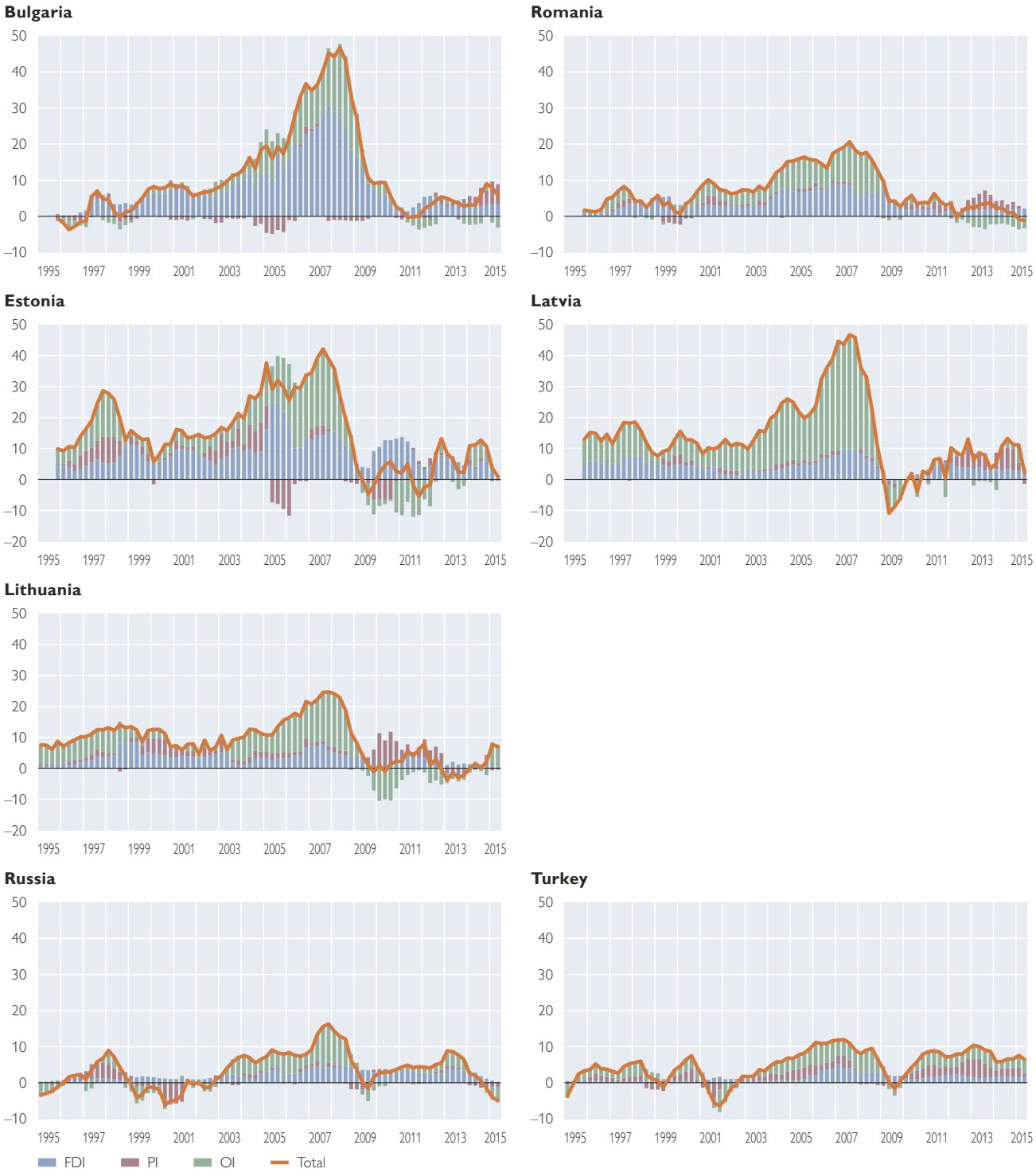
Between 2000 and 2008, *Bulgaria* and *Romania* accumulated gross capital inflows of 357% and 231% of 2000 GDP, respectively. Both countries attracted FDI and other investment, but hardly any portfolio investment flows. After reversing

Chart 1 (continued)

Gross capital inflows over time

Net incurrence of FDI, PI and OI liabilities (incurrence less repayment)

% of GDP, cumulative four-quarter moving sums



Source: IMF, Eurostat.

sharply following the crisis, gross capital inflows declined considerably. Both countries have not seen any sizeable gross capital outflows since 2000. Hence, the evolution of net and gross capital dynamics is quite similar. Like in Hungary, the capital flow cycle in Bulgaria was also driven predominantly by FDI inflows.

The influx of capital into the *Czech Republic, Slovakia* and *Slovenia* was more subdued than that into the Baltic countries, Bulgaria, Hungary and Romania, although it was still large compared to non-European emerging economies in this period (see Eller et al., 2016b). Gross capital inflows ranged between 135% (Czech Republic) to 176% of 2000 GDP (Slovakia). In a breakdown of capital flows, FDI predominated in the Czech Republic and Slovakia, while other investment inflows clearly dominated in Slovenia. While the Czech Republic and Slovakia saw a comparatively muted slowdown in gross capital inflows after the crisis hit, the drop in gross capital inflows – in particular bank loans – was especially severe in Slovenia. However, Slovenia and Slovakia succeeded in attracting considerable portfolio investment, which to some extent offset the strong decline in other investment.

Turkey saw total gross capital inflows of 67% of 2000 GDP until 2008; net inflows proved to be only marginally lower (50%). Gross inflows mostly comprised other investment and FDI. Gross (and net) capital inflows dropped considerably in 2009 but resurged thereafter. Turkey was able to keep the positive capital flow dynamics, attracting in particular other investment and portfolio investment until early 2013. However, after the Fed's tapering announcement in May 2013, portfolio investment inflows steadily declined, while inflows of loans largely kept their level.

Poland accumulated total gross capital inflows of 92% of 2000 GDP (net capital inflows of 63%) between 2000 and 2008, for the most part FDI. Poland is among the few CESEE-12 countries that received further sizeable gross capital inflows immediately after a temporary sharp slowdown of gross capital inflows in 2009. After 2011/12, Poland saw gross inflows continuously slowing down, mainly reflecting reversals of portfolio and other investment. From 2012 until the first half of 2015, Poland received some additional FDI inflows.

Russia's financial account followed a quite different pattern. Between 2000 and 2008, cumulative net capital inflows were negative (–27% of 2000 GDP), reflecting Russia's current account surplus position during this period. In the immediate aftermath of the 1998 Russian financial crisis, gross capital outflows outpaced inflows as a result of withdrawals by domestic and foreign agents. Starting in 2003, both gross inflows and outflows increased sizeably. When the financial crisis began in 2008, Russia experienced a short halt in gross capital inflows, brought about by negative portfolio and other investment gross inflows that were compensated by continuous gross inflows of FDI. In 2010, gross inflows started to recover, but by the end of 2010, they had started to decline again. The decline intensified after the outbreak of the Ukraine crisis at the end of 2013, and gross inflows became negative in the last quarter of 2014. In parallel, gross capital outflows were sizeable from 2011, but have slowed down in 2015.

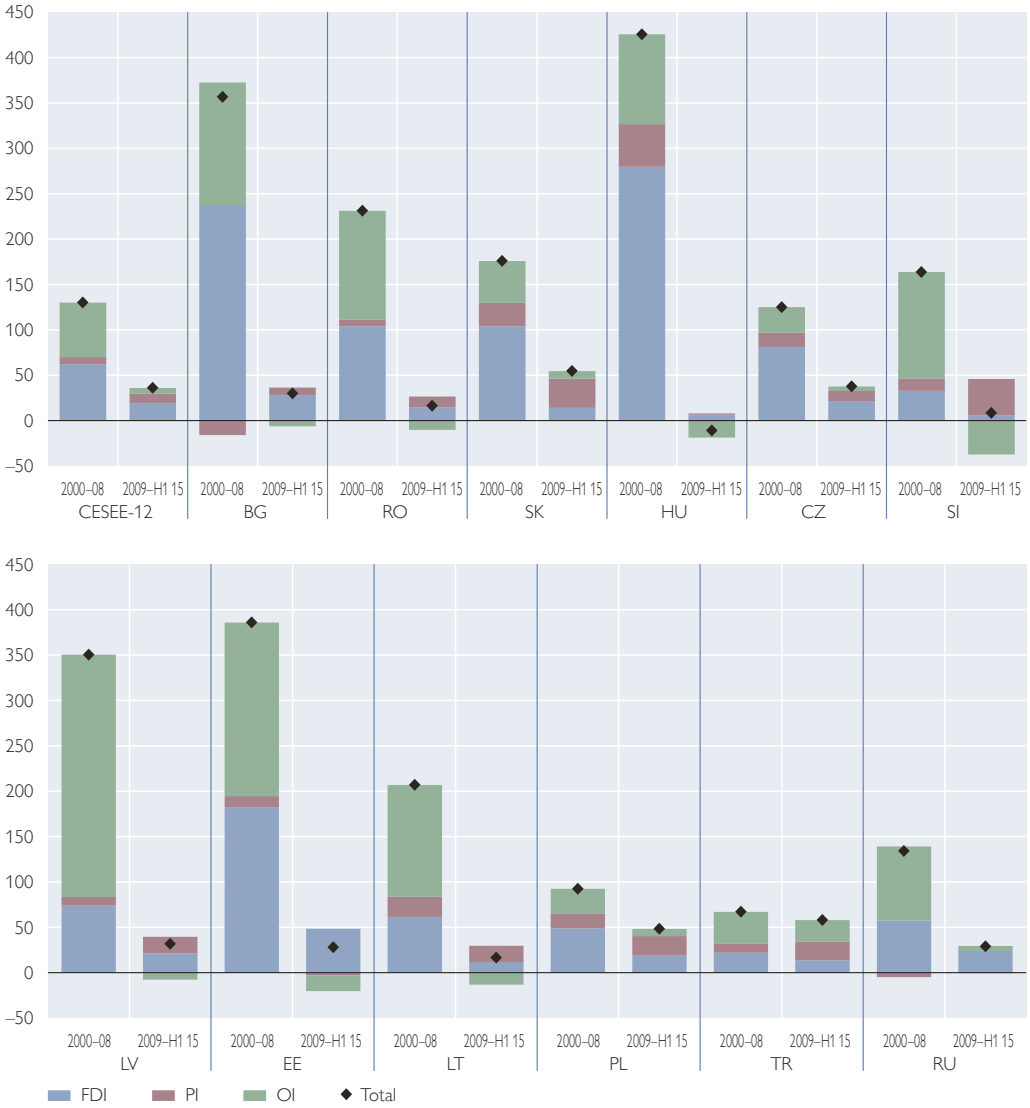
To sum up, prior to the 2008/09 crisis, gross capital inflows predominantly consisted of FDI (including stakes in financial firms) in a small number of countries, while they took the form of cross-border lending to banks and nonfinancial corporations, directly or via bank subsidiaries, in a large number of countries. A few countries, such as Poland, Slovakia, Slovenia or Turkey, also saw considerable portfolio inflows that remained sizeable in the immediate aftermath of the global

Chart 2

Gross capital inflows: 2000–08 versus 2009–15

Net incurrence of FDI, PI and OI liabilities (incurrence less repayment)

% of GDP in the first year of observation (2000 and 2009, respectively)



Source: IMF, Eurostat.

financial crisis, when foreign investors searched for yields in a low-interest global environment. While in the years immediately after 2008, CESEE could still attract gross FDI inflows, albeit declining ones, cross-border credit inflows (including remittances) dropped substantially. Since 2014, the amount of gross capital leaving CESEE has been larger than gross capital inflows.

2 Econometric framework

To explore the relationship between capital flow dynamics in CESEE and global factors, we use a time-varying parameter dynamic factor model with stochastic volatility building on Pitt and Shephard (1999), Aguilar and West (2000), and Del

Negro and Otrok (2008). In the following subsection, we provide a brief overview of the model along with a sketch of the estimation method employed.

2.1 The time-varying parameter dynamic factor model

We assume that a large set of macroeconomic and financial variables in a panel of economies is driven by a set of relatively few latent factors. Moreover, we assume that capital flows into country *i (i = 1, ..., N)*, C_{it}, may be described by the following simple dynamic regression model:

$$C_{it} = \lambda'_{Mi,t} f_t^M + \lambda'_{Fi,t} f_t^F + \lambda'_{Ci,t} f_t^C + \lambda'_{Ri,t} f_t^R + \varepsilon_{i,t}, \quad (1)$$

where

- $\lambda'_{ji,t}$ for $j \in A = \{M, F, C, R\}$ are time-varying factor loading matrices of dimension $1 \times k_j$ that evolve as an independent random walk process, i.e. $\lambda_{ji,t} = \lambda_{ji,t-1} + \eta_{ji,t}$ is a vector white-noise innovation with variance-covariance matrix V_{ji}, which is a full positive definite matrix;
- f_t^j are mutually orthogonal latent factors of dimension k_j that capture the prevailing global co-movement of macroeconomic variables *(M)*, financial variables *(F)* and the respective capital flow variable under investigation *(C)*. In addition to these global factors, we also include a regional capital flow factor *(R)* to capture the notion that capital movements display strong regional tendencies. We assume that these factors follow AR(1) processes, $f_t^j = \Phi_j f_{t-1}^j + e_t$, with $e_t \sim N\left(0, diag\left(e^{h_{1,j,t}}, \ldots, e^{h_{kj,t}}\right)\right)$ and Φ_j being a diagonal matrix with typical element $\phi_{ii} \in (-1,1)$ to ensure stationarity;
- $\varepsilon_{it} \sim N(0, e^{s_{j,t}})$ is a white-noise idiosyncratic error with time-varying variance $e^{s_{j,t}}$. As a residual, it captures everything that has not explicitly been considered in the model, such as country-specific factors or other global and regional driving forces;
- $s_{j,t}$ and $h_{kj,t}$ are log volatilities that follow autoregressive processes of order one.

Equation (1) denotes the observation equation of the model. The law of motions for the log volatilities, the loadings and the latent factors are assumed to be stationary AR(1) processes or random walks.

For the different types of latent factors, we simply assume that different variables are included for each variable type (i.e. global macroeconomic, global financial, global capital and regional capital variables). To give an intuitive example, the group of macroeconomic variables includes GDP growth. A single latent factor is extracted from each country's GDP growth series. This factor captures the common movement of output growth across all the economies considered and can be interpreted as a global real business cycle.[7] The extraction procedure is repeated for all quantities included (see table 2). For the sake of exposition, we then group the different factors into the four categories of variables mentioned above. Recall that in the case of factors capturing common capital flow movements, we extract a single global and a single regional factor from the capital flow series under investigation and include it in the model.

[7] *Likewise, the same procedure is repeated for the change in equity prices, capturing the common component of equity prices returns along with the corresponding stochastic volatility component. This also allows us to endogenously construct a measure of global equity price volatility similar to the volatility index (VIX) of the Chicago Board Options Exchange.*

The assumption that the error variances of both the observation and the state equations are allowed to vary over time is crucial for mimicking the dynamic properties of the capital flow quantities under consideration. Moreover, permitting this variation also allows us to investigate later on whether global driving forces of country-specific capital flows have changed over time. In addition, time-varying factor loadings allow us to capture the notion that the relationship between capital flows in a given country and global driving forces changes over time. Choosing this approach proves to be important in the light of the recent global financial crisis, where a U.S.-based shock spread globally and the prevailing co-movement between financial markets increased considerably.

As emphasized above, we assume that the factors are orthogonal to each other, implying that the variance of each C_{it} is given by

$$Var\left(C_{it}\right)=\sum_{j\epsilon A}\lambda_{ji,t}^{'}Var\left(f_{t}^{j}\right)\lambda_{ji,t}+Var\left(\varepsilon_{it}\right), \qquad (2)$$

which permits us to compute the relative contribution of a given factor in explaining the variance of C_{it}.

2.2 Priors and estimation

Our approach to estimation and inference is Bayesian. We thus impose a set of diffuse standard priors on the coefficients of the model. For the initial state of the loadings $\lambda_{ji,t}^{'}$, we impose a normally distributed prior with mean zero and a prior variance set equal to 4, which is thus rather noninformative on the initial state of the coefficients. Higher values lead to qualitatively similar results, while lower values tend to shrink the initial value of the coefficients strongly toward zero, implying that global factors were relatively unimportant at the beginning of the sample. For the variance-covariance matrix of the factor loadings, we impose an inverted Wishart prior, with the prior scale matrix set equal to a diagonal matrix with 0.1 on its main diagonal. The degrees of freedom are set such that the prior is proper (i.e. set equal to the number of free elements in the state vector plus one). The specific choice of the scaling matrix tends to be quite influential for the final estimates. However, in our application, the specific choice of the scaling matrix proves to be relatively unimportant, as long as it is not set to a matrix too close to the zero matrix. Furthermore, we impose the same set of priors on the state equation of the log volatilities as described in Kastner and Frühwirth-Schnatter (2014).

Our Markov chain Monte Carlo (MCMC) scheme simulates the full history of the factor loadings with the algorithm described in Carter and Kohn (1994) and Frühwirth-Schnatter (1994). With the loadings known, the state variance-covariance matrices can be sampled from an inverted Wishart distribution that takes a standard form. The diagonal elements of Φ_j are simulated through a simple Gibbs step where we impose the condition $\left|\phi_{ii}\right|<1$. The stochastic volatility components are simulated by means of the algorithm proposed in Kastner and Frühwirth-Schnatter (2014). Finally, we do not simulate the latent factors, but approximate them through their principal components. As opposed to a fully fledged simulation approach, this choice proves to be necessary because our full data matrix consists of over 390 time series, which renders simulation-based methods infeasible. Our MCMC algorithm is repeated 20,000 times, with the first 10,000 draws from the joint posterior being discarded as burn-in.

3 Data preparation for estimation

We use the dataset described in Eller et al. (2016b), which consists of quarterly data from Q1 94 until Q4 14 for a worldwide sample of 39 countries, and include a total of ten macroeconomic and financial time series for each country (see tables 1 and 2 listing the countries, variables and data sources). This choice of variables closely resembles the typical set of macroeconomic and financial quantities included in the literature on global macroeconometric modeling (see, for instance, Feldkircher and Huber, 2016; Crespo Cuaresma et al., 2016) augmented with a set of additional explanatory variables that were previously identified to be important determinants of capital flows (e.g. Milesi-Ferretti and Tille, 2011; IMF, 2014; Mishra et al., 2014; Olaberria, 2014). Using a broad sample of countries allows us to track economic spillovers that might influence the intensity of capital inflows. As opposed to the literature on modeling capital flows by means of gravity equations (e.g. Portes et al., 2001; Portes and Rey, 2005), we do not aim to explain bilateral movements in capital flows but focus on ex-

Table 1

Country coverage

CESEE (12): BG, CZ, EE, HU, LT, LV, PL, RO, RU, SI, SK, TR
Advanced Europe (12): AT, DE, DK, ES, FI, FR, GB, IT, NL, NO, PT, SE
Advanced non-Europe (6): AU, CA, JP, NZ, US, ZA
Latin America (5): AR, BR, CL, MX, PE
Asia (4): ID, KR, PH, TH

Source: Authors' compilations.

Note: Abbreviations represent the two-digit ISO country code.

Table 2

Variable description

Variable type	Variable	Description
Macro	GDP growth	GDP volume, 2010=100, seasonally adjusted, in logarithms, quarter-on-quarter change
Macro	Inflation rate	(Harmonized) consumer price index, 2010=100, seasonally adjusted, quarter-on-quarter change
Macro	REER change	Real effective exchange rate, CPI-based index, seasonally adjusted, in logarithms, quarter-on-quarter change
Macro	Trade balance change	Exports over imports of goods and services, CPI deflated, seasonally adjusted, in logarithms, quarter-on-quarter change
Financial	Short-term interest rate	Typically, three-month money market rate (per annum)
Financial	Long-term interest rate	Typically, yield on ten-year government bonds (per annum)
Financial	Equity price growth	Equity price index, 2005=100, seasonally adjusted, in logarithms, quarter-on-quarter change
Financial	Credit growth	Claims on domestic private sector, CPI deflated, seasonally adjusted, in logarithms, quarter-on-quarter change
Financial	Deposit growth	Deposits of domestic private sector, CPI deflated, seasonally adjusted, in logarithms, quarter-on-quarter change
Capital	Capital flows	Cumulative four-quarter moving sums of gross direct investment, portfolio investment and other investment inflows in U.S. dollars as a percentage of nominal GDP (transformed into U.S. dollars by using the average quarterly rate of the local currency per U.S. dollar)

Source: Authors' compilations. Data are taken primarily from the IMF's International Financial Statistics (IFS) database but also from the OECD, ECB, Eurostat and Thomson Reuters.

Note: Seasonal adjustment was conducted by using the difference from the moving average. If the short-term (long-term) interest rate was not available, we used the dynamics of the deposit (lending) rate for data interpolation. In the case of few missing observations at the beginning or the end of the sample, we used the average of the subsequent or previous four quarters to fill these gaps. For more details, see Eller et al. (2016b).

plaining the variation of different types of capital inflows by means of global fundamental factors.

4 Empirical findings

While the descriptive part (section 1) stressed both gross and net flows, in this section we exclusively present our results for an empirical proxy for gross capital inflows, i.e. the net incurrence (incurrence less repayment) of financial liabilities. Our main analytical interest lies in gaining a better understanding of the driving forces of volatile *gross* capital inflows, in line with the observation that during a situation of elevated global macrofinancial risk, foreign investors are likely to downsize their investment in markets they perceive as particularly risky (IMF, 2013).

Chart 3 shows the variance decomposition results for incurrence less repayment of totaled direct, portfolio and other investment liabilities over time for nine individual CESEE countries and for the Baltic countries as a group. The time-varying, standardized volatility of the respective capital flow series is depicted as a dark line (right-hand side scale) in each panel. Global or regional economic and financial crises are readily visible in the increasing volatility of gross capital inflows, in particular in the run-up to the global financial crisis in 2008/09. The sudden stop is followed by an abrupt decline in the volatility measure. Russia and Turkey stand out, as they experienced additional financial crises (Russia: 1998/99, Turkey: 2001). These crisis periods, together with the retrenchment of gross capital inflows in Russia and to some extent in Turkey and Poland since 2013, are visible in a rise in the volatility measure. In the case of Russia, the volatility of capital inflows strongly increased after 2013 to a level similar to that observed in 2008/09.

A common feature of all country groups is that they received – to varying degrees – sizeable and accelerating gross capital inflows after 2003; these inflows collapsed in 2009 (section 1). What were the drivers of gross capital inflow dynamics into the CESEE countries? Chart 3 and table A1 show the relative variance contribution of the extracted factors:

In all countries under consideration, the lion's share of the variance of gross capital inflows (FDI, portfolio investment and other investment) in the period between 1994 and 2014[8] is explained by the contribution of the three extracted global factor components together with one regional capital factor, ranging – on average across time – from 70% in the Czech Republic to about 85% in Bulgaria, Hungary, Latvia and Romania. Recall that the global factors comprise (1) a real business cycle component (capturing four global macroeconomic factors), (2) a financial cycle component (capturing five global financial factors), and (3) one global capital factor (see section 2).

Disentangling the real business component from the financial cycle component allows us to better understand whether capital inflows are driven more, for instance, by global economic growth, or whether they are related more to a global deleveraging shock, to give another example. It is striking that the global financial cycle has the strongest explanatory power. On average, across time and across the CESEE-12, it explains more than 40% of the variance of gross capital inflows (ranging from about 35% in the Czech Republic to more than 60% in Estonia),

[8] *For Poland, no quarterly data on capital flows are available for the period prior to 2000.*

followed by the global real business cycle component with an average explanatory power of 22% (ranging from 12% in Estonia to about 30% in Bulgaria, the Czech Republic and Turkey).

The global capital factor measures co-movements of capital inflow variables across all 39 countries and illustrates their relevance for capital flow dynamics in the respective country. The contribution of the global capital factor to the variance of capital flow volatility in all CESEE countries turns out to be quite small (just under 6% on average). The regional capital factor that measures the co-movement of capital inflows into CESEE and their contribution to capital flow volatility in the respective CESEE countries is apparently more important (with an average explanatory power of 10%) than the global capital factor in most countries (except in Poland and Turkey), suggesting that these countries are apparently more strongly linked to a regional capital flow cycle than to a global one.

Some differences across countries and over time stand out:

Looking at the time-varying pattern, the countries that exhibited the largest gross capital inflows relative to GDP in the pre-crisis boom period between 2003 and 2008 (the Baltic countries, Bulgaria, Hungary, Romania, Russia and Slovenia) saw a temporary and to some extent significant decline of the capital flow variance share explained by global factors during this period and, as a mirror image, a rise in the idiosyncratic factor. Recall that the idiosyncratic factor characterizes everything that cannot be explained by the extracted factors, i.e. country-specific macroeconomic and/or financial factors, but also other global and regional factors not explicitly accounted for in our model. This means that the extraordinary capital influx during the 2003 to 2008 period was too excessive just to be predominantly explained by the previous constant and high share of common global push factors included in the model. Apparently, the capital inflows were increasingly driven during this period by country-specific phenomena or by factors situated outside the region, such as the strategic positioning of foreign banks in CESEE. Note that in the literature, cross-border banking flows channeling funds to emerging markets are considered a decisive global "supply push" factor (Bruno and Shin, 2015), contrary to the local "demand pull" factors, i.e. factors that are specific to countries themselves. How does this explanation square with our empirical findings? The fact that the explanatory power of the idiosyncratic factor increases temporarily (mostly at the expense of the global financial cycle) during the capital inflow boom between 2003 and 2008 does not mean that "supply push" factors declined. We interpret this result as follows: In the respective countries, capital inflows far exceeded the level explainable by the global common factors, in particular the global financial factor, leading to a relative rise in the unexplained part of the model. According to Eller et al. (2016b), this phenomenon was also observable in the countries in advanced Europe that accumulated sizeable gross capital inflows between 2003 and 2008, but not in other regions of the world.

After the retrenchment of gross capital inflows in 2009, the explanatory power of the global factors picks up again and reaches unprecedented heights in several countries where capital inflows were strong from 2003 to 2008. To give an example, the variance share explained by reasons other than idiosyncratic factors rises from an average of 67% in the period from 2001 to 2008 to 94% in the period from 2009 to 2014 in Romania, or from 66% to 86% in Lithuania (see table A1). The increase in the explanatory power of the global factors was more muted and grad-

ual in the case of the Czech Republic, Poland, Slovakia and Turkey. In particular, the variance share explained by global financial factors rose after the global financial crisis hit, widening from a CESEE-12 average of 40% (2001 to 2008) to 46% (2009 to 2014). This may well reflect the global deleveraging shock and the associated retrenchment in gross capital inflows as well as the impact of monetary accommodation in advanced economies that might have partly offset capital flow reversals. Global financial factors may also reflect the impact of the Fed's tapering announcement in May 2013, which affected above all Poland and Turkey, and, to a much smaller degree, the other CESEE countries (see Eller et al., 2016a).

Given that different types of gross capital inflows had different dynamics before and after the global financial crisis (recall section 1), we summarize in table A1 the variance decomposition results for each country and for each capital flow type (FDI, portfolio investment and other investment) across three distinct subperiods. While most of the previously discussed results for the total capital inflows variable also hold for its components, a few differences stand out. First, global factors are considerably less important in explaining the variance of portfolio investment inflows (on average, across time and across the CESEE-12, about 70%) than that of FDI (82%) or other investment inflows (80%). Second, the variance share explained by global factors stays rather constant or strengthens only gradually over time in the case of portfolio investment inflows, whereas for FDI and other investment inflows, we can confirm that the global factors lose remarkable importance during the pre-crisis boom period but gain substantial significance in the post-crisis period. Third, global financial factors are less important in explaining the volatility of portfolio investment inflows than that of FDI and other investment inflows (with an average share for the whole sample of 32% in the case of portfolio investment compared with nearly 40% in the case of the two other investment categories). Global macroeconomic factors, in contrast, show a fairly similar explanatory power across all the three types of capital inflows. Overall, these disaggregated results suggest that global factors are comparatively less important for portfolio investment inflows in CESEE (with the exception of the pre-crisis boom period). In other words, country-specific particularities detached from global (financial) cycles have still considerable weight for international portfolio investors, reflecting for instance their willingness to quickly shift money to those countries which offer higher yields.

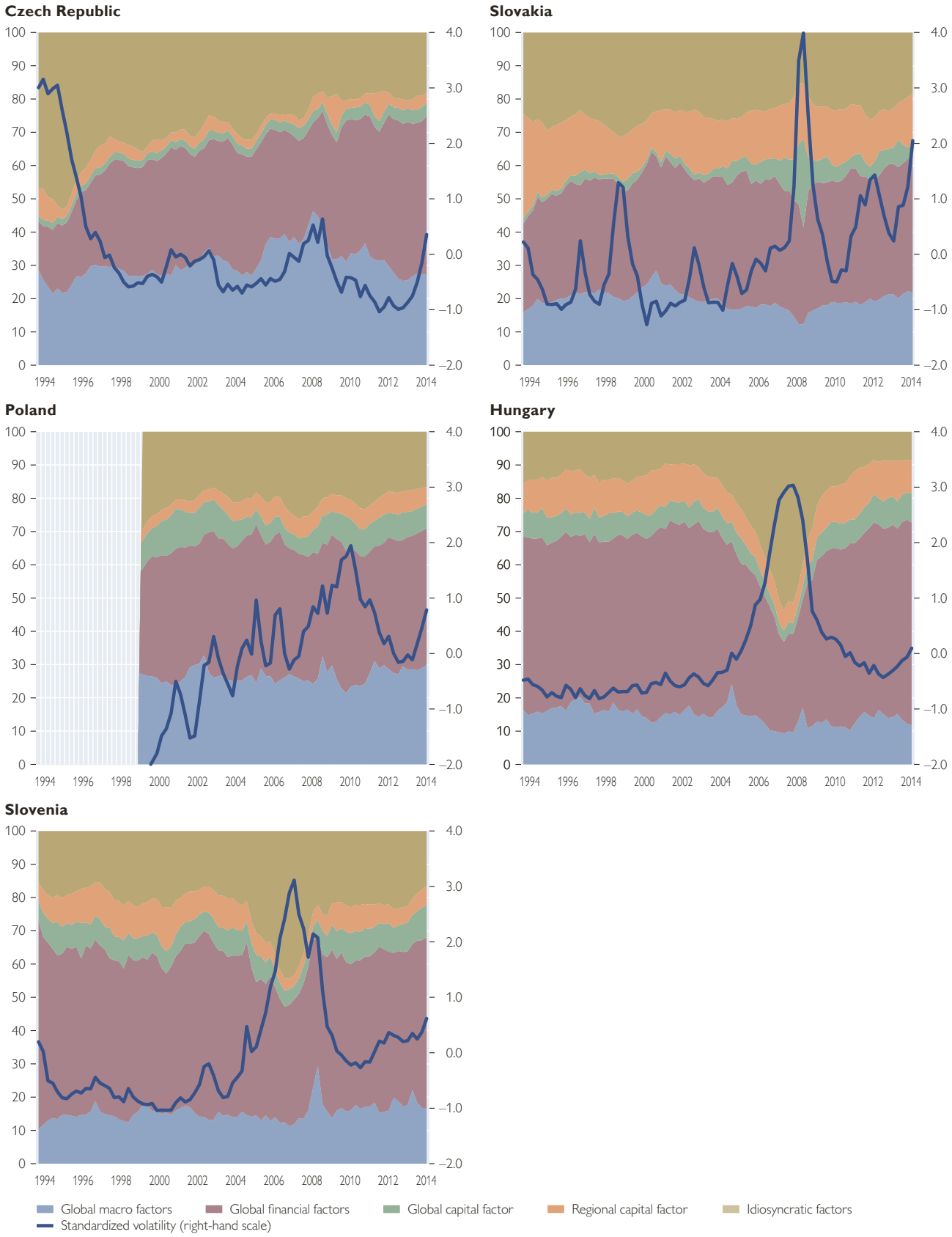
Finally, to shed some light on the reasons for the cross-country heterogeneity observed in our variance decomposition results, we investigate to which extent the share of the variance of total capital inflows explained by common global and regional factors is related to country-specific macrofinancial variables (in the spirit of Kose et al., 2003, or Förster et al., 2014).[9] One could, for instance, argue that more flexible exchange rates, higher foreign exchange reserves, lower public or external debt or deeper financial markets with more capacity to absorb capital inflows reduce the share of variance of capital inflows that is explained by common global factors, as suggested by recent empirical evidence provided by the IMF (2016) for a large sample of worldwide emerging markets. Or, to put this view

[9] *Obviously, such an analysis raises the question of variable selection, i.e. which macrofinancial fundamentals are the most important ones in the light of economic theory and/or existing empirical evidence. A respective multivariate panel or cross-section analysis with a large-scale set of explanatory variables would be beyond the scope of the present paper. We thus leave it for future research.*

Chart 3

Variance decomposition of gross capital inflows over time

%



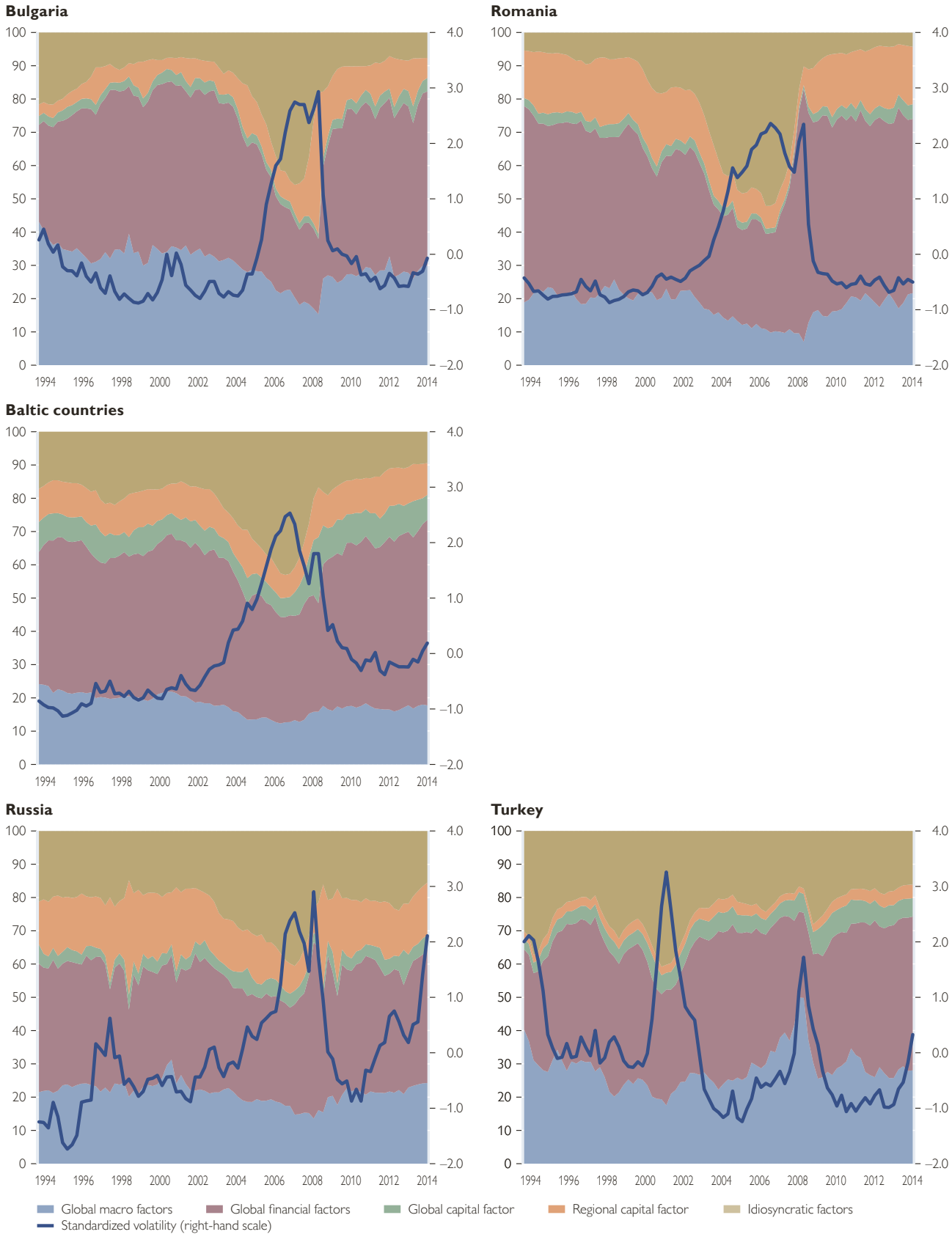
Source: Authors' estimates.

Note: Variables whose variance is explained: incurrence less repayment of totaled direct, portfolio and other investment liabilities as a share of GDP, cumulative four-quarter sums. Results for Poland are based on estimations for the period from Q1 00 to Q4 14, given missing data for Poland in the 1990s.

Chart 3 (continued)

Variance decomposition of gross capital inflows over time

%



Source: Authors' estimates.

Note: Variables whose variance is explained: incurrence less repayment of totaled direct, portfolio and other investment liabilities as a share of GDP, cumulative four-quarter sums. Unweighted cross-country averages are shown for the three Baltic countries.

differently, the sounder domestic macrofinancial fundamentals are, the less susceptible economies are to fluctuations in global business or global financial cycles. However, for our sample we do not find any considerable correlation between the variance share explained by nonidiosyncratic factors on the one hand and the level of foreign exchange reserves, the degree of exchange rate and output volatility, the levels of public and external debt and the level of financial sector depth on the other hand (based on unconditional bivariate correlations, which are available from the authors upon request). If anything, there is some indication that a higher level of foreign exchange reserves is associated with a lower capital flow variance share explained by global financial factors. We also examined these correlations across different subperiods, which does not, however, render more systematic relationships. This preliminary evidence suggests that focusing only on sound macrofinancial fundamentals is apparently not enough to shelter CESEE economies from spillovers of global cyclical fluctuations.

5 Policy implications

Our results highlight the important role of global (financial) factors determining boom and bust cycles of gross capital flows into CESEE. A large share of global push factors does not necessarily underpin the need to directly or indirectly control capital flows. Recommendations to restrict the capital account are justified only after carefully weighing potential benefits,[10] such as improved allocative efficiency and better risk sharing against the costs of financial openness. These costs involve financial instability as well as a loss of the room for maneuver in autonomous monetary policy, also for economies with flexible exchange rate regimes. A concise cost-benefit analysis is beyond the scope of the paper. But it has to be acknowledged that capital flows into CESEE that largely took the form of FDI and cross-border bank loans have undoubtedly facilitated the catching-up process. At the same time, capital inflows were not effectively absorbed and sufficiently channeled toward productive investment. Very often, they boosted house price booms and a credit cycle – in many countries denominated in foreign currency – that collapsed in the course of the crisis.

In principle, the following options are available to weaken potential spillovers from the global financial cycle (Rey, 2015): (1) One could impose direct capital controls. With a few exemptions, such restrictions are prohibited by EU law, however.[11] (2) Another policy option would be to have the central banks of large countries internalize the spillover effects of their monetary policies onto other countries. International coordination in this field is discouraged because it would involve complex tradeoffs when conflicts arise with the domestic mandates of large countries' central banks. Since at least for the EU countries, the first option is ruled out and at the current juncture, the second option is not implementable, negative spillover effects could be directly addressed by (3) macroprudential mea-

[10] *Some papers point toward the existence of threshold effects: Financial openness is beneficial only after a country has reached a certain level of institutional or financial sector development (Bekaert et al., 2013; Kose et al., 2011).*

[11] *The provisions of the Treaty on the Functioning of the European Union (TFEU) allow capital movements to be restricted only under specific conditions, including national measures to prevent infringements of national laws, regulations on taxation and prudential supervision of financial institutions, and measures justified on grounds of public policy or public security (Article 65(1)(b)). However, these measures must not represent a means of arbitrary discrimination or a distinguished restriction in the sense of Art. 65(3) TFEU.*

sures that, above all, limit excessive credit growth and related financial stability risks. Available instruments include countercyclical capital buffers; leverage, loan-to-value (LTV), debt-to-income (DTI) and debt service-to-income (DSTI) ratios; restrictions on foreign currency lending; and levies on noncore bank (foreign exchange) liabilities that represent wholesale funding. Some of these tools overlap with capital flow management instruments, e.g. a levy on bank foreign exchange inflows that is meant to limit capital inflows as well as to reduce systemic financial risk (IMF, 2012). Some CESEE countries already implemented a few of these macroprudential tools before the 2008/09 crisis to tame skyrocketing private sector credit growth.[12] A combination of different macroprudential instruments might be necessary to prevent circumvention. Moreover, reciprocity agreements with capital flow-sending countries are crucial to prevent such measures from being undermined by cross-border lending. After all, preventing excessive cross-border lending is also in the macrofinancial interest of source countries. Macroprudential measures can be viable substitutes for capital controls and for better international monetary policy coordination, which seems to be out of reach at the current juncture. Making the domestic financial system more resilient to a reversal of capital flows via capital and liquidity regulation could complement macroprudential regulation. It follows that macroprudential policies that may, in some cases, overlap with capital flow management measures probably provide the most promising tools to avoid boom-bust cycles in capital flows, dampening excessive inflows during good times and, at least to some extent, containing outflows during crises.

6 Conclusions

Before the global financial crisis hit, the CESEE countries attracted sizeable gross capital inflows. At a global scale, only advanced European countries received higher cumulative inflows in the period from 2003 to 2008. However, cumulative net capital inflows into the CESEE countries as a percentage of GDP were by far the highest worldwide and outstripped the flows that poured into East Asia before the Asian crisis hit in the late 1990s. After a sharp capital flow reversal in 2009, only a few CESEE countries received sizeable gross capital inflows, albeit short-lived ones. What was driving this extraordinary boom-bust episode in capital inflows? Were inflows related to global, regional or country-specific factors? Were there differences across countries and categories of capital flows?

We make use of a time-varying parameter factor model with stochastic volatility that allows us to disentangle five different determining factors: a global real business component, a global financial component, a global capital, a regional capital as well as an idiosyncratic component. The latter captures country-specific or other elements that are not part of the model. Most strikingly, on average, the global factors, particularly the global financial factors, have the strongest power in explaining volatility in gross capital inflows. This holds for all CESEE countries.

Differences emerge with respect to capital flow dynamics across time and their explanatory factors. The years of the run-up to the crisis are usually seen as the period of the Great Leveraging, during which abundant liquidity was transmitted across the globe, predominantly via bank lending. Between 2003 and 2008, one

[12] *Gersl and Jasova (2014) found that during the 2003 to 2007 period, provisioning rules and limits on LTV and/or DSTI ratios contributed to decreasing credit growth in several CESEE economies.*

group of countries (the Baltic countries, Bulgaria, Hungary, Romania, Russia and Slovenia) saw sizeable gross (and net) capital inflows and a sharp retrenchment of capital flows when the crisis hit. In the other CESEE-12 countries, the boom-bust cycle was also strong but less pronounced. We show that during this period of excessive gross capital inflows that consisted to a large extent of cross-border loans and FDI, the idiosyncratic factor increased temporarily at the expense of the global factors in the first group of countries. Thus, the extraordinary capital influx from 2003 to 2008 was apparently too excessive in these countries to be predominantly explained just by the previous constant and high share of common global factors accounted for in the model. One reason for this increasing unexplained part of the variance could be the strategic positioning of Western banks in the CESEE. These banks' investments and funding activities between 2003 and 2008 were so sizeable that they can only partly be explained by common global (financial) factors. Note, however, that during this period, the global factors still explain more than half of the variance of gross capital inflows. Interestingly, after the crisis hit, the global factors rise again – reaching unprecedented levels in some countries.

These findings have a bearing on the ongoing debate on how to deal with volatile capital flows. To the extent that capital flow volatility is mainly driven by global factors, instruments that limit potential negative spillovers from global cyclical fluctuations and thus smooth the domestic capital flow cycle are warranted. They certainly involve, above all, better international policy coordination and macroprudential measures. More research is thus called for on the potential of different types of macroprudential measures to shield countries from globally determined capital flow volatility.

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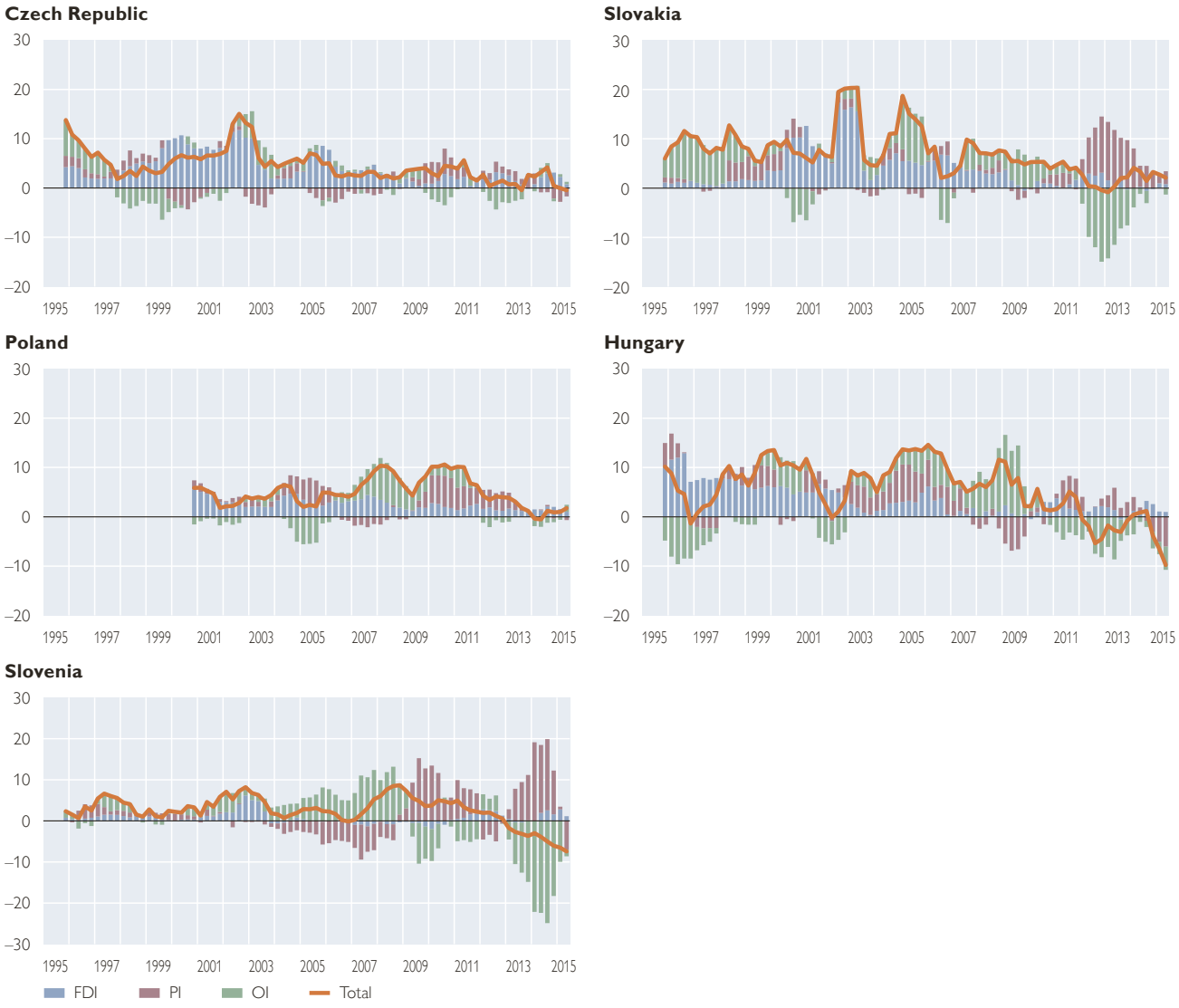
Annex

Chart A1

Net capital flows over time

Net FDI, PI and OI liabilities (net incurrence of liabilities less net acquisition of assets)

% of GDP, cumulative four-quarter moving sums



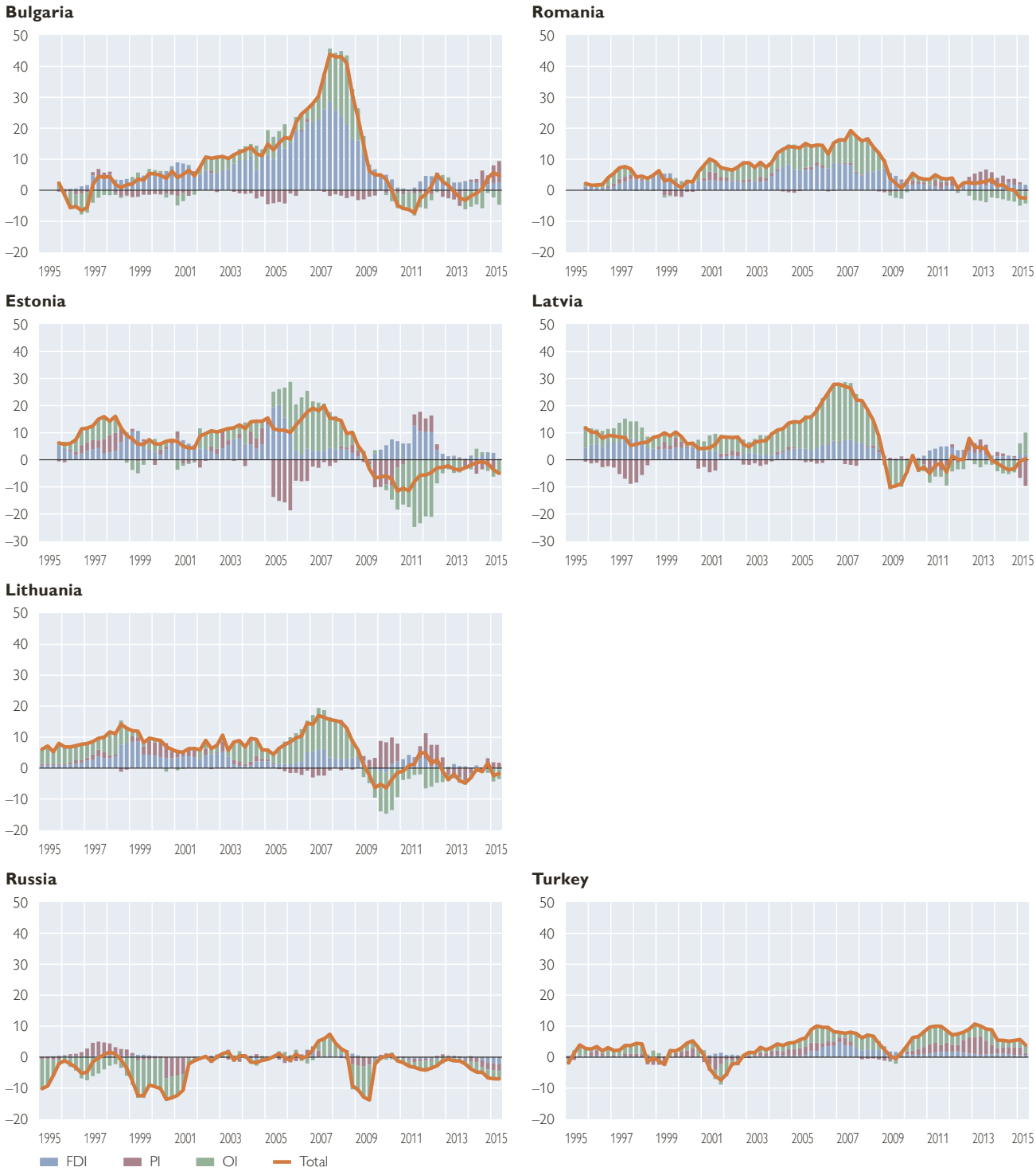
Source: IMF, Eurostat.

Chart A1 (continued)

Net capital flows over time

Net FDI, PI and OI liabilities (net incurrence of liabilities less net acquisition of assets)

% of GDP, cumulative four-quarter moving sums



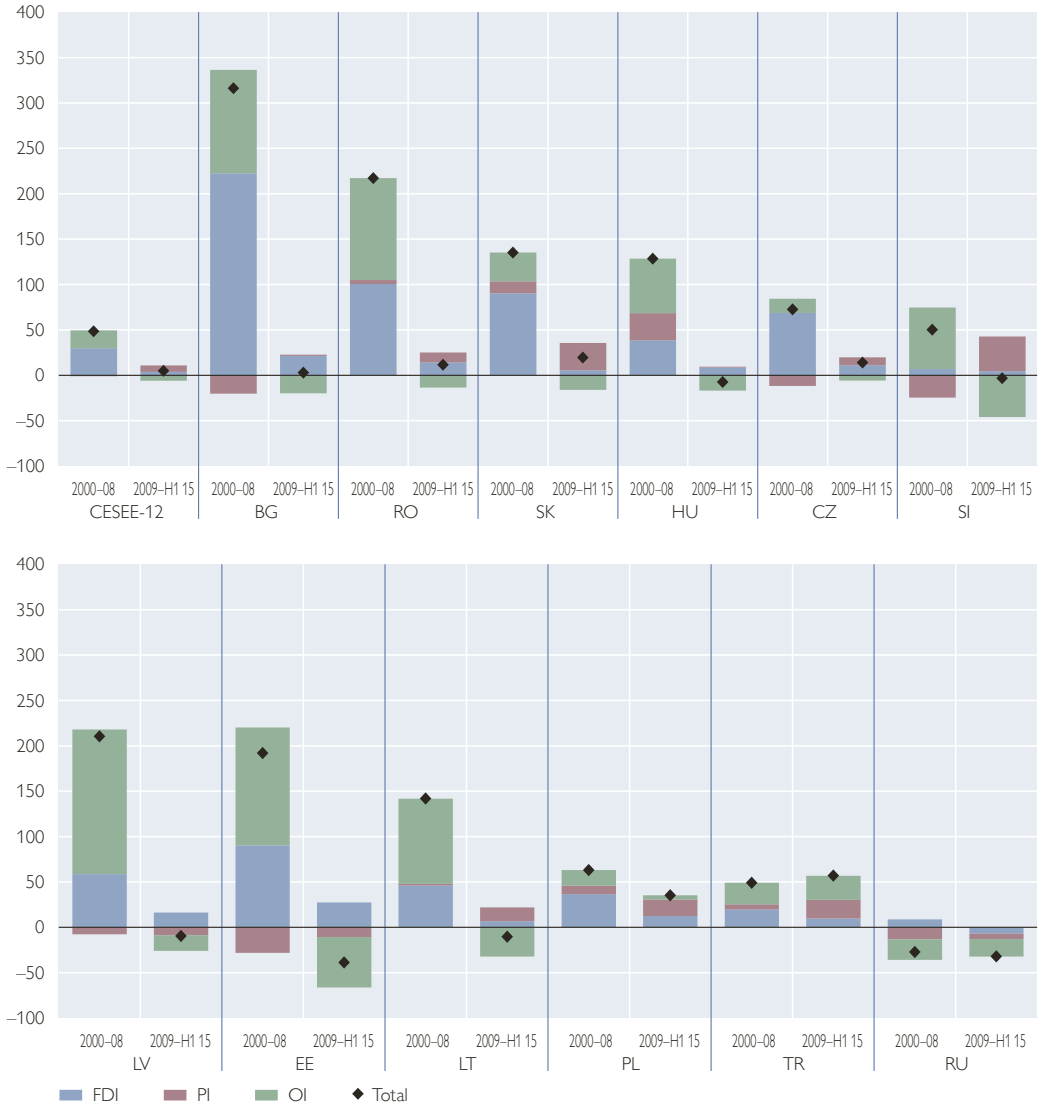
Source: IMF, Eurostat.

Chart A2

Net capital flows: 2000–08 versus 2009–15

Net FDI, PI and OI liabilities (net incurrence of liabilities less net acquisition of assets)

% of GDP in the first year of observation (2000 and 2009, respectively)



Source: IMF, Eurostat.

Table A1

Variance shares of gross capital inflows explained by different factors – country breakdown

	1994–2000					2001–2008					2009–2014					1994–2014				
	M	F	C	R	idio	M	F	C	R	idio	M	F	C	R	idio	M	F	C	R	idio
Total gross capital inflows (FDI+PI+OI)																				
CZ	26.8	27.0	2.1	4.6	39.5	33.1	33.7	2.7	2.8	27.6	31.6	41.4	3.5	4.3	19.1	30.5	34.0	2.8	3.9	28.7
SK	20.5	32.7	1.9	17.7	27.2	19.4	37.3	4.6	15.2	23.6	19.0	37.8	6.5	14.8	22.0	19.6	35.9	4.3	15.9	24.3
PL						26.3	40.1	7.7	4.9	21.0	27.2	39.3	8.1	5.9	19.5	26.8	39.7	7.9	5.4	20.2
HU	16.6	51.5	7.4	10.8	13.7	14.3	47.0	5.6	9.3	23.8	13.2	53.3	7.5	10.9	15.0	14.7	50.6	6.8	10.3	17.5
SI	14.6	49.0	7.4	9.6	19.4	14.6	45.3	6.3	7.0	26.8	17.6	46.2	8.1	6.3	21.8	15.6	46.9	7.3	7.6	22.6
BG	34.6	43.6	2.8	5.5	13.5	28.4	38.8	2.7	9.1	20.9	27.2	46.7	3.4	12.5	10.2	30.1	43.0	3.0	9.0	14.9
RO	21.4	49.8	3.3	17.9	7.7	15.3	37.4	2.4	11.5	33.3	17.8	56.6	3.4	16.1	6.0	18.2	48.0	3.0	15.2	15.7
EE	14.9	61.1	3.6	3.0	17.3	10.8	56.2	2.0	5.2	25.9	10.6	66.4	1.7	6.3	15.0	12.1	61.2	2.5	4.8	19.4
LV	27.8	35.7	11.9	15.0	9.6	21.9	33.7	9.1	14.3	21.0	22.7	40.9	10.7	14.5	11.2	24.1	36.7	10.6	14.6	14.0
LT	20.4	33.9	7.3	12.4	26.0	15.9	29.7	10.1	10.0	34.3	17.9	39.7	16.7	12.0	13.8	18.1	34.4	11.3	11.5	24.7
RU	22.9	35.8	3.5	18.0	19.7	20.4	34.4	4.2	13.6	27.3	21.2	37.9	4.5	16.1	20.3	21.5	36.0	4.1	15.9	22.4
TR	28.3	37.9	4.1	2.9	26.9	27.9	38.3	5.4	3.0	25.4	29.7	40.7	6.7	3.4	19.5	28.6	39.0	5.4	3.1	23.9
CESEE	22.6	41.6	5.0	10.7	20.1	20.7	39.3	5.2	8.8	25.9	21.3	45.6	6.7	10.3	16.1	21.5	42.2	5.7	9.9	20.7
Gross direct investment inflows (FDI)																				
CZ	32.5	33.2	5.3	6.8	22.2	27.9	35.8	5.0	2.8	28.4	31.1	47.3	7.0	2.3	12.3	30.5	38.8	5.8	4.0	21.0
SK	20.9	41.0	2.5	24.6	11.0	13.3	32.3	5.7	14.5	34.2	15.9	44.8	9.7	17.4	12.2	16.7	39.4	5.9	18.8	19.2
PL						16.9	20.6	8.8	39.4	14.3	17.7	22.0	9.9	39.0	11.4	17.3	21.3	9.4	39.2	12.9
HU	21.0	45.5	9.8	11.8	11.9	17.0	48.2	10.7	7.9	16.2	14.8	50.8	9.9	10.8	13.7	17.6	48.2	10.2	10.1	13.9
SI	13.6	35.0	14.6	8.2	28.6	14.5	34.5	20.4	6.5	24.1	14.5	26.1	31.8	5.2	22.4	14.2	31.9	22.2	6.7	25.0
BG	39.4	45.7	5.3	5.0	4.5	29.5	34.6	5.1	5.4	25.4	31.5	44.1	8.0	10.9	5.5	33.5	41.5	6.1	7.1	11.8
RO	22.8	43.7	8.7	13.9	10.8	17.8	40.1	7.2	6.7	28.1	19.5	55.9	9.4	9.0	6.3	20.0	46.6	8.4	9.9	15.1
EE	17.9	54.4	6.6	3.6	17.6	11.4	60.6	2.5	4.3	21.1	11.7	63.1	2.4	7.8	15.0	13.7	59.3	3.8	5.2	17.9
LV	26.1	27.5	7.8	14.8	23.8	25.6	30.6	8.6	16.5	18.8	24.0	32.7	9.5	21.2	12.6	25.2	30.3	8.6	17.5	18.4
LT	15.1	33.2	5.9	22.8	22.9	11.5	30.0	10.4	17.4	30.7	12.4	36.5	16.0	19.9	15.3	13.0	33.2	10.8	20.0	22.9
RU	26.0	27.7	5.5	20.7	20.2	22.5	28.1	7.7	17.7	23.9	21.7	29.3	6.4	21.8	20.7	23.4	28.4	6.5	20.1	21.6
TR	28.9	43.3	4.0	3.8	19.9	27.8	41.7	5.2	4.2	21.1	20.2	64.4	4.4	2.9	8.1	25.6	49.8	4.5	3.6	16.4
CESEE	24.0	39.1	6.9	12.4	17.6	19.6	36.4	8.1	12.0	23.9	19.6	43.1	10.4	14.0	12.9	21.1	39.5	8.5	12.8	18.1
Gross portfolio investment inflows (PI)																				
CZ	28.1	26.0	4.3	6.2	35.3	28.1	29.0	4.2	4.4	34.3	25.8	34.2	3.9	2.4	33.8	27.3	29.7	4.1	4.4	34.5
SK	18.5	26.8	2.8	18.6	33.4	15.6	27.4	4.0	23.0	30.0	16.0	32.8	5.1	20.1	26.0	16.7	29.0	4.0	20.6	29.8
PL						29.2	41.7	10.3	5.5	13.2	29.0	43.2	9.0	5.9	12.9	29.1	42.4	9.7	5.7	13.1
HU	17.2	36.8	6.0	6.1	34.0	16.1	40.6	4.1	6.0	33.1	17.7	42.4	4.6	7.1	28.2	17.0	39.9	4.9	6.4	31.8
SI	13.7	30.3	4.6	7.3	44.1	16.1	29.1	4.2	7.1	43.4	20.1	28.1	5.7	7.1	39.0	16.6	29.2	4.8	7.2	42.2
BG	26.5	20.6	4.2	3.9	44.8	23.5	21.0	3.6	8.2	43.7	23.8	24.7	4.5	8.4	38.6	24.6	22.1	4.1	6.8	42.4
RO	17.2	29.6	3.9	11.9	37.5	17.0	35.7	3.9	9.5	33.9	18.2	37.6	3.8	10.9	29.6	17.4	34.3	3.8	10.8	33.7
EE	20.4	46.8	5.5	5.0	22.3	18.3	42.8	3.4	8.3	27.2	17.9	53.0	2.3	10.7	16.1	18.9	47.5	3.7	8.0	21.9
LV	22.2	20.1	6.5	5.7	45.5	22.8	20.8	7.2	7.1	42.0	21.3	27.2	7.1	7.5	37.0	22.1	22.7	6.9	6.8	41.5
LT	22.9	30.6	8.2	13.9	24.4	18.8	30.1	15.1	15.8	20.3	18.8	31.8	14.7	12.1	22.6	20.2	30.8	12.7	13.9	22.4
RU	24.2	30.9	4.5	9.7	30.7	24.3	35.1	4.8	9.4	26.3	25.9	40.2	5.2	6.7	22.0	24.8	35.4	4.8	8.6	26.4
TR	33.4	27.2	7.5	3.2	28.7	35.0	27.2	6.8	3.3	27.6	33.9	30.8	7.0	3.3	24.9	34.1	28.4	7.1	3.3	27.1
CESEE	22.2	29.6	5.3	8.3	34.6	22.1	31.7	6.0	9.0	31.3	22.4	35.5	6.1	8.5	27.5	22.2	32.3	5.8	8.6	31.1
Gross other investment inflows (OI)																				
CZ	36.4	29.8	3.8	3.6	26.4	45.4	35.9	4.1	2.2	12.3	38.3	42.9	5.0	1.6	12.3	40.0	36.2	4.3	2.5	17.0
SK	17.1	28.0	1.7	31.2	22.0	15.0	28.2	4.2	33.6	19.0	14.3	31.8	5.8	29.6	18.5	15.4	29.3	3.9	31.5	19.8
PL						30.4	40.5	11.5	4.9	12.7	29.9	41.2	11.9	5.7	11.2	30.1	40.9	11.7	5.3	12.0
HU	23.8	47.2	7.5	6.8	14.7	16.6	42.0	5.8	5.7	29.9	22.1	48.5	7.7	7.1	14.6	20.8	45.9	7.0	6.5	19.7
SI	11.3	45.6	6.0	5.6	31.5	12.4	38.8	5.4	4.2	39.2	17.2	44.2	8.5	4.6	25.5	13.6	42.9	6.6	4.8	32.0
BG	35.7	41.6	3.0	4.0	15.7	30.3	38.3	3.1	7.1	21.2	31.5	43.6	3.7	9.5	11.8	32.5	41.2	3.3	6.9	16.2
RO	35.9	36.7	2.3	8.9	16.2	20.4	32.0	1.9	5.9	39.8	27.7	48.5	5.2	7.8	10.8	28.0	39.1	3.2	7.5	22.3
EE	15.9	58.5	4.1	4.2	17.2	12.0	55.8	2.3	5.9	23.9	13.3	61.9	2.1	4.9	17.7	13.8	58.8	2.8	5.0	19.6
LV	25.0	26.6	8.8	27.4	12.2	21.4	26.0	7.6	17.0	27.9	21.9	37.0	9.5	24.2	7.4	22.8	29.9	8.6	22.9	15.8
LT	21.3	35.4	7.7	10.7	24.8	16.7	31.6	11.2	9.3	31.2	15.5	38.6	16.3	17.7	11.9	17.8	35.2	11.7	12.6	22.7
RU	22.7	35.4	9.0	16.1	16.8	19.0	34.7	8.1	11.7	26.5	20.6	39.6	11.8	11.0	17.0	20.7	36.6	9.7	12.9	20.1
TR	28.5	45.2	4.5	3.0	18.8	29.8	40.1	5.0	2.7	22.4	28.9	46.6	6.2	2.7	15.6	29.1	44.0	5.2	2.8	18.9
CESEE	24.9	39.1	5.3	11.1	19.7	22.4	37.0	5.9	9.2	25.5	23.4	43.7	7.8	10.5	14.5	23.6	39.9	6.3	10.3	19.9

Source: Authors' estimates.

Note: This table presents the variance shares of gross capital inflows explained by different factors for all countries in our sample averaged across three distinct time periods. Results are based on 10,000 posterior draws. Variables whose variance is explained: incurrence less repayment of financial liabilities as a share of GDP, cumulative four-quarter sums. "M, F, C, R, idio" represent the variance share explained by global macro factors, global financial factors, the global capital factor, the regional capital factor and idiosyncratic factors, respectively. Results for Poland are based on estimations for the period from Q1 00 to Q4 14 only, given missing data for Poland in the 1990s. "CESEE" shows unweighted cross-country averages over the 11 or 12 countries included in the respective samples.

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.

The minimum requirement for own funds and eligible liabilities (MREL) – a first assessment for Austrian banks and selected subsidiaries in CESEE EU Member States

Valentina Metz, Konrad Richter, Philipp Weiss, Bernhard Rottensteiner, Daniel Unterkofler, Johannes Langthaler, Patrick Pechmann

The minimum requirement for own funds and eligible liabilities (MREL) is a key element in resolution planning. It is particularly important for the effective application of the bail-in resolution tool which was introduced with the Bank Recovery and Resolution Directive (BRRD) in 2014 and implemented in Austria with the Bank Recovery and Resolution Act (Bundesgesetz über die Sanierung und Abwicklung von Banken – BaSAG) in 2015. The purpose of the MREL is to ensure that banks have an adequate loss absorption and recapitalization capacity in case of resolution. With a narrow time schedule for the implementation of this new requirement, it is important to gain an understanding of the current situation for Austrian institutions and their EU subsidiaries in Central, Eastern and Southeastern Europe (CESEE). Therefore, the Austrian national resolution authority, i.e. the Financial Market Authority (FMA), together with the Oesterreichische Nationalbank, conducted a survey among a selected sample of Austrian banks with the aim of assessing their MREL-eligible instruments and liabilities. The surveyed institutions were asked to provide data on the composition of their own funds and liabilities as per year-end 2014. The survey was designed to elicit answers to the most important questions arising from the MREL implementation: How high is the volume of MREL-eligible liabilities and instruments available in the Austrian banking sector? Which amount is available for bail-in in case of resolution? What is the composition of the existing MREL-eligible stock? Are there differences between different types of institutions? Is there enough MREL-eligible stock available or are there currently any shortfalls? The supervision and in particular the resolution authorities will need this information when setting the MREL in order to assess impacts on major banking groups, to increase market transparency and to contribute to a stable regulatory environment in general.

To be published in *Financial Stability Report 31*.

Event wrap-ups and miscellaneous

EBRD Transition Report 2015-16: Rebalancing Finance

Compiled by
Antje Hildebrandt

On January 28, 2016, the Oesterreichische Nationalbank (OeNB) welcomed Ralph de Haas, Director of Research at the European Bank for Reconstruction and Development (EBRD), to present the main findings of the latest EBRD Transition Report. The event was opened by Doris Ritzberger-Grünwald, Director of Economic Analysis and Research at the OeNB.

In her welcome address, Ritzberger-Grünwald stated that this year's report is the first EBRD Transition Report in nearly a decade to focus on the financial sector, a topic of utmost importance for countries in transition. She explained that research has indeed established a positive nexus between financial deepening and economic growth but that more recent debates have questioned the sustainability of debt-financed growth given the deleveraging process that began after the onset of the crisis. Against this background, the report is highly relevant according to Ritzberger-Grünwald, as it provides ideas on how to restructure and develop financial systems in order to make them more resilient in the future. It also explores ways to utilize financial systems to overcome the large investment gap in the EBRD region and to deepen domestic capital markets. With respect to the latter, she pointed out that the formation of local capital markets is a long-term project that requires appropriate institutions. Even in countries with well-functioning institutions people often prefer to hold their cash in euro, as observable in many countries of Central, Eastern and Southeastern Europe (CESEE).

After the introductory remarks, Ralph de Haas, the EBRD's Director of Research, outlined the most important messages of the EBRD Transition Report 2015-16. Above all, he highlighted that the economies where the EBRD operates (EBRD region) are currently facing the challenge of rebalancing and strengthening their financial sectors to boost economic growth and innovation.

Part 1: large investment gaps in the EBRD region

One of the key topics of the report is the emergence of an investment gap in the EBRD region. Prior to the crisis, convergence was largely driven by economic integration, high FDI and other capital inflows. With the onset of the crisis, external finance stopped being the motor of convergence in the EBRD region. De Haas pointed out that limited fresh debt funding has led to large post-crisis investment gaps in the region. Investments would need to be scaled up by USD 75 billion a year to bring investment back to the levels expected of economies at this stage of development. He also showed that the stock of outstanding debt as a percentage of GDP is still rising at close to pre-crisis speed. Also, the composition of this debt is suboptimal: Too much domestic debt is still denominated in foreign currency and the level of nonperforming loans (NPLs) is persistently high. Thus, there is the need for developing local-currency financial markets and for concerted action to reduce NPLs.

De Haas suggested that the countries need to find alternatives beyond debt funding in the medium term. More precisely, countries of the EBRD region should build stronger links with other advanced and emerging markets to use the potential of diversifying FDI inflows. This recommendation should be seen against the background that FDI inflows have been below their estimated potential since the crisis and that 60% of investments originate in EU-15 source countries.

Part 2: better access to finance for SMEs

According to de Haas, firm-level credit constraints have increased almost everywhere in the EBRD region, calling for a more resilient allocation of credit to firms, in particular SMEs. De Haas went on to explain that institutional improvements can have a powerful impact, in particular if credit registries and collateral regimes function well. Institutional aspects aside, credit is more likely to flow to SMEs where application procedures are appropriately streamlined and where relationship lending is more prevalent than transaction-based lending. Looking at the liability side of the banking system, de Haas called for more diverse funding sources.

Part 3: private equity as an alternative funding source

In the last part of his presentation, de Haas argued that more emphasis should be put on private equity as an alternative funding source. Private equity, a financing instrument that has been rarely used in transition countries so far, is characterized by a medium-term investment horizon (between 3 to 5 years). De Haas showed that private equity can have a high impact on the economy. According to the EBRD, private equity investments on average add 30 jobs over a five-year period, increase labor productivity and profitability. As mentioned before, the unused potential of private equity is large. In order to make use of this potential and to attract more private equity, the protection of investors and the development of capital markets need to be improved.

Discussion

The discussant Harald Waiglein, Head of the Directorate-General Economic Policy and Financial Markets at the Austrian Federal Ministry of Finance, argued that many EU countries are facing challenges similar to those experienced by countries in the EBRD transition region: debt overhang, high levels of NPLs, scarce liquidity and credit-constrained SMEs. Waiglein offered two explanations for such malfunctioning of financial sectors: First, legacy issues (high levels of NPLs) and second, legal issues (e.g. related to intangible property rights and to deficits in insolvency law). Concerning financial constraints for SMEs, he drew attention to an initiative of the Austrian Federal Ministry of Finance and the World Bank which aims at improving accountability and regulatory oversight. Furthermore, the role of private equity was discussed, as private equity is not secure in times of crisis and can decline rapidly. In the course of the discussion, it was argued that this holds true for new lending or new investments. However, investors that do not withdraw – as it is also difficult to sell in crisis times – can be seen as a cross between FDI and private equity investors.

For further information, please read the *EBRD Transition Report 2015-16*.

78th East Jour Fixe: Ukraine – Progress of reforms and challenges ahead[1]

Compiled by Stephan Barisitz, Mariya Hake and Julia Wörz[2]

Ukraine, which has received extensive political and economic attention over the last two years, was the topic of the 78th East Jour Fixe held at the Oesterreichische Nationalbank on February 26, 2016. The country now stands at a delicate crossroads between a gathering recovery and further instability. On the plus side, Ukraine shows fragile economic stabilization tendencies on the heels of a profound depression. Also, some first reforms are beginning to bear fruit. Nevertheless, much remains to be done.

In her welcome address and introductory statement, *Doris Ritzberger-Grünwald,* Director of the OeNB's Economic Analysis and Research Department, pointed out that, in contrast to many other countries, the catching-up process has not worked well in Ukraine. Possible explanations include the following: First, Ukraine has not benefited from its position between the EU and Russia. Second, Ukraine's elites have not managed to build up a well-functioning state to underpin a prospering economy. On the other hand, a vigilant civil society has developed and there is a higher degree of political competition than in other states of the former Soviet Union. While in 2014 and early 2015, the country had plunged into a deep recession alongside a war in parts of eastern Ukraine, in the course of last year some degree of macroeconomic stabilization was reached through a painful adjustment process in the framework of an IMF program. Achievements include energy sector reforms and the restructuring of privately-held external sovereign debt. However, more recently, signs have emerged that the program is no longer running smoothly. To turn the tentative stabilization into a more sustainable recovery, it is necessary, in Ritzberger-Grünwald's view, to settle the conflict in the east, and for the authorities to further intensify their reform efforts.

The first session chaired by *Ritzberger-Grünwald,* was devoted to the current macroeconomic and fiscal situation in Ukraine and the policies exercised in the framework of the IMF's Extended Fund Facility (EFF). *Dmytro Sologub,* Deputy Governor of the National Bank of Ukraine (NBU), expressed his view on the challenges for monetary policy and financial stability amid a difficult political environment. Notwithstanding a recent current account adjustment and some tepid bottoming-out of the economy, Ukraine's deteriorated terms of trade along with persistent upward pressure on inflation remain major challenges. Therefore, the NBU is putting a lot of effort into reaching its 12% inflation target in 2016. By conducting foreign exchange interventions, the monetary authority aims at managing pass-through effects from the exchange rate to prices. Moreover, Sologub underlined improvements the NBU has already achieved regarding the supervisory, monetary policy and communications frameworks. However, he also pointed to the challenges the central bank has yet to tackle to overhaul the financial sector: e.g. establishing a resolution mechanism for nonperforming loans (NPLs), developing and implementing macroprudential supervision tools, and ensuring adequate capitalization of the banking system.

[1] *The 78th East Jour Fixe was coorganized by the Vienna Institute for International Economic Studies (wiiw) and Mathias Lahnsteiner, Oesterreichische Nationalbank, Foreign Research Division, mathias.lahnsteiner@oenb.at.*

[2] *Oesterreichische Nationalbank, Foreign Research Division, stephan.barisitz@oenb.at, mariya.hake@oenb.at, julia.woerz@oenb.at.*

Jerome Vacher, IMF Resident Representative in Ukraine, touched upon the major reform areas under the four-year IMF EFF program that is strongly focused on structural reforms. With respect to the overhaul of monetary policy, he outlined the importance of fostering the accumulation of reserves. Although fiscal imbalances have recently started to narrow and some reforms on both the revenue (e.g. tax administration) and expenditure (e.g. pension reform) sides have been initiated, Vacher stressed that especially putting public debt on a downward path remains a major challenge. In addition, for the energy sector, which is another key reform area, the EFF program aims at gradually raising gas and heating tariffs toward cost recovery. This should be accompanied, however, by enhanced and sustainable social assistance measures to mitigate the impact on the poorest segments of society. Overall, risks to the program are seen to be tilted to the downside and depend heavily on the authorities' commitment (policy slippage risk), the global environment and the further evolution of geopolitical and trade tensions. It is safe to assume that the return to growth will be slow at any rate.

Vasily Astrov, economist and country expert on Ukraine at the Vienna Institute for International Economic Studies (wiiw), commented on reforms in the fiscal area and referred to the exchange rate policy under the current IMF program. He pointed out that the importance of exchange rate stability in Ukraine is substantial – not least due to the direct impact it has on banking sector stability and the burden of public debt. On account of sizeable pass-through effects to inflation, which, among other things, have heavily eroded households' purchasing power, Astrov advocated a (further) buildup of foreign exchange reserves to allow for some degree of exchange rate fixation. As to fiscal imbalances, he pointed out that they were not at the root of the current crisis. Hence, he criticized demands placed on the Ukrainian authorities to take fiscal policy measures that have pro-cyclical effects and affect socially weak segments in society. Therefore, he proposed that an alternative set of fiscal adjustment reforms encompassing less austerity and more ambitious debt restructuring be pursued.

In the ensuing discussion, the panelists argued that a de-dollarization of the Ukrainian economy will remain a major challenge, although there have recently been some signs of a recovery of lending in local currency to the corporate sector. Furthermore, in order to reinvigorate economic growth, the importance of quickly reining in corruption, improving the business climate, stepping up deregulation and reforming state-owned enterprises was highlighted.

The second session, chaired by *Peter Backé,* Deputy Head of the OeNB's Foreign Research Division, revealed interesting details about the implementation of the Minsk II process, on the one hand, and the pervasive extent of, and current actions against, corruption in Ukraine, on the other. Ambassador *Martin Sajdik,* Special Representative of the OSCE Chairperson-in-Office in Ukraine, pointed to some recent improvements for the OSCE mission in the country: even though there are still problems of access to the Russian-Ukrainian border in the separatist territories, monitoring conditions have somewhat improved. With the daily human toll having declined significantly, some confidence has returned to the local population. He emphasized that the goal of the Minsk II Agreement, signed in February 2015, is the reunification of Ukraine. At the same time, he highlighted the weak legal status of this political document, given the lack of an official mandate from either Russia or Ukraine. Yet, the political authority of the "Normandy format"

powers Germany, France, Russia and Ukraine as well as the implicit support of the U.S.A. explain the relative success of its implementation. Sajdik concluded by listing recent achievements of the two working groups focusing on economic and political issues, including reconstruction of basic infrastructure, resumption of pension payments and clarification of open questions related to local elections in the rebel-held areas. The discussion dealt, inter alia, with reforms of Ukraine's constitution that have yet to be carried out (decentralization and autonomy amendments) and with the question whether the armed conflict has already led to a separation of nationalities. Ambassador Sajdik appealed to all the parties involved not to place too much emphasis on the issue of people's nationality, but rather to focus on the issue of internally displaced persons and refugees in neighboring countries.

The second part of the session was devoted to one of the most prevalent challenges for Ukraine: the fight against endemic corruption. *Olena Bilan,* Chief Economist at Dragon Capital (a Ukrainian investment bank) and member of the editorial board of VoxUkraine (a non-government organization), emphasized that everything needs reform in Ukraine, so the question is where to start. Yet, she also identified areas in which reforms have been successfully implemented recently, such as the banking sector (transparency has increased sharply), the energy sector (external dependency has been reduced), e-procurement (which had started as a pilot project and has reduced the cost of tenders by 80%) and the new patrol police. The most pressing challenges are to reform the judicial system and the prosecutor's office, to change the attitudes and competencies of civil servants and to tackle the issue of vested interests in state-owned enterprises. In the discussion, Bilan emphasized the supportive role of the IMF in achieving progress and the pivotal role of civil service reform.

Daria Kaleniuk, Executive Director of the Anti-Corruption Action Centre (AntAC, a Ukrainian civil society organization), stated that corruption is the rule rather than the exception in Ukraine. In light of the high degree of openness of the country's economy, the high and pervasive level of corruption is surprising. In order to break the vicious circle of corruption, she advised vesting the National Anti-Corruption Bureau established in 2015 with full power to investigate high-level persons. While many legal steps have been taken – e.g. an asset recovery agency has been created, progress has been achieved in raising the transparency of public procurement, a law on the funding of political parties has been passed –, the implementation of these steps is still lagging. Besides conviction and confiscation as a strategy to fight corruption, she also advocated the buildup of high reputational risks through open state registries and transparent public spending. Kaleniuk then presented a database of politically exposed persons in Ukraine. In the discussion, *Sologub* pointed to business areas in Ukraine where corruption is far less of a problem. He ascribed this success especially to EU influence, but also referred to the transparent recruiting process at the National Bank of Ukraine.

Session 3, which was chaired by *Michael Landesmann,* Director of Research of wiiw, was dedicated to two key economic factors for Ukraine: foreign trade and banking activities. *Amat Adarov,* wiiw Economist, and *Peter Havlik,* wiiw Senior Economist, highlighted Ukraine's position in external trade in the light of the country's Deep and Comprehensive Free Trade Area (DCFTA) agreement with the EU. While the European Union had been granting Ukraine autonomous

preferences for its exports from April 2014, the full implementation (including the opening of the Ukrainian market) of the DCFTA did not start before January 2016. On the other hand, Russia suspended Ukraine's free trade with the Commonwealth of Independent States Free Trade Area (CIS FTA) also in January 2016, and imposed a special restrictive transit regime for Ukrainian products moving via Russia to Kazakhstan. Moreover, Ukraine and Russia have imposed embargos on parts of each other's bilateral agricultural exports. These negative effects are exacerbated by the continuing geopolitical conflict in the east of Ukraine, both countries' recessions, and soft global commodity prices. As one of the results, Ukrainian exports of machinery and equipment to Russia have all but collapsed. Overall, Ukrainian exports have shrunk by 29% from 2013 to 2015, and Ukrainian imports have dropped 44%. Adarov and Havlik concluded that it will be very difficult for Ukraine to reorient exports to the EU without substantially upgrading its productive structures.

The final presentation, which dealt with Ukraine's struggling banking sector, was delivered by *Stephan Barisitz,* Senior Economist at the OeNB's Foreign Research Division. He pointed out that the Ukrainian economy's depression and the plunge of the hryvnia, as well as geopolitical tensions and political uncertainty, had in 2014 and 2015 contributed to pushing the banking sector deeply into the red. However, IMF and international support continue to provide a major policy anchor also for the banking sphere. Notwithstanding the collapse of lending, the government's and the NBU's macrostabilization policies have, at least for the time being, shored up depositors' expectations. The monetary authority has also successfully intervened to remove many smaller problematic credit institutions. And some larger players have been at least partly recapitalized. Among the main shortcomings or risks plaguing the sector are high credit risk (with NPLs accounting for at least a quarter of total loans and growing further), a persisting lack of profitability (the sector may only reach the break-even point in 2018), exchange rate risk, weak rule of law, and endemic corruption. Given this state of affairs, recapitalization needs will continue to be substantial, and the recovery of the banking sector will probably lag behind that of the real sector.

The discussion focused on the impact the continuing geopolitical conflict and frictions with Russia have been having on Ukrainian export capacities and the development of banking. *Havlik* pointed to Ukraine's efforts in reorienting its trade toward its western neighbors, which have to date been only modestly successful notwithstanding the substantial devaluation of the hryvnia. He arrived at the sober assessment that investment necessary to modernize export-oriented industrial structures may not be forthcoming as long as tensions in the region remain as high as they are. In reply to a question on the effect of Russia's annexation of Crimea and the war in Donbas on Ukrainian banks' performance, *Barisitz* conceded that these events, particularly the hostilities in the east, had indeed contributed to weakening outcomes.

Wrapping up the event, *Landesmann* pointed out that one could compare contemporary Ukraine with a hiker at the beginning of a very steep climb. Against this backdrop, it was important for the European Union "to keep Ukraine on the map in terms of EU policy" and to keep supporting reforms in this country.

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

	2009	2010	2011	2012	2013	2014	2015
	Annual real change in %						
Albania	3.4	3.7	2.5	1.4	1.1	2.0	2.6
Bosnia and Herzegovina	–2.9	0.8	0.9	–0.9	2.4	1.1	2.9
Kosovo	3.6	3.3	4.4	2.8	3.4	1.2	3.5
FYR Macedonia	–0.4	3.4	2.3	–0.5	2.9	3.5	3.7
Montenegro	–5.7	2.5	3.2	–2.7	3.5	1.8	3.1
Serbia	–3.1	0.6	1.4	–1.0	2.6	–0.7	1.8
Ukraine	–15.1	4.1	5.4	0.2	0.0	–6.8	–9.9

Source: wiiw.

Table 2

Industrial production

	2009	2010	2011	2012	2013	2014	2015
	Annual real change in %						
Albania	4.2	36.2	19.0	15.7	28.3	1.6	–5.0
Bosnia and Herzegovina	–6.5	4.3	2.4	–3.9	5.2	0.2	3.1
Kosovo[1]	–1.5	1.8	–5.7	–3.3	–1.5	7.8	. .
FYR Macedonia	–8.7	–4.9	6.9	–2.7	3.2	4.8	4.9
Montenegro	–32.2	17.5	–10.3	–7.0	10.6	–11.4	8.2
Serbia	–12.6	1.2	2.5	–2.2	5.4	–6.4	8.4
Ukraine	–21.9	11.2	8.0	–0.5	–4.3	–10.1	–13.0

Source: wiiw.

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

[1] *Former Yugoslav Republic of Macedonia.*

Table 3

Average gross wages – total economy

	2009	2010	2011	2012	2013	2014	2015
	Annual change in %						
Albania	5.2	–3.6	4.9	2.9	–3.2	1.8	3.0
Bosnia and Herzegovina	8.1	1.1	4.4	1.5	0.1	–0.1	0.0
Kosovo[1]	20.4	16.2	21.7	1.7	0.6	16.9	7.2
FYR Macedonia	14.1	1.0	1.2	0.2	1.2	1.0	2.7
Montenegro	5.6	11.2	1.0	0.7	–0.1	–0.4	0.3
Serbia	–3.3	7.5	11.1	8.9	5.7	1.2	–0.5
Ukraine	5.5	17.5	17.6	14.9	7.9	6.6	20.5

Source: wiiw.

[1] Average net monthly wages.

Table 4

Unemployment rate[1]

	2009	2010	2011	2012	2013	2014	2015
	%						
Albania	13.7	14.0	14.0	13.4	15.9	17.5	17.1
Bosnia and Herzegovina	24.1	27.2	27.6	28.0	27.5	27.5	27.7
Kosovo	45.4	45.1	44.8	30.9	30.0	35.3	34.0
FYR Macedonia	32.2	32.0	31.4	31.0	29.0	28.0	26.1
Montenegro	19.3	19.6	19.7	19.7	19.5	18.0	17.6
Serbia	16.1	19.2	23.0	23.9	22.1	19.4	17.0
Ukraine	8.8	8.1	7.9	7.5	7.2	9.3	10.0

Source: wiiw.

[1] Labor force survey, period average.

Table 5

Industrial producer price index

	2009	2010	2011	2012	2013	2014	2015
	Period average, annual change in %						
Albania	0.4	0.3	2.6	1.1	–0.4	–0.5	–2.1
Bosnia and Herzegovina	–3.4	1.0	5.5	0.3	–1.8	–0.5	0.6
Kosovo[1]	3.8	4.1	4.5	1.9	2.5	1.7	4.0
FYR Macedonia	–7.2	8.7	11.9	1.4	–1.4	–1.9	–3.9
Montenegro	–3.9	–0.9	3.2	1.9	1.6	0.1	0.3
Serbia	5.6	12.7	12.7	6.8	2.7	1.3	1.0
Ukraine	6.5	20.9	19.0	3.7	–0.1	17.1	36.0

Source: wiiw.

[1] Kosovo: NACE 1 classification.

Table 6

Consumer price index

	2009	2010	2011	2012	2013	2014	2015
	Period average, annual change in %						
Albania	2.2	3.6	3.4	2.0	1.9	1.6	2.0
Bosnia and Herzegovina	–0.4	2.1	3.7	2.1	–0.1	–0.9	–1.0
Kosovo	–2.4	3.5	7.3	2.5	1.8	0.4	–0.5
FYR Macedonia	–0.8	1.6	3.9	3.3	2.8	–0.3	–0.3
Montenegro	3.4	0.5	3.3	4.0	1.8	–0.5	1.4
Serbia	8.6	6.8	11.0	7.8	7.8	2.9	1.9
Ukraine	15.9	9.4	8.0	0.6	–0.3	12.1	48.7

Source: wiiw.

Table 7

Trade balance

	2009	2010	2011	2012	2013	2014	2015
	% of GDP						
Albania	–26.6	–23.1	–24.2	–20.8	–20.6	–22.1	–22.0
Bosnia and Herzegovina	–30.8	–29.3	–30.8	–30.5	–27.4	–29.7	–26.4
Kosovo	–40.5	–39.6	–42.5	–40.5	–37.5	–37.0	–36.4
FYR Macedonia	–25.8	–21.6	–25.2	–26.5	–22.9	–21.8	–20.1
Montenegro	–44.3	–40.8	–40.4	–44.1	–39.5	–39.8	–41.2
Serbia	–16.5	–15.9	–16.4	–17.8	–12.1	–12.3	–12.1
Ukraine	–4.4	–6.8	–10.6	–12.0	–11.7	–5.3	–3.7

Source: wiiw.

Table 8

Current account balance

	2009	2010	2011	2012	2013	2014	2015
	% of GDP						
Albania	–15.4	–11.3	–13.2	–10.2	–10.9	–12.9	–11.1
Bosnia and Herzegovina	–6.4	–6.0	–9.5	–8.7	–5.3	–7.5	–5.6
Kosovo	–9.2	–11.7	–13.7	–7.5	–6.4	–7.8	–9.3
FYR Macedonia	–6.8	–2.0	–2.5	–3.2	–1.6	–0.8	–1.4
Montenegro	–27.9	–22.9	–17.7	–18.7	–14.5	–15.2	–17.6
Serbia	–6.6	–6.8	–10.9	–11.6	–6.1	–6.0	–4.8
Ukraine	–1.4	–2.1	–6.0	–7.9	–8.8	–3.4	–0.3

Source: wiiw.

Table 9

Net FDI inflows

	2009	2010	2011	2012	2013	2014	2015
	% of GDP						
Albania	8.3	8.8	6.8	6.9	9.8	8.7	8.4
Bosnia and Herzegovina	1.4	2.4	2.7	2.3	1.7	2.7	1.6
Kosovo	7.1	8.3	8.2	4.5	5.3	2.7	5.6
FYR Macedonia	2.1	2.3	4.6	1.5	3.1	2.4	1.7
Montenegro	36.9	18.4	12.3	15.2	10.0	10.8	17.5
Serbia	6.8	4.3	10.6	3.2	4.5	4.5	6.4
Ukraine	4.0	4.6	4.3	4.6	2.4	0.3	3.3

Source: wiiw.

Table 10

Reserve assets excluding gold

	2009	2010	2011	2012	2013	2014	2015
	End of period, % of GDP						
Albania	18.6	20.6	20.0	19.9	20.5	21.4	27.1
Bosnia and Herzegovina	24.8	25.2	23.9	24.2	25.8	28.0	29.9
Kosovo	14.2	14.4	11.9	16.6	15.0	13.4	15.5
FYR Macedonia	21.1	20.9	23.9	25.3	22.1	26.0	22.5
Montenegro	13.3	13.3	9.3	10.9	12.6	15.8	18.7
Serbia	33.5	32.1	34.4	32.5	31.3	28.1	29.8
Ukraine	20.5	23.6	19.4	12.1	9.6	5.4	13.9

Source: wiiw.

Table 11

Gross external debt

	2009	2010	2011	2012	2013	2014	2015
	End of period, % of GDP						
Albania	41.5	45.6	53.5	57.5	66.1	69.2	73.0
Bosnia and Herzegovina	55.0	51.6	48.9	52.2	52.2	51.9	52.0
Kosovo	29.3	31.2	29.7	30.0	30.2	31.2	33.3
FYR Macedonia	55.9	57.8	64.2	68.2	64.0	70.3	69.9
Montenegro[1]	23.5	29.2	32.6	40.7	42.6	45.2	50.1
Serbia	72.7	79.0	72.2	80.9	75.1	77.3	85.1
Ukraine	82.8	83.1	80.5	71.9	72.5	102.6	133.0

Source: wiiw.

[1] *Gross external public debt.*

Table 12

General government balance

	2009	2010	2011	2012	2013	2014	2015
	% of GDP						
Albania	–7.1	–3.1	–3.5	–3.4	–5.0	–5.1	–3.9
Bosnia and Herzegovina	–4.3	–2.4	–1.2	–2.0	–2.1	–2.0	–1.4
Kosovo	0.1	–1.8	–1.1	–1.2	–2.5	–2.9	–2.0
FYR Macedonia	–2.7	–2.4	–2.6	–3.9	–4.0	–4.2	–3.6
Montenegro	–5.7	–4.8	–3.7	–6.5	–3.7	–3.0	–7.9
Serbia	–4.4	–4.6	–4.8	–6.8	–5.5	–6.6	–3.7
Ukraine	–3.9	–5.8	–1.7	–3.5	–4.2	–4.5	–2.3

Source: wiiw.

Table 13

Gross general government debt

	2009	2010	2011	2012	2013	2014	2015
	% of GDP						
Albania	59.7	57.7	59.4	62.1	70.4	71.8	71.8
Bosnia and Herzegovina	36.2	39.3	40.8	43.6	41.6	44.8	45.5
Kosovo	6.1	5.9	5.3	8.1	8.9	10.5	12.0
FYR Macedonia	31.4	34.6	32.0	38.3	40.2	45.9	46.5
Montenegro	38.2	40.7	45.6	53.4	55.7	56.2	60.1
Serbia	32.8	41.8	45.4	56.2	59.6	70.4	76.0
Ukraine	33.6	38.6	35.1	35.3	38.8	69.4	79.4

Source: wiiw.

Table 14

Broad money

	2009	2010	2011	2012	2013	2014	2015
	End of period, annual nominal change in %						
Albania	6.8	12.5	9.2	5.0	2.3	4.0	1.9
Bosnia and Herzegovina	2.2	7.2	5.8	3.4	7.9	7.3	8.0
Kosovo	11.2	12.9	8.8	7.1	17.3	–4.2	..
FYR Macedonia	4.0	8.4	7.5	0.5	0.2	7.2	7.6
Montenegro	–7.0	3.4	2.1	8.4	4.8	9.1	10.9
Serbia	21.5	12.9	10.3	9.4	4.6	8.7	7.2
Ukraine	–5.4	23.1	14.2	13.1	17.5	5.4	4.0

Source: wiiw, European Commission.

Table 15

Official key interest rate

	2009	2010	2011	2012	2013	2014	2015
	End of period, %						
Albania (one-week repo rate)	5.25	5.00	4.75	4.00	3.00	2.25	1.75
Bosnia and Herzegovina[1]	×	×	×	×	×	×	×
Kosovo[2]	×	×	×	×	×	×	×
FYR Macedonia (CB bills)[3]	8.50	4.11	4.00	3.73	3.25	3.25	3.25
Montenegro[2]	×	×	×	×	×	×	×
Serbia (two-week repo rate)	9.50	11.50	9.75	11.25	9.50	8.00	4.50
Ukraine (discount rate)	10.25	7.75	7.75	7.50	6.50	14.00	22.00

Source: wiiw.

[1] *Currency board.*
[2] *Unilateral euroization.*
[3] *Monthly weighted average interest rate on Central Bank Bills auctions (28 days).*

Table 16

Exchange rate

	2009	2010	2011	2012	2013	2014	2015
	Period average, national currency per EUR						
Albania	132.06	137.79	140.33	139.04	140.26	139.97	139.74
Bosnia and Herzegovina	1.96	1.96	1.96	1.96	1.96	1.96	1.96
Kosovo	×	×	×	×	×	×	×
FYR Macedonia	61.27	61.52	61.53	61.53	61.58	61.62	61.61
Montenegro	×	×	×	×	×	×	×
Serbia	93.95	103.04	101.95	113.13	113.14	117.31	120.76
Ukraine	10.87	10.53	11.09	10.27	10.61	15.72	24.23

Source: wiiw.

Notes

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

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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

http://www.oenb.at/en/Publications/Financial-Market/Publications-of-Banking-Supervision.html

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