



OESTERREICHISCHE NATIONALBANK  
EUROSYSTEM

# FOCUS ON EUROPEAN ECONOMIC INTEGRATION

Stability and Security.

Q2/12

The OeNB's quarterly *Focus on European Economic Integration (FEEI)* presents peer-reviewed studies on macro-financial and monetary integration in Central, Eastern and Southeastern Europe (CESEE) as well as related country analyses and statistics. This publication reflects a strategic research priority of the OeNB.

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*Opinions expressed by the authors of studies do not necessarily reflect the official viewpoint of the Oesterreichische Nationalbank or of the Eurosystem.*

## Call for Entries: Olga Radzyner Award 2012 for Scientific Work on European Economic Integration

The Oesterreichische Nationalbank (OeNB) has established an award to commemorate Olga Radzyner, former Head of the OeNB's Foreign Research Division, who died in a tragic accident in August 1999. The award is bestowed on young economists for excellent research on topics of European economic integration and is conferred annually. In 2012, four applicants are eligible to receive a single payment of EUR 3,000 each from an annual total of EUR 12,000.

Submitted papers should cover European economic integration issues and be in English or German. They should not exceed 30 pages and should preferably be in the form of a working paper or scientific article. Authors shall submit their work before their 35<sup>th</sup> birthday and shall be citizens of any of the following countries: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, FYR Macedonia, Hungary, Kosovo, Latvia, Lithuania, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia 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](mailto:eva.gehringer-wasserbauer@oenb.at) or by postal mail – with the envelope marked “Olga Radzyner Award” – to the Oesterreichische Nationalbank, Foreign Research Division, Otto-Wagner-Platz 3, POB 61, 1011 Vienna, Austria. Entries for the 2012 award should arrive at the OeNB by September 17, 2012, 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 [http://www.oenb.at/en/ueber\\_die\\_oenb/foerderung/stipendien/radzyner/teilnahme/teilnahme.jsp](http://www.oenb.at/en/ueber_die_oenb/foerderung/stipendien/radzyner/teilnahme/teilnahme.jsp) or contact Ms. Eva Gehringer-Wasserbauer in the OeNB's Foreign Research Division either by e-mail ([eva.gehringer-wasserbauer@oenb.at](mailto:eva.gehringer-wasserbauer@oenb.at)) or by phone (+43-1-40420-5205).

# Call for Applications: Visiting Research Program

The Oesterreichische Nationalbank (OeNB) invites applications from external researchers for participation in a Visiting Research Program established by the OeNB's Economic Analysis and Research Department. The purpose of this program is to enhance cooperation with members of academic and research institutions (preferably post-doc) who work in the fields of macroeconomics, international economics or financial economics and/or with a regional focus on Central, Eastern and Southeastern Europe.

The OeNB offers a stimulating and professional research environment in close proximity to the policymaking process. Visiting researchers are expected to collaborate with the OeNB's research staff on a prespecified topic and to participate actively in the department's internal seminars and other research activities. They will be provided with accommodation on demand and will, as a rule, have access to the department's computer resources. Their research output may be published in one of the department's publication outlets or as an OeNB Working Paper. Research visits should ideally last between 3 and 6 months, but timing is flexible.

Applications (in English) should include

- a curriculum vitae,
- a research proposal that motivates and clearly describes the envisaged research project,
- an indication of the period envisaged for the research visit, and
- information on previous scientific work.

Applications for 2013 should be e-mailed to [eva.gehringer-wasserbauer@oenb.at](mailto:eva.gehringer-wasserbauer@oenb.at) by November 1, 2012.

Applicants will be notified of the jury's decision by mid-December. The following round of applications will close on May 1, 2013.



# Recent Economic Developments and Outlook

# Developments in Selected CESEE Countries: Heterogeneous Growth Performance, Improving Fiscal and External Accounts<sup>1,2,3</sup>

## 1 Introduction

External environment worsens in fall and early winter 2011 before stabilizing from the turn of the year

Changes in the international environment continued to impact strongly on economic developments in Central, Eastern and Southeastern Europe (CESEE) throughout the review period (October 2011 to April 2012). The intensification of the sovereign debt crisis in some euro area countries in the latter part of 2011, followed by stabilization thereafter, has been particularly relevant for both real and financial sector developments in the CESEE region.

Consequently, in the fall of 2011, the risk assessment of the CESEE region deteriorated markedly. Sovereign CDS premiums and Eurobond spreads increased and some currencies weakened. Although the magnitude of the increases varied across CESEE countries, given differences in underlying vulnerability, spreads generally widened considerably (but much less so than for peripheral euro area countries). Hungary was most affected in the region, as greater domestic policy uncertainty amplified the volatility in international markets. Since the turn of the year, spreads have moderated again to close to their level of September 2011, while currencies have moved sideways or have strengthened again, recovering the ground lost in the last months of 2011.

External demand also softened considerably during the latter part of 2011 before stabilizing from the turn of the year. This has had an impact on the demand for exports from CESEE countries (see below for a more detailed discussion). As a consequence, growth projections for 2012 for the advanced economies, in particular for the euro area, were revised downward, which will also have an effect on growth developments in the CESEE region.<sup>4</sup>

Concerns about cross-border deleveraging affecting CESEE mounted in late 2011, have abated since then, and remain a risk factor looking ahead

Increased funding pressures and higher capital requirements prescribed by the European Banking Authority (EBA) raised serious concerns in the latter part of 2011 about deleveraging, in particular cross-border deleveraging by European banks. Such deleveraging would affect the CESEE region and lead to a credit crunch there, as the lion's share of credit in these countries is provided by Western European banks, either through subsidiaries or via direct cross-border lending. However, the ECB's long-term refinancing operations, which had a positive impact on the liquidity conditions of euro area banks as well as their CESEE subsidiaries – these account for most of the banks active in the CESEE region – as well as parent banks' plans to reach EBA requirements with only marginal reductions on the asset side of their balance sheets have allayed these concerns more recently, at least for the time being.

<sup>1</sup> Compiled by Josef Schreiner with input from Stephan Barisitz, Sándor Gardó, Mariya Hake, Mathias Lahnsteiner, Thomas Reiningger, Katharina Steiner, Jarmila Urvova, Zoltan Walko and Julia Wörz.

<sup>2</sup> Cutoff date: April 11, 2012 (April 23, 2012, for fiscal data). This report focuses primarily on data releases and developments from October 2011 up to the cutoff date, while selectively recalling earlier developments wherever needed to put recent developments into perspective.

<sup>3</sup> This report covers Slovakia, Slovenia, the Czech Republic, Bulgaria, Hungary, Poland, and Romania, as well as Croatia, Turkey and Russia.

<sup>4</sup> For details, see the chapter on the CESEE forecast in this issue of the FEEL.

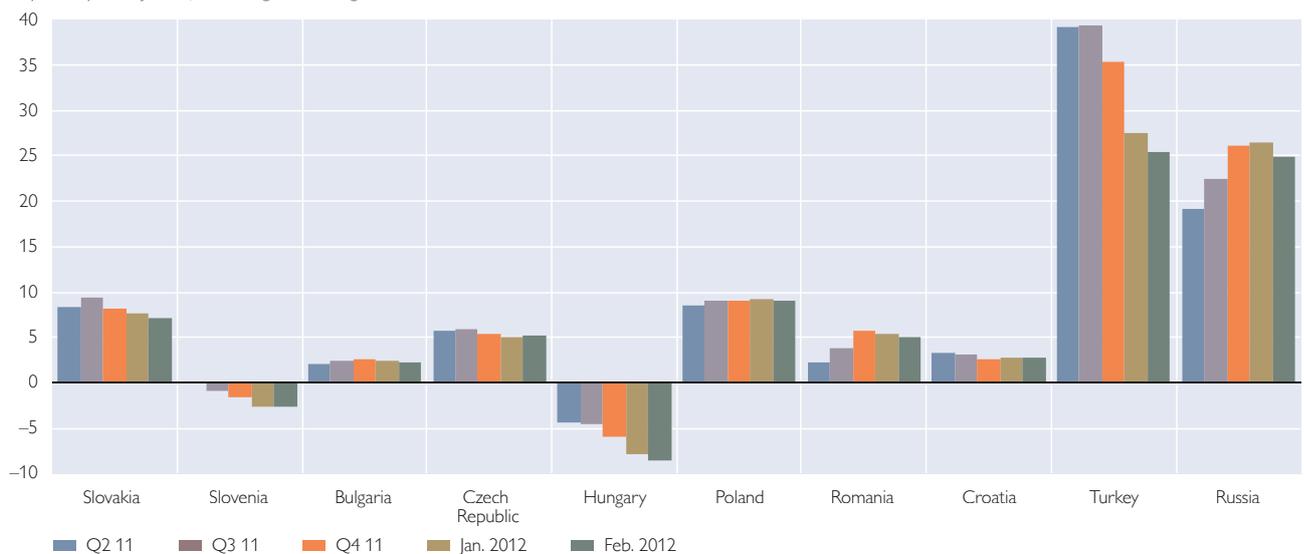
Recent data also suggest that there has been no deleveraging for the region as a whole so far. Exchange rate-adjusted BIS data for the third quarter of 2011 show that European banking groups broadly kept their overall exposure to CESEE unchanged, with some declines in foreign claims only in very few countries (in particular Hungary and to a lesser extent also Slovenia).<sup>5</sup>

The latest figures on the development of the outstanding credit stock point in the same direction as the BIS data. There was no broad-based decline in credit growth during the review period. In some countries, credit growth actually accelerated in the fourth quarter of 2011 (e.g. in Russia, to a lesser extent also in Romania). Some other countries have reported moderating credit dynamics. The decline in growth rates, however, has been mostly moderate. Where it was more substantial, like in Hungary and Turkey, the development was often related to country-specific factors, e.g. the possibility of an early repayment of foreign currency mortgage loans as well as the impact of a high bank tax in Hungary and the tightening of liquidity by the central bank in order to rein in previously very buoyant credit dynamics in Turkey. Developments in the first two months of 2012 show no fundamental trend changes compared to the final quarter of 2011. Credit growth declined further in Hungary and Turkey, but remained broadly unchanged in the rest of the region. It can be noted, however, that credit dynamics no longer accelerated in any country under observation. Still, deleveraging remains a risk, as long as fragilities in the Western European banking system have not been fully addressed.

Chart 1

### Growth of Credit to the Private Sector

% , year on year, adjusted for exchange rate changes



Note: Turkey: not adjusted.

Source: National central banks.

<sup>5</sup> Data for the fourth quarter, however, indicate that a moderate reduction foreign claims took place.

Real economy keeps up comparatively well in the region as a whole, with substantial differences among individual countries

While there has been no general deleveraging, lending conditions have tightened in the CESEE region. The Emerging Markets Bank Lending Conditions Survey of the Institute of International Finance (IIF), for example, reported that lending conditions in emerging Europe deteriorated considerably (and more strongly than in any other emerging market region) in the second half of 2011. In the first quarter of 2012, however, overall lending conditions deteriorated further only marginally, given the stabilizing funding environment of parent banks.

In quarter-on-quarter terms, GDP growth picked up noticeably in the third quarter of 2011 and remained fairly strong also in the final quarter of 2011. However, these regional figures mask substantial differences across countries.

Growth in the region was boosted by bumper harvests in Russia, Romania, and Hungary, but also by the generally good performance of Russia and Turkey, the two largest economies in the region. These two economies are much less tightly interconnected with the euro area than most other CESEE countries and are viewed by financial markets as distinctive from the other CESEE countries. Moreover, growth in Russia benefited from rising oil prices. Apart from those two countries, Slovakia and Poland were also nearly unaffected by the economic downturn in Western Europe. Both countries have been growing at quarter-on-quarter rates of about 1% for several quarters, with industry and also construction (in Poland) delivering important growth contributions.

Slovenia, the Czech Republic and Croatia, on the other hand, reported anemic or negative growth for several quarters, as domestic economic weaknesses were amplified by the deterioration in the international environment. The same is true for Hungary, where the good performance of agriculture, however, kept GDP growth in positive territory. In Romania, the good growth reading in the third quarter was mainly due to agriculture, and the downturn in the fourth quarter was at least in part attributable to base effects.

Notable growth contributions of domestic demand only in the faster-growing countries

The development of GDP components underlines the dichotomy of growth developments in the CESEE region. Dynamics in the economically weaker countries

Table 1

### Real GDP growth

	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Period-on-period change in % (seasonally and working-day adjusted)</i>								
Slovakia	4.2	3.3	0.9	0.8	0.8	0.8	0.8	0.9
Slovenia	1.4	-0.2	0.4	0.7	-0.3	-0.1	-0.4	-0.7
Bulgaria	0.4	1.7	0.8	0.4	0.5	0.5	0.2	0.3
Czech Republic	2.7	1.7	0.7	0.6	0.5	0.3	-0.1	-0.1
Hungary	1.3	1.7	0.7	0.2	0.7	0.1	0.4	0.3
Poland	3.9	4.3	1.3	0.9	1.1	1.2	1.0	1.1
Romania	-1.7	2.5	-0.8	0.9	1.1	0.2	1.1	-0.2
Croatia	-1.2	-0.0	0.4	-0.2	0.0	0.4	0.1	-0.2
Turkey	9.2	8.5	1.1	3.6	1.4	1.3	1.7	0.6
Russia	4.3	4.3	0.3	2.3	0.9	-0.0	1.8	1.9
CESEE average <sup>1</sup>	4.5	4.6	0.6	2.0	1.0	0.5	1.4	1.1
Euro area	1.9	1.5	0.4	0.3	0.7	0.1	0.1	-0.3

Source: Eurostat, national statistical offices.

<sup>1</sup> Average weighted with GDP at PPP.

of the region were to a substantial extent driven by foreign demand, which delivered the only positive growth contributions in the final quarter of 2011. Weak domestic demand and the consequent subdued development of imports played a key role in promoting net exports.

In the faster-growing countries of the region, it was domestic demand that contributed more notably to growth. Private consumption was especially robust in Russia and Turkey, while capital formation provided stronger growth impulses in Slovakia and Poland. Both Russia and Turkey benefited from animated credit growth, somewhat improving labor market conditions and rising real wages. Investments in Slovakia were stimulated by rising capacity utilization, while a booming construction sector in the run-up to the 2012 European football championship had a positive impact in Poland. In most of the other countries, the consolidation of public finances, subdued labor markets as well as – in a few instances – ongoing efforts by households (in Slovenia also by the corporate sector) to reduce leverage hampered stronger domestic demand growth.

Sentiment indicators worsened in the latter part of 2011, while they have improved somewhat since the beginning of 2012. The economic sentiment indicator of the European Commission (which is available for EU Member States only), for example, reached a two-year low in December 2011. The average reading for the region was 89.2 points, nearly 5 points below the August reading and clearly below the long-run average of 100. By March 2012, the indicator had picked up again to 94.4 points.

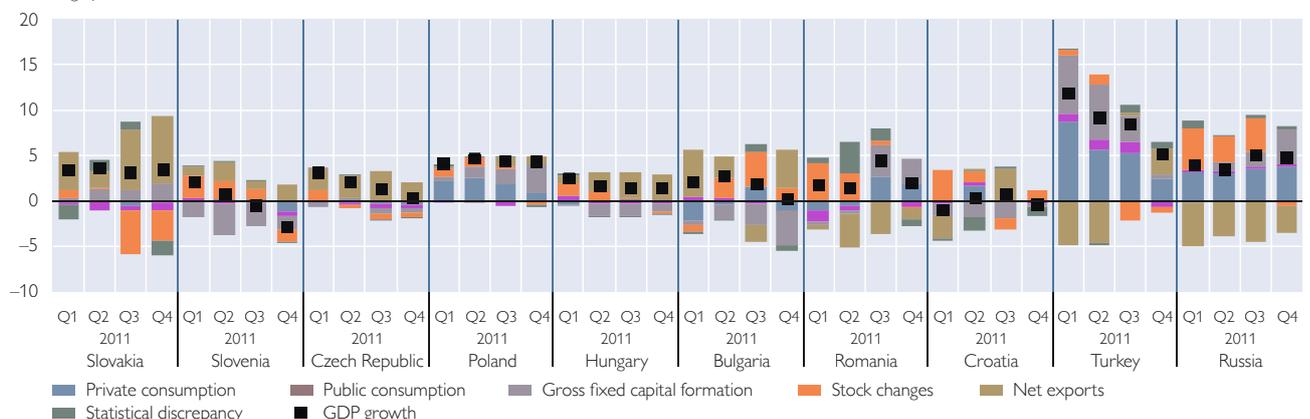
The growth of industrial output declined moderately but steadily from 5.4% in August 2011 to 3.5% in February 2012. The decline was strongly influenced by developments in Turkey, where industrial dynamics decelerated more substantially than in the other countries, not least given a base effect after the very brisk performance in 2010. Russia, too, reported below-average growth rates of industrial production, with the performance of the extractive branches and of the production and distribution of electricity, gas and water weighing on the overall rate. Recently, however, the dynamics have picked up somewhat in Russia, a phenomenon that has

Sentiment and high-frequency activity indicators weaken in the second half of 2011, but improve somewhat in the first months of this year

Chart 2

## GDP Growth and Its Main Components

Percentage points, dots in %



Source: Eurostat, national statistical offices.

also been observed in Poland and Slovakia. Recent developments in retail sales have been heterogeneous across the region, with comparatively strong readings in Russia and Romania, while outturns in Bulgaria and Slovakia were particularly subdued. At the current juncture, a positive momentum, as in industrial production, cannot be observed yet.

Against this background, economic growth in CESEE is expected to pick up gradually during the course of 2012, but it will remain markedly below 2011 readings.<sup>6</sup>

**Lower inflation rates in many countries**

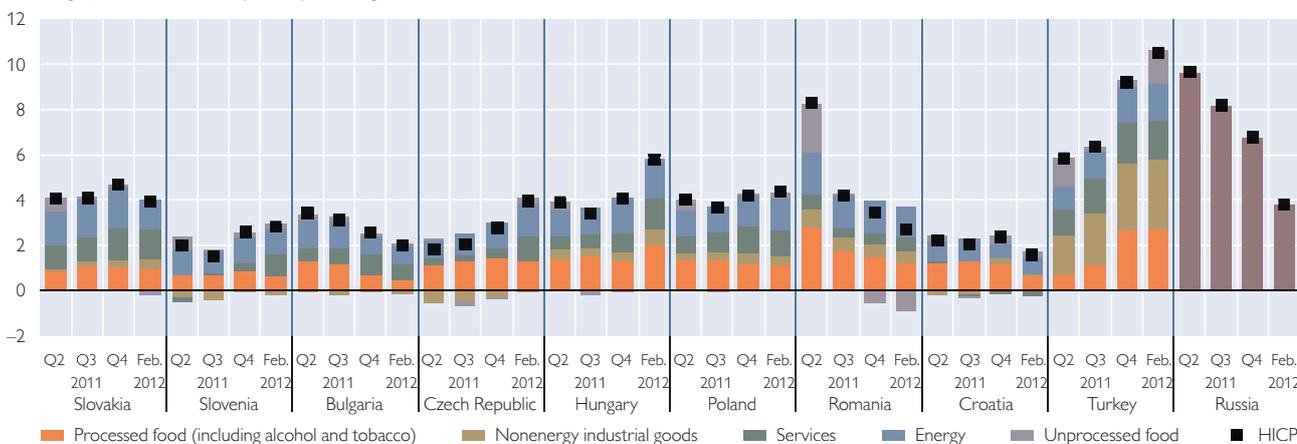
The average inflation rate in the ten CESEE countries covered here declined from around 6% in the third quarter of 2011 to around 5% in February 2012. This development was mostly driven by disinflation in Russia, but price dynamics moderated in Bulgaria and Romania as well. These countries benefited from the favorable development of food prices in the wake of bountiful harvests. The fact that food accounts for a large share of these countries' basket of goods further amplified the effect on the consumer price index. Croatia is currently recording the lowest inflation among the ten countries (about 1½% year on year in January and February 2012), largely due to weak domestic demand, which also pushed core inflation into negative territory in this country.

Some countries in the region, however, reported rising inflation rates, namely Turkey, Slovenia, Hungary and the Czech Republic. In the latter two, inflationary developments were strongly influenced by indirect tax hikes that took effect in January 2012. The value added tax rate was raised from 25% to 27% in Hungary, and the lower VAT rate in the Czech Republic went up from 10% to 14%. Moreover, energy price increases were higher than the regional average in both countries, also because of the depreciation especially of the Hungarian forint since mid-2011. Currency depreciation apparently had an influence on inflation developments in Turkey too. However, price dynamics in the country accelerated among all

Chart 3

**HICP Inflation and Its Main Drivers**

Percentage points, contribution to year-on-year change in HICP; HICP in %



Source: Eurostat.

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

<sup>6</sup> For the detailed OeNB-Bank of Finland forecast for CESEE, see this issue.

subcategories amidst an environment of decelerating, but still strong domestic demand as well as higher food and energy prices.

Against this background, the Hungarian central bank raised its key interest rate, and the central bank of Turkey further tightened its policy stance in the review period. Furthermore, the Polish central bank adopted a tightening bias in April. Conversely, monetary policy was loosened slightly in Romania and Russia (for further details, see the respective country chapters).

Current account positions in the CESEE region had improved substantially during the global financial crisis. This process came to a temporary halt in the first half of 2011. During the review period, however, external positions again improved in many CESEE countries. The average current account balance in the region turned from a deficit of 0.8% of GDP in the second quarter of 2011 into a slight surplus of 0.1% of GDP in the fourth quarter of 2011 (four-quarter moving sums). This trend was driven strongly by developments in Russia, which were in turn fueled by oil price movements, but it was also notable in Croatia, the Czech Republic and Slovakia, with the adjustment reaching 2.5 percentage points of GDP in Slovakia (measured from the second quarter of 2011 to the fourth quarter of 2011). Better outcomes in the trade balance were mostly responsible for this development, with a lower gap in the income balance playing a role in the Czech Republic too.

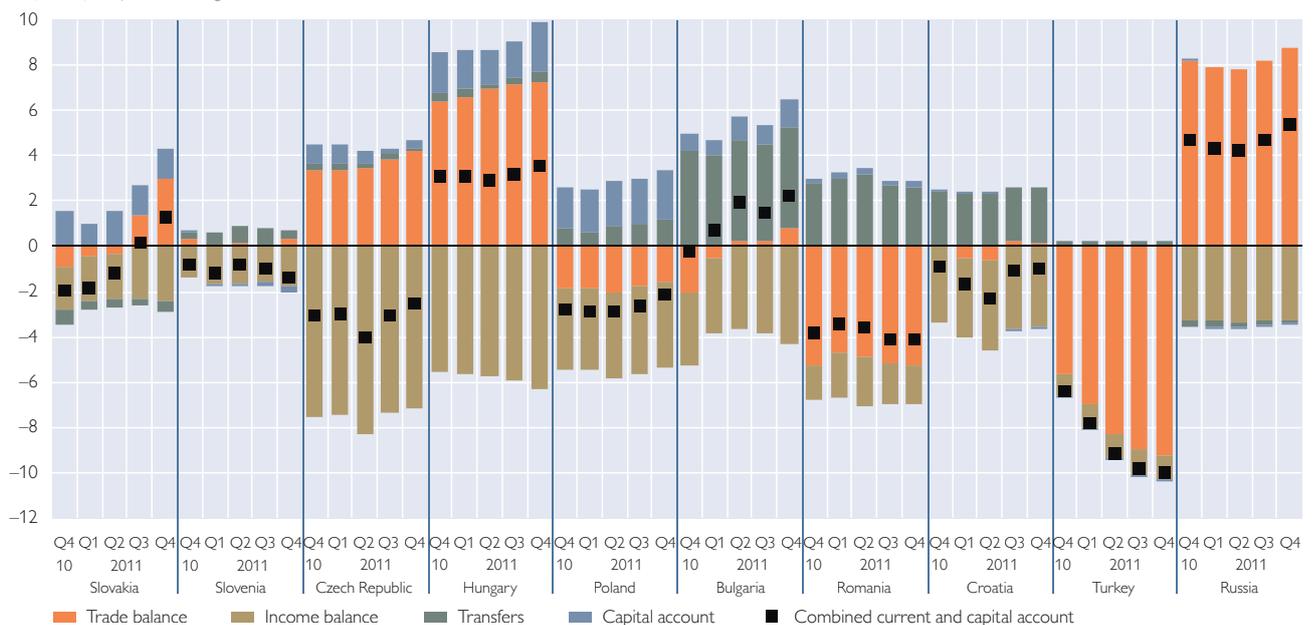
At first sight, the improved trade performance seems somewhat counterintuitive, as the international environment of the CESEE region clearly deteriorated in the review period. It needs to be borne in mind, however, that trade linkages with the euro area countries affected most strongly by the debt crisis are rather weak. In

Further external  
adjustment in the  
second half of 2011

Chart 4

### Combined Current and Capital Account Balance

% of GDP, four-quarter moving sum



Source: Eurostat, IMF, national central banks.

fact, Germany is by far the most important trading partner for the region, and the economic dynamics there remained comparatively solid until autumn 2011. Furthermore, and despite a clear deceleration, world trade also continued to expand at a rather robust 5.8% in 2011, and the international price competitiveness of the CESEE countries benefited from pronounced exchange rate depreciations in the second half of 2011. Apart from that, weak domestic demand as a dampening factor for imports influenced the trade performance in some countries.

Outflows of other investments weigh on the financial account

Net capital flows to the ten CESEE countries as a whole decelerated from 2.8% of GDP in the second quarter of 2011 (four-quarter moving sum), but remained positive in the latter part of the year despite the worsening of external developments and amounted to 0.9% of GDP in the fourth quarter of 2011 (four-quarter moving sum). Lower net inflows were mostly due to the changing dynamics of net flows of other investments, but also of portfolio investment flows. Developments in the regional aggregate were strongly influenced by Russia, which recorded capital outflows comparable to those in the crisis year 2008.

At the country level, capital inflows decreased substantially in Croatia, the Czech Republic, Poland and Romania (reflecting in part falling external financing needs), while they picked up somewhat only in Slovakia and Hungary. FDI inflows increased in Slovakia, Poland, Croatia and Bulgaria, but overall FDI inflows to the region remain rather low compared to precrisis developments. The FDI coverage ratio of countries with current account deficits was generally high and increasing (to around 80% or higher), with the exception of Romania and Turkey (34% and 17%, respectively).

Fiscal balances benefited from relatively strong economic dynamics in the first half of 2011, from ongoing consolidation efforts and – in Russia – from oil price developments

During the observation period, fiscal balances in CESEE continued to improve. The average deficit of the region contracted from –4.5% of GDP in 2010 to –0.7% of GDP in 2011. This reading is about 1.5% of GDP below the projections of early 2011, partly due to fairly good growth dynamics throughout the first half of the year. Accordingly, the decline in the cyclically adjusted deficit figures was somewhat less pronounced (from –3.6% of GDP in 2010 to –1.6% of GDP in 2012).

The regional average was strongly driven by developments in Russia. Against the background of solid economic dynamics and buoyant oil prices, the country turned its budget deficit into a surplus, with consolidation efforts amounting to 5% of GDP. The improvement, however, was in part also driven by the withdrawal of some anticrisis stimulus measures that had been introduced in 2008 to 2009.

Slovenia and Croatia were the only CESEE countries under review here to report a higher budget gap in 2011 compared to 2010, as both countries could not benefit tangibly from the stronger international momentum in the first half of 2011 and as consolidation efforts were stalling last year. In both countries, new administrations took over in early 2012 and started to renew fiscal consolidation efforts.

Excessive deficit procedures: Current state and outlook

All seven CESEE EU Member States covered here remained under the excessive deficit procedure (EDP) during the review period. In Hungary, the EDP was stepped up in early 2012. The deadlines for the correction of excessive deficits have remained unchanged: 2011 for Bulgaria, 2012 for Poland and Romania and 2013 for the Czech Republic, Slovakia and Slovenia. In early summer, the European Commission will review the progress toward reaching these deadlines, based on the final deficit figures for 2011 as checked by Eurostat and on the convergence program updates the Member States will provide to the Commission until end-April. The

Council will then decide about the Commission recommendations, presumably around mid-year. Given that Bulgaria lowered its deficit to clearly below 3% of GDP in 2011 and seems to be on track to retain moderate deficits in 2012 and beyond, it is expected that the EDP for Bulgaria will be lifted.

During the review period, two important events related to EU enlargement took place: In December 2011, the EU and Croatia signed the accession treaty with Croatia; subsequently, the referendum on EU accession in Croatia brought a positive result. The accession treaty is expected to be ratified in the first half of 2013, so that Croatia will become an EU Member State on July 1, 2013. Furthermore, in March 2012, Serbia was granted EU candidate country status.

Some further progress  
with EU enlargement

## 2 Slovakia: Export-Driven Growth in the Second Half of 2011, Fiscal Consolidation Challenges Ahead

Output growth in the second half of 2011 still driven by net exports and investment despite deterioration in external environment

After posting solid growth in 2010, the Slovak economy was again among the most dynamic EU economies in 2011, with annual growth coming to 3.3%. In the second half of 2011, output continued to advance broadly at the first-half pace, but the dynamics of its components changed considerably. In the second half of 2011, growth was driven by net exports, while domestic demand started to contribute negatively to growth. Even though both export and import growth slowed down considerably in the last two quarters, the dynamics of import growth decelerated much more than that of exports and even turned negative, so that the overall contribution of external demand to output growth almost doubled. This development was supported by new investments in automobile production lines. Household consumption as well as public consumption growth remained negative, with the former being dragged down by unfavorable labor market developments.

Current account improves considerably, inflation spikes

The current account improved substantially, turning positive in 2011 owing to an improvement in all of its components except the income balance, most notably a 3.5% of GDP surplus in the trade balance. The income balance continued to deteriorate in the second half of 2011, mainly due to the reinvestment of most earnings of foreign-owned companies. These reinvestments contributed to renewed net FDI inflows amounting to 1.7% of GDP in 2011 as a whole, after FDI inflows had temporarily dropped in the second quarter.

Labor market remains anemic

Average annual HICP inflation picked up to 4.1% in 2011. In the first half of 2011, higher global energy and food prices, a higher VAT rate (increase by 1 percentage point to 20%) and excise taxes fueled inflation. Regulated energy prices and transport prices pushed up inflation in the second half, and, to a lesser extent, in January and February 2012, when the HICP reached 4.1% and 4.0% year on year, respectively.

The labor market does not reflect recent economic growth. The employment rate rose at a declining pace throughout 2011 and still has not reached precrisis levels. The previous decline of the unemployment rate reversed in the second half of the year, when unemployment expanded by 0.8 percentage points to 14% in the fourth quarter. Unit labor costs in manufacturing increased by 2.3% in 2011, partly owing to a base effect from the previous year, with labor costs outpacing productivity growth, in particular in the second half of the year.

New government faces fiscal consolidation challenges

Subject to the excessive deficit procedure since 2009, Slovakia has committed itself to bringing the public deficit down to below 3% of GDP by 2013. At 4.8%, the deficit came in slightly lower than expected (4.9%, including a +0.8 percentage point methodological revision by Eurostat) in 2011, down from 7.7% in 2010. For 2012, a deficit of 4.6% is budgeted, with the consolidation measures comprising a public wage bill freeze (except for judges, prosecutors and teachers), a cut in goods and services spending (by 0.5% nominally) and a bank levy. However, the new single-party government which came out of the early elections in March 2012 will have to introduce further measures to meet the 2013 target in a sustainable manner. So far, the reintroduction of a progressive income tax, an increase of the just enacted bank levy and various changes to the pension system are being tentatively explored. Additionally, in late 2011, a new law on fiscal responsibility was adopted that imposes a constitutional limit on the public debt-to-GDP ratio of 60%, which is to decline gradually to 50% by 2028 (the public debt stood at 43.3% of GDP in 2011).

Table 2

**Main Economic Indicators: Slovakia**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	-4.9	4.2	3.3	4.0	3.7	3.4	3.5	3.0	3.4
Private consumption	0.2	-0.7	-0.4	-0.7	0.0	-0.2	-0.1	-0.8	-0.3
Public consumption	6.1	1.1	-3.5	2.1	-2.7	-1.7	-5.1	-3.3	-3.7
Gross fixed capital formation	-19.7	12.4	5.7	13.4	15.1	1.6	6.4	5.9	8.4
Exports of goods and services	-15.9	16.5	10.8	16.2	15.8	16.8	13.1	6.8	7.5
Imports of goods and services	-18.1	16.3	4.5	20.0	15.5	11.4	10.9	-1.8	-1.0
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-7.2	4.2	-1.5	6.4	3.7	0.8	0.4	-4.5	-2.4
Net exports of goods and services	2.3	0.0	5.1	-2.5	-0.0	4.2	1.9	6.6	7.4
Exports of goods and services	-13.3	11.7	8.8	10.9	12.0	13.4	10.6	5.2	6.5
Imports of goods and services	-15.6	11.7	3.7	13.4	12.1	9.2	8.7	-1.4	-0.9
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	7.3	-1.7	-0.7	0.2	-0.5	0.5	-0.7	-0.5	-2.0
Unit labor costs in manufacturing (nominal, per hour)	1.7	-16.5	2.3	-10.1	-8.1	-3.8	1.8	4.9	6.3
Labor productivity in manufacturing (real, per hour)	4.0	19.2	4.2	13.0	11.9	7.9	4.2	4.4	0.9
Labor costs in manufacturing (nominal, per hour)	4.9	0.5	6.7	1.6	2.9	3.7	6.1	9.4	7.2
Producer price index (PPI) in industry	-6.6	0.1	4.4	1.9	1.8	5.3	5.1	3.7	3.6
Consumer price index (here: HICP)	0.9	0.7	4.1	1.0	1.1	3.5	4.1	4.1	4.7
EUR per 1 SKK, + = SKK appreciation	3.8	3.8	3.8	..	..	..	..	..	..
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	12.1	14.4	13.6	14.2	13.9	13.9	13.2	13.2	14.0
Employment rate (%, 15–64 years)	60.2	58.8	59.5	59.2	59.3	59.0	59.6	59.9	59.5
Key interest rate per annum (%)	..	..	..	..	..	..	..	..	..
SKK per 1 EUR	..	..	..	..	..	..	..	..	..
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	3.2	4.4	0.7	3.5	4.4	2.8	3.9	5.0	0.7
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	-1.4	1.3	-3.8	-1.6	1.3	0.3	2.5	-5.5	-3.8
Domestic credit of the banking system	23.0	9.2	9.4	12.0	9.2	4.2	3.8	4.4	9.4
<i>of which: claims on the private sector</i>	6.0	3.2	6.9	1.9	3.2	4.6	6.8	7.5	6.9
<i>claims on households</i>	3.5	4.2	3.9	3.8	4.2	4.3	4.5	4.3	3.9
<i>claims on enterprises</i>	2.4	-1.0	2.9	-1.9	-1.0	0.3	2.4	3.2	2.9
<i>claims on the public sector (net)</i>	17.0	6.0	2.5	10.2	6.0	-0.4	-3.0	-3.1	2.5
Other assets (net) of the banking system	-18.4	-6.1	-4.9	-7.0	-6.1	-1.7	-2.4	6.1	-4.9
<i>% of GDP, ESA 95</i>									
General government revenues	33.5	32.4	32.6	..	..	..	..	..	..
General government expenditures	41.5	40.1	37.4	..	..	..	..	..	..
General government balance	-8.0	-7.7	-4.8	..	..	..	..	..	..
Primary balance	-6.6	-6.3	-3.2	..	..	..	..	..	..
Gross public debt	35.6	41.1	43.3	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-16.8	22.8	15.6	23.9	23.0	25.9	16.9	13.8	8.1
Merchandise imports	-20.0	25.5	10.9	32.7	29.0	25.3	17.4	4.6	0.6
<i>% of GDP (based on EUR), period total</i>									
Trade balance	1.5	0.2	3.5	-1.9	-1.2	2.9	2.1	4.3	4.7
Services balance	-1.6	-1.1	-0.5	-0.9	-0.6	-0.8	-0.9	-0.7	0.2
Income balance (factor services balance)	-1.4	-1.9	-2.4	-1.2	-1.9	-2.5	-2.4	-2.3	-2.5
Current transfers	-1.1	-0.6	-0.5	-1.3	-0.7	1.4	-0.8	-1.1	-1.4
Current account balance	-2.6	-3.5	0.1	-5.3	-4.4	1.0	-1.9	0.2	1.0
Capital account balance	0.7	1.5	1.3	1.8	1.9	0.3	2.3	1.1	1.3
Foreign direct investment (net)	-1.0	0.2	1.7	-2.3	1.1	1.7	-1.6	1.4	5.3
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	72.2	74.9	76.7	75.2	74.9	77.7	78.2	78.0	76.7
Gross official reserves (excluding gold) <sup>1</sup>	0.8	0.8	1.0	0.8	0.8	0.9	0.9	0.9	1.0
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold) <sup>1</sup>	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
<i>EUR million, period total</i>									
GDP at current prices	62,795	65,744	69,058	17,445	16,855	15,853	17,192	18,258	17,756

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

<sup>1</sup> Given Slovakia's adoption of the euro, the concept of the calculation of international reserves changed as of the beginning of 2009. In particular, reserves no longer include foreign assets in euro or claims on euro area residents.

### 3 Slovenia: New Government Commits to Fiscal Consolidation as Recession Looms

Economy slides into recession in the second half of 2011

Following economic growth of 1.4% year on year during the first half of 2011, the economy progressively slid into recession during the last two quarters. While the decline in investment moderated in the fourth quarter as negative trends in construction eased somewhat, changes in inventories sharply reduced GDP growth, unlike in the past several quarters, when they had made a large positive contribution. Domestic consumption contracted in the second half of the year, reflecting spending restraint in the public sector, poor labor market conditions, decelerating real wage growth and weak consumer confidence. Credit conditions tightened further in the second half of 2011, as net losses, funding pressures and recapitalization needs faced by Slovenian banks increased. At the same time, credit demand was constrained by the weak economic environment, high unemployment and income uncertainty, declining collateral value (house prices), lackluster investment activity and the high indebtedness of nonfinancial corporations. Export growth continued to slow in the second half of 2011, as did import growth, but net exports still contributed positively to the overall GDP growth rate.

Inflation picks up from lows seen in mid-2011 but remains under control

HICP inflation accelerated from the lows seen in July and August 2011 and reached 2.8% in February 2012. The acceleration since August 2011 was almost entirely attributable to core inflation, which increased from 0.1% to 1.8% in February 2012. On a positive note, both headline and core inflation in Slovenia was lower than the euro area average between early 2011 and January 2012, and the February spike in inflation was overwhelmingly attributable to energy price increases and a base effect. While the weakness of domestic consumption has likely mitigated demand-pull inflation, the growth rate of unit labor costs in the whole economy turned slightly positive in the final quarter of 2011 following negative annual unit labor cost growth since the beginning of 2010. However, the underlying trend may be more benign, as the developments in the fourth quarter were mainly due to a cyclical decline of productivity that outpaced the decline of labor costs.

New government promises fiscal consolidation, growth promotion, and privatization

Following parliamentary elections in early December 2011, a new center-right government was confirmed by parliament in mid-February 2012. So far the new government has indicated that the consolidation of public finances, the stimulation of economic growth and job creation rank high on its priority list. As a first step to tackle uncertainties around the 2012 budget, the government has sent to parliament a supplementary budget for 2012 to reduce the central government budget deficit to 3% of GDP.<sup>7</sup> The measures concentrate on reorganizing and streamlining the public sector, lowering wage costs and achieving savings in the social security and education systems as well as in subsidies and public investments. Also, the government signaled that it was not ready to provide fresh money (around EUR 300 million to EUR 400 million by mid-2012 as prescribed by the European Banking Authority) for the recapitalization of the country's biggest bank, NLB, but instead planned to reduce its stake in the bank from 55% to 25%. To revive the economy, the government intends to gradually reduce the tax burden, increase tax breaks for investment and R&D, cut red tape further for enterprises, accelerate privatization and attract foreign investors.

<sup>7</sup> The 2012 budget was initially approved in November 2010 under substantially different economic assumptions.

Table 3

**Main Economic Indicators: Slovenia**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	-8.0	1.4	-0.2	1.7	2.3	2.1	0.7	-0.5	-2.8
Private consumption	-0.1	-0.7	-0.3	-1.1	0.8	0.1	0.4	0.4	-1.9
Public consumption	2.9	1.5	-0.9	1.3	1.6	1.2	-1.3	-0.9	-2.6
Gross fixed capital formation	-23.3	-8.3	-10.7	-9.9	-7.2	-8.1	-15.1	-12.0	-6.9
Exports of goods and services	-17.2	9.5	6.8	11.4	8.3	10.9	8.3	5.5	3.0
Imports of goods and services	-19.6	7.2	4.7	5.9	7.8	9.6	5.0	4.4	0.3
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-10.3	-0.1	-1.6	-1.5	1.9	1.1	-1.5	-1.4	-4.4
Net exports of goods and services	2.3	1.5	1.4	3.2	0.3	0.9	2.2	0.8	1.8
Exports of goods and services	-11.5	5.6	4.5	6.6	5.0	7.0	5.4	3.6	2.0
Imports of goods and services	-13.8	4.1	3.0	3.4	4.7	6.1	3.2	2.8	0.2
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	8.9	-0.7	-0.4	0.0	-1.3	-1.1	-0.6	-0.7	1.0
Unit labor costs in manufacturing (nominal, per hour)	25.1	-0.5	0.3	-1.1	-1.8	-4.5	0.8	0.8	4.4
Labor productivity in manufacturing (real, per hour)	-15.9	3.9	1.6	4.4	6.0	7.2	2.3	-0.8	-1.9
Labor costs in manufacturing (nominal, per hour)	5.7	3.2	1.9	3.3	4.0	2.3	3.1	-0.1	2.4
Producer price index (PPI) in industry	-1.4	2.0	4.6	3.2	3.8	5.7	4.8	4.1	3.6
Consumer price index (here: HICP)	0.9	2.1	2.1	2.3	2.0	2.2	2.0	1.5	2.6
EUR per 1 SIT, + = SIT appreciation	..	..	..	..	..	..	..	..	..
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	6.0	7.4	8.4	7.2	7.9	8.7	7.8	8.0	8.9
Employment rate (%, 15–64 years)	67.5	66.2	64.4	66.3	65.7	63.7	64.4	65.1	64.4
Key interest rate per annum (%)	..	..	..	..	..	..	..	..	..
SIT per 1 EUR	..	..	..	..	..	..	..	..	..
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	3.4	1.6	3.0	1.9	1.6	0.5	1.4	2.9	3.0
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	6.6	-4.0	7.2	-4.8	-4.0	-0.6	4.8	7.8	7.2
Domestic credit of the banking system	4.1	6.7	-3.2	8.4	6.7	2.3	0.1	-2.7	-3.2
<i>of which: claims on the private sector</i>	2.7	2.8	-3.9	3.1	2.8	1.1	0.2	-1.5	-3.9
<i>claims on households</i>	2.7	3.9	0.8	4.0	3.9	3.0	2.3	1.6	0.8
<i>claims on enterprises</i>	2.0	-1.1	-4.6	-0.9	-1.1	-1.9	-2.2	-3.0	-4.6
<i>claims on the public sector (net)</i>	-2.6	3.9	0.7	5.2	3.9	1.1	-0.0	-1.2	0.7
Other assets (net) of the banking system	-5.3	-1.2	-1.1	-1.7	-1.2	-1.1	-3.6	-2.2	-1.1
<i>% of GDP, ESA 95</i>									
General government revenues	43.2	44.2	44.5	..	..	..	..	..	..
General government expenditures	49.3	50.2	50.9	..	..	..	..	..	..
General government balance	-6.1	-6.0	-6.4	..	..	..	..	..	..
Primary balance	-4.7	-4.4	-4.5	..	..	..	..	..	..
Gross public debt	35.3	38.8	47.6	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-19.4	13.8	12.5	17.5	14.9	19.2	13.7	10.2	7.6
Merchandise imports	-25.7	16.2	12.4	16.6	18.9	21.2	13.1	11.0	5.8
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-2.0	-3.4	-3.7	-2.6	-5.7	-3.7	-3.0	-3.2	-5.1
Services balance	3.3	3.7	4.0	3.8	3.5	3.8	4.3	3.9	4.0
Income balance (factor services balance)	-2.2	-1.4	-1.8	-2.2	-1.1	-1.7	-1.5	-2.1	-1.8
Current transfers	-0.4	0.3	0.4	0.1	2.2	0.6	0.3	-0.0	0.8
Current account balance	-1.3	-0.8	-1.1	-0.9	-1.0	-1.1	0.1	-1.4	-2.0
Capital account balance	-0.0	0.0	-0.3	0.2	-0.6	-0.1	-0.1	-0.1	-0.9
Foreign direct investment (net)	-1.8	0.9	2.1	0.6	3.7	0.6	2.6	2.1	3.0
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	114.1	114.9	116.6	118.1	114.9	120.1	118.6	119.6	116.6
Gross official reserves (excluding gold) <sup>1</sup>	1.9	2.0	1.8	1.9	2.0	1.8	1.8	1.8	1.8
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold) <sup>1</sup>	0.4	0.4	0.3	0.4	0.4	0.3	0.3	0.3	0.3
<i>EUR million, period total</i>									
GDP at current prices	35,311	35,416	35,639	9,178	8,967	8,362	9,223	9,183	8,870

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

<sup>1</sup> Given Slovenia's adoption of the euro, the concept of the calculation of international reserves changed as of the beginning of 2007. In particular, reserves no longer include foreign assets in euro or claims on euro area residents.

#### 4 Bulgaria: Slowing Economic Activity, Vanishing Macroeconomic Imbalances and Sound Fiscal Developments

Sluggish domestic demand and deteriorating external conditions weigh on fragile recovery

GDP growth in Bulgaria lost momentum in the second half of 2011 and came to 0.3% in the fourth quarter, bringing annual average growth in 2011 to 1.7%. Growth in 2011 was primarily driven by net exports and the rebuilding of inventories, while domestic demand components still imposed a drag on GDP growth. Private consumption stayed depressed in 2011 due to adverse labor market conditions, weak consumer confidence, shrinking lending to households and fiscal austerity measures. At the same time, gross fixed investment continued to decline given weak demand conditions and persistently low business confidence. Net exports continued to contribute positively to economic growth, but somewhat less so than in the first half of 2011.

Macroeconomic imbalances have been corrected

The still favorable development of net exports was also reflected in the current account, which posted a surplus of about 1.8% of GDP in the second half of 2011. The bulk of improvement, compared to the second half of 2010, came from the goods and services balance and the increase in current transfers, while the deficit in the income balance widened somewhat. The country's gross external debt-to-GDP ratio fell below 100% on the back of the amortization and repayment of external debt by the private sector (primarily corporates and banks).

Weak domestic demand also left its footprint on the development of prices. A negative contribution of prices for nonenergy industrial goods, together with declining food and energy prices, supported a continued disinflation process in the second half of 2011. Annual HICP inflation had steadily decreased from its peak of 4.6% in March 2011 to 2% in December. Since then, it has more or less stayed at this level, in spite of the significant rise in automotive fuel prices and administered prices at the beginning of 2012.

Continuing job reduction, positive unit labor cost growth in manufacturing

Notwithstanding the acceleration of economic activity in the first half of 2011, the annual employment rate contracted to 58.5% and the unemployment rate increased to 11.3% until the end of the year. Continuing job reduction, together with an increase in minimum wages in 2011, led to a further widening of labor costs. Labor productivity gains, which continued to decline, were no longer able to compensate for the wage increases, and the growth of unit labor costs in the manufacturing sector thus turned positive again in the second half of 2011 (for the first time since 2009).

Mixed financial sector developments

In contrast to lending to households, credit to enterprises started to show positive dynamics in the second half of 2011. However, overall lending to the private sector grew only meagerly. This cautious revival of credit activity is backed by the steady growth of bank deposits, which augmented by more than 9% in real terms in the second half of 2011 (nearly twice as much as a year before).

Sound fiscal developments: EDP exit in 2012 still on track

Bulgaria is still subject to an EU Council decision on the existence of an excessive deficit which had to be corrected in 2011. The general government deficit for 2011 is 2.1% of GDP and thus clearly below the 2.5% target in the 2011 convergence program. The budget adopted for 2012 stipulates a general government deficit of 1.35% of GDP in 2012. The exit from the EDP in 2012 is thus still on track. However, it should be noted that some of the economic assumptions underlying the 2012 budget (2012 GDP growth of close to 3%) are on the optimistic side.

Table 4

**Main Economic Indicators: Bulgaria**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	-5.5	0.4	1.7	0.8	3.1	2.0	2.7	1.9	0.3
Private consumption	-7.6	0.1	-0.6	-1.3	2.5	-3.0	-0.6	2.9	-1.6
Public consumption	-6.5	1.9	0.5	-0.7	4.7	2.7	2.4	-2.4	-0.2
Gross fixed capital formation	-17.6	-18.3	-9.7	-24.3	-1.6	-2.4	-6.6	-12.4	-14.4
Exports of goods and services	-11.2	14.7	12.8	21.0	14.5	25.6	13.0	4.6	13.4
Imports of goods and services	-21.0	2.4	8.5	3.1	8.4	13.6	8.1	9.0	4.5
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-15.5	-5.2	-0.6	-7.4	1.1	-2.8	0.5	2.8	-3.5
Net exports of goods and services	10.0	5.6	2.3	9.6	1.7	5.2	2.4	-1.8	4.2
Exports of goods and services	-6.5	7.0	7.3	11.2	6.3	13.9	7.3	3.1	6.8
Imports of goods and services	-16.5	1.4	5.1	1.6	4.6	8.7	5.0	4.9	2.6
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	13.3	6.1	1.0	2.5	3.1	-3.5	0.7	2.9	4.8
Unit labor costs in manufacturing (nominal, per hour)	23.6	-5.2	0.3	-5.4	-4.8	-7.2	3.1	1.2	5.1
Labor productivity in manufacturing (real, per hour)	-9.2	12.2	6.8	13.5	10.9	12.8	5.8	6.1	3.4
Labor costs in manufacturing (nominal, per hour)	11.8	6.2	7.5	7.4	5.5	4.7	9.1	7.4	8.7
Producer price index (PPI) in industry	-6.3	8.5	9.5	10.3	11.3	13.2	10.3	8.4	6.1
Consumer price index (here: HICP)	2.5	3.0	3.4	3.3	4.0	4.5	3.4	3.1	2.5
EUR per 1 BGN, + = BGN appreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	6.9	10.3	11.3	9.6	11.3	12.1	11.3	10.3	11.5
Employment rate (%, 15–64 years)	62.6	59.7	58.5	60.6	59.0	57.3	58.2	59.9	58.7
Key interest rate per annum (%) <sup>1</sup>	..	..	..	..	..	..	..	..	..
BGN per 1 EUR	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	4.2	6.4	12.3	8.4	6.4	7.4	8.0	10.3	12.3
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	1.7	5.0	7.9	4.8	5.0	4.5	6.2	8.5	7.9
Domestic credit of the banking system	6.6	5.1	7.3	7.0	5.1	5.7	3.8	4.5	7.3
<i>of which: claims on the private sector</i>	4.1	1.5	3.9	1.7	1.5	2.0	2.7	2.8	3.9
<i>claims on households</i>	2.3	-0.3	-0.2	0.3	-0.3	-0.3	-0.2	-0.1	-0.2
<i>claims on enterprises</i>	1.8	1.8	4.1	1.4	1.8	2.3	2.9	2.9	4.1
<i>claims on the public sector (net)</i>	2.5	3.7	3.4	5.3	3.7	3.7	1.1	1.6	3.4
Other assets (net) of the banking system	-4.1	-3.7	-3.0	-3.4	-3.7	-2.8	-2.0	-2.7	-3.0
<i>% of GDP, ESA 95</i>									
General government revenues	36.3	34.3	33.1	..	..	..	..	..	..
General government expenditures	40.6	37.4	35.2	..	..	..	..	..	..
General government balance	-4.3	-3.1	-2.1	..	..	..	..	..	..
Primary balance	-3.6	-2.5	-1.5	..	..	..	..	..	..
Gross public debt	14.6	16.3	16.3	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-23.0	32.9	30.0	44.5	32.7	57.7	28.1	22.6	19.7
Merchandise imports	-33.3	15.4	21.2	18.1	28.9	35.5	18.9	22.0	12.4
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-11.9	-7.7	-5.1	-2.0	-10.2	-2.5	-7.3	-2.0	-8.6
Services balance	3.7	5.6	5.9	14.8	1.1	1.7	5.0	14.0	1.6
Income balance (factor services balance)	-3.4	-3.1	-4.3	-3.8	-2.1	-4.5	-4.6	-4.4	-3.6
Current transfers	2.7	4.2	4.4	4.0	2.9	4.2	7.0	3.1	3.5
Current account balance	-8.9	-1.0	0.9	13.0	-8.3	-1.1	0.1	10.7	-7.2
Capital account balance	1.4	0.8	1.3	1.8	1.4	0.2	0.5	1.2	3.1
Foreign direct investment (net)	7.2	2.9	3.1	2.8	4.4	-1.1	0.9	2.8	9.1
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	108.3	102.8	91.9	104.3	102.8	98.4	95.9	93.3	91.9
Gross official reserves (excluding gold)	34.2	32.2	30.6	32.7	32.2	29.5	29.0	29.7	30.6
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	7.4	6.5	5.6	6.8	6.5	5.8	5.6	5.6	5.6
<i>EUR million, period total</i>									
GDP at current prices	34,933	36,052	38,483	9,973	10,240	8,166	9,605	10,760	9,953

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

<sup>1</sup> Not available in a currency board regime.

## 5 Czech Republic: Fiscal Austerity Drags Domestic Demand Down

Output growth decelerates, being driven by external demand; domestic demand negative

Growth in the Czech economy moderated further in the second half of 2011 (and was slightly negative in quarter-on-quarter terms in both quarters), bringing annual 2011 growth down to 1.7%.

In the review period, all components of domestic demand contributed negatively to growth. Net exports were thus the only positive growth contributor alongside a considerable deceleration of both imports and exports in 2011, with imports declining somewhat faster. Public consumption fell due to austerity measures, which, together with a subdued labor market, restrained private consumption. Gross fixed investment suffered from declining economic sentiment and a reduction in public investment.

The current account deficit decreased from 3.9% of GDP in 2010 to 2.9% of GDP in 2011, mainly due to an improvement in the trade balance, which, however, slowed down in the second half of the year. The surplus in the trade balance was overcompensated by a deficit in the income balance mainly due to FDI earnings (which were only partly reinvested in the country). Net FDI continued to cover about two-thirds of the current account deficit. However, FDI inflows apart from reinvested earnings were meager; declines in equity capital in some corporations and outflows of other capital in the third quarter even led to a temporary net FDI outflow.

Inflation picks up, koruna depreciates temporarily

Annual average HICP inflation reached 2.1% in 2011, picking up mainly in the last quarter owing to an early pass-through of the 4 percentage point VAT rate hike effective from 2012, higher administered prices (rents and energy) as well as food and fuel prices, combined with a weaker koruna. This development continued into 2012 (HICP rise by 4% year on year in February) and has also been reflected by the monetary policy-relevant inflation measure (CPI adjusted for first-round effects of changes to indirect taxes), which remains in the upper bound of Česká národní banka's (CNB's) inflation target of 2%  $\pm$  1 percentage point. The CNB has kept its policy rate constant at 0.75% since May 2010 in light of the lack of demand pressures and of a weakening economy.

The Czech koruna depreciated against the euro in the last quarter of 2011 due to global risk aversion and slowing output, but regained much of the losses, so that at the end of March 2012 it was 0.1% stronger than at the end of September 2011.

Consolidation in line with plans, further measures under way

Under the EDP commitment to bring the public deficit down to below 3% of GDP by 2013, the 2011 deficit target was set at 4.6% of GDP. The actual deficit in 2011 was considerably lower at 3.1% of GDP, mainly because public investment declined more than envisaged (-0.7% of GDP). For 2012, consolidation measures comprise an increase in excise taxes, a hike of the lower VAT rate from 10% to 14%, a freeze in public salaries (except for teachers and physicians) and lower public investment. The government is determined to stick to the planned 2012 deficit (3.5% of GDP) even if growth should be lower than expected. It would introduce further measures and has in fact already frozen some public expenditure. The government also plans to boost both VAT rates by 1 percentage point each (to 15% and 21%) rather than unifying the rate. Moreover, government will introduce a temporary additional personal income tax rate and will index pensions more slowly in 2013. However, these measures have yet to be adopted by the parliament, provided elections are not held early.

Table 5

**Main Economic Indicators: Czech Republic**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	-4.7	2.7	1.7	3.0	3.3	3.1	2.1	1.3	0.3
Private consumption	-0.4	0.6	-0.5	0.6	0.9	-0.2	-0.4	-0.6	-0.7
Public consumption	3.8	0.6	-1.4	0.6	-1.0	-0.1	-1.1	-2.5	-1.7
Gross fixed capital formation	-11.5	0.1	-1.2	3.8	4.6	-2.1	1.4	-2.1	-1.7
Exports of goods and services	-10.0	16.4	11.0	15.8	16.4	19.2	12.9	8.5	4.4
Imports of goods and services	-11.6	16.0	7.5	19.7	15.7	16.9	10.0	3.5	1.4
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-5.5	1.8	-0.9	4.5	2.3	0.7	-0.4	-2.0	-1.8
Net exports of goods and services	0.8	0.9	2.6	-1.5	1.0	2.4	2.5	3.4	2.1
Exports of goods and services	-6.5	9.8	7.4	9.4	10.2	12.8	8.7	5.7	3.1
Imports of goods and services	-7.2	8.9	4.9	10.9	9.2	10.5	6.3	2.3	1.0
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	1.9	-0.3	0.1	2.4	0.2	-0.0	0.6	-0.3	0.4
Unit labor costs in manufacturing (nominal, per hour)	11.6	-7.5	..	-2.0	-16.3	-9.8	-3.8	4.1	..
Labor productivity in manufacturing (real, per hour)	-5.5	9.5	7.2	6.6	23.8	15.0	10.0	1.9	3.4
Labor costs in manufacturing (nominal, per hour)	5.5	1.1	..	4.5	3.7	3.7	5.8	6.1	..
Producer price index (PPI) in industry	-1.5	0.1	3.7	2.0	1.9	3.2	3.1	3.7	4.9
Consumer price index (here: HICP)	0.6	1.2	2.1	1.6	2.0	1.9	1.8	2.0	2.8
EUR per 1 CZK, + = CZK appreciation	-5.7	4.6	2.9	2.7	4.6	6.2	5.2	2.2	-2.0
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	6.7	7.4	6.8	7.1	7.0	7.3	6.8	6.6	6.5
Employment rate (%, 15–64 years)	65.4	65.0	65.7	65.4	65.5	65.0	65.7	66.1	66.1
Key interest rate per annum (%)	1.5	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8
CZK per 1 EUR	26.5	25.3	24.6	24.9	24.8	24.4	24.3	24.4	25.3
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	0.2	1.9	2.8	3.9	1.9	1.3	-0.8	1.8	2.8
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	1.0	0.4	-0.8	4.6	0.4	-3.3	-5.7	-4.8	-0.8
Domestic credit of the banking system	4.6	4.0	7.9	3.1	4.0	5.4	5.7	10.2	7.9
<i>of which: claims on the private sector</i>	0.3	2.1	4.1	0.4	2.1	3.2	3.9	4.5	4.1
<i>claims on households</i>	3.8	2.7	2.2	3.0	2.7	2.6	2.5	2.2	2.2
<i>claims on enterprises</i>	-3.5	-0.6	1.9	-2.6	-0.6	0.6	1.4	2.3	1.9
<i>claims on the public sector (net)</i>	4.3	1.9	3.7	2.7	1.9	2.2	1.8	5.7	3.7
Other assets (net) of the banking system	-5.4	-2.6	-4.3	-3.8	-2.6	-0.8	-0.8	-3.5	-4.3
<i>% of GDP, ESA 95</i>									
General government revenues	39.1	39.3	40.3	..	..	..	..	..	..
General government expenditures	44.9	44.1	43.4	..	..	..	..	..	..
General government balance	-5.8	-4.8	-3.1	..	..	..	..	..	..
Primary balance	-4.5	-3.4	-1.7	..	..	..	..	..	..
Gross public debt	34.4	38.1	41.2	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-16.3	21.3	15.7	21.3	21.9	27.8	18.3	11.7	6.8
Merchandise imports	-19.2	24.1	14.0	27.8	25.6	28.6	17.6	9.3	3.7
<i>% of GDP (based on EUR), period total</i>									
Trade balance	2.3	1.4	2.5	-0.5	0.4	3.8	3.0	0.8	2.3
Services balance	2.0	2.0	1.7	1.6	1.7	1.6	2.1	1.9	1.3
Income balance (factor services balance)	-6.7	-7.6	-7.2	-12.0	-5.9	-3.2	-11.6	-8.5	-5.0
Current transfers	-0.0	0.2	0.1	-0.2	0.2	0.4	0.6	-0.3	-0.4
Current account balance	-2.4	-3.9	-2.9	-11.1	-3.5	2.6	-5.9	-6.0	-1.7
Capital account balance	1.4	0.9	0.4	1.5	0.6	0.1	-0.0	0.3	1.1
Foreign direct investment (net)	1.0	2.5	2.0	3.9	1.3	1.5	3.6	-0.4	3.2
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	43.7	47.2	46.9	47.7	47.2	46.0	46.7	47.6	46.9
Gross official reserves (excluding gold)	20.2	21.0	19.9	21.6	21.0	19.4	19.1	19.2	19.9
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	4.3	3.9	3.4	4.2	3.9	3.4	3.3	3.3	3.4
<i>EUR million, period total</i>									
GDP at current prices	141,602	149,401	154,882	38,477	39,794	36,254	39,529	39,591	39,508

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

## 6 Hungary: Some Moves to Unlock Precautionary International Financial Assistance

Policy issues delay negotiations with EU and IMF, but fiscal consolidation is under way

One of the most important events over the past half year was the surprise application by the Hungarian authorities for precautionary financial assistance from the IMF and the EU in mid-November 2011. However, preparatory negotiations came to a halt soon after they had started, as the Hungarian government refused requests to reconsider planned constitutional legislation concerning major economic issues. Following the downgrade of Hungary's foreign currency debt rating to junk status and financial market tensions in late 2011 and early 2012, the government struck a more conciliatory tone from early January 2012 and signaled its readiness to reconsider some controversial issues (independence of the central bank and the data protection authorities, measures affecting the judiciary). It remains to be seen whether the intended changes are sufficient to unlock negotiations.

In late January 2012, the EU Council established that Hungary had failed to take sustainable action to bring the budget deficit below 3% of GDP in 2011.<sup>8</sup> Moreover, in the Council's view, the reference value would again be respected only thanks to one-off measures in 2012, and would possibly be missed in 2013. In mid-March 2012, the Council also suspended around 0.5% of GDP cohesion fund appropriations from 2013 if Hungary does not make – by mid-September 2012<sup>9</sup> – the necessary fiscal effort to meet the deficit target of 2.5% of GDP in 2012 and does not take structural measures to ensure that the deficit in 2013 remains well below 3%.

Inflation jumps in early 2012 following indirect tax hikes and weaker exchange rate

After climbing gradually during the second half of 2011, inflation accelerated sharply to 5.8% in February 2012. The increase reflected indirect tax hikes that took effect in early 2012 and a weaker exchange rate. In November and December 2011, the MNB raised its policy rate in two steps by 50 basis points each to 7% in response to a worsening of Hungary's risk perception and inflation outlook. Taking into account the improvement in risk perception since early January and trusting the government's commitment to fiscal consolidation and its readiness to conclude an agreement with the IMF and the EU, the MNB kept the policy rate steady during the first quarter of 2012.

GDP growth surprisingly strong in the fourth quarter, but slowdown expected

GDP grew by 1.4% in the final quarter of 2011, bringing annual average growth to 1.7%. However, growth in the second half of 2011 was to a substantial extent driven by agriculture, which rebounded from a weak 2010 base. Domestic demand contracted markedly during the second half of 2011, mostly on account of the ongoing decline of investment spending, but consumption activity also contracted. Consumption was depressed by poor labor market conditions, income uncertainty, increased debt servicing costs, a sharp deterioration of consumer confidence and fiscal austerity. Investment activity continued to suffer from weak demand conditions, uncertainties regarding the policy environment and a steep decline in business confidence. Tight credit conditions adversely affected both consumption and investment activity. In this respect, the MNB's new two-year lending facility (along with the broadening of acceptable securities in its open market operations) may support lending activity in the coming period.

<sup>8</sup> The surplus in 2011 is mainly due to substantial one-off revenues (see *Recent Economic Developments, FEEI Q4/2011*).

<sup>9</sup> However, the Council may lift the suspension of cohesion funds in June 2012 if Hungary has applied the necessary corrective measures by then.

Table 6

**Main Economic Indicators: Hungary**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	-6.8	1.3	1.7	1.8	1.9	2.5	1.5	1.4	1.4
Private consumption	-6.2	-2.2	0.0	0.6	-0.7	-0.6	0.2	0.3	0.1
Public consumption	-0.6	-2.1	-0.4	1.0	-5.3	2.5	-1.3	-1.5	-1.0
Gross fixed capital formation	-11.0	-9.7	-5.4	-6.8	-12.9	-1.5	-7.6	-7.5	-4.4
Exports of goods and services	-10.2	14.3	8.4	14.0	12.7	14.1	8.6	6.7	4.9
Imports of goods and services	-14.8	12.8	6.3	13.9	11.6	14.2	6.7	3.8	1.7
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-10.4	-0.5	-0.5	0.9	0.6	1.5	-0.5	-1.3	-1.5
Net exports of goods and services	3.6	1.8	2.2	0.8	1.3	0.9	2.1	2.8	2.9
Exports of goods and services	-8.4	11.1	7.3	10.8	10.0	12.4	7.4	5.7	4.2
Imports of goods and services	-12.0	9.3	5.1	10.0	8.7	11.5	5.3	3.0	1.4
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	2.7	-3.5	4.3	-2.7	-3.9	2.6	5.2	6.2	3.4
Unit labor costs in manufacturing (nominal, per hour)	9.2	-9.6	4.4	-8.8	-2.7	-0.6	8.1	7.5	2.9
Labor productivity in manufacturing (real, per hour)	-4.8	10.2	1.3	10.3	5.2	6.8	-2.2	-1.9	2.9
Labor costs in manufacturing (nominal, per hour)	3.2	0.0	5.8	0.6	2.4	6.1	5.7	5.5	5.9
Producer price index (PPI) in industry	4.6	6.3	2.6	10.5	9.8	5.2	0.0	-0.4	5.6
Consumer price index (here: HICP)	4.0	4.7	3.9	3.6	4.3	4.3	3.9	3.4	4.1
EUR per 1 HUF, + = HUF appreciation	-10.3	1.9	-1.4	-3.9	-1.8	-1.4	3.1	2.7	-9.1
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	10.1	11.2	11.0	10.9	10.9	11.7	10.9	10.8	10.7
Employment rate (%, 15–64 years)	55.4	55.4	55.8	56.0	55.8	54.6	55.8	56.4	56.5
Key interest rate per annum (%)	8.6	5.5	6.0	5.3	5.4	5.9	6.0	6.0	6.3
HUF per 1 EUR	280.5	275.4	279.3	282.4	275.7	272.5	266.4	275.0	303.4
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	4.4	3.0	5.9	2.6	3.0	1.5	-1.0	5.3	5.9
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	13.4	4.2	17.6	3.4	4.2	4.6	4.8	16.7	17.6
Domestic credit of the banking system	-3.3	6.4	-3.1	6.2	6.4	-1.5	-10.1	-6.5	-3.1
<i>of which: claims on the private sector</i>	-3.7	3.7	-0.6	1.1	3.7	-2.3	-7.4	1.6	-0.6
<i>claims on households</i>	0.8	4.6	-0.5	3.4	4.6	0.8	-2.2	2.1	-0.5
<i>claims on enterprises</i>	-4.6	-0.9	0.4	-2.3	-0.9	-3.1	-5.3	0.0	0.4
<i>claims on the public sector (net)</i>	0.4	2.7	-2.6	5.1	2.7	0.8	-2.6	-8.1	-2.6
Other assets (net) of the banking system	-5.7	-7.7	-8.5	-7.0	-7.7	-1.6	4.3	-4.9	-8.5
<i>% of GDP, ESA 95</i>									
General government revenues	46.9	45.2	52.9	..	..	..	..	..	..
General government expenditures	51.5	49.4	48.6	..	..	..	..	..	..
General government balance	-4.6	-4.2	4.3	..	..	..	..	..	..
Primary balance	0.1	-0.1	8.3	..	..	..	..	..	..
Gross public debt	79.8	81.4	80.6	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-20.4	20.3	11.6	21.7	20.4	23.6	12.9	8.9	3.0
Merchandise imports	-24.9	19.5	10.9	22.5	20.7	21.7	12.7	7.5	3.6
<i>% of GDP (based on EUR), period total</i>									
Trade balance	2.6	3.3	4.0	2.3	3.3	5.8	4.1	3.2	3.1
Services balance	2.2	3.0	3.2	3.8	2.2	2.0	4.2	3.8	2.7
Income balance (factor services balance)	-5.3	-5.5	-6.3	-5.4	-4.8	-6.2	-6.8	-6.1	-6.0
Current transfers	0.5	0.4	0.5	0.6	0.1	-0.1	0.3	0.8	0.9
Current account balance	-0.2	1.2	1.4	1.2	0.8	1.5	1.9	1.7	0.6
Capital account balance	1.2	1.8	2.1	2.1	0.8	2.0	1.2	2.7	2.7
Foreign direct investment (net)	0.1	0.7	-0.1	1.8	3.7	-0.9	-2.4	-2.0	4.8
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	149.7	142.4	130.6	144.3	142.4	143.0	141.6	137.0	130.6
Gross official reserves (excluding gold)	33.4	34.6	37.4	34.9	34.6	36.4	37.0	38.0	37.4
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	5.5	5.2	5.3	5.4	5.2	5.3	5.3	5.5	5.3
<i>EUR million, period total</i>									
GDP at current prices	91,625	97,069	100,709	24,159	26,890	22,903	25,781	26,145	25,880

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

## 7 Poland: Monetary Policy Council Adopts Tightening Bias

Fixed investment grows at double-digit rate, external balance is supported by currency depreciation

Poland posted annual GDP growth of 4.3% in 2011, with substantial contributions by both exports and domestic demand. Private consumption and (contrary to 2010) gross fixed capital formation made a roughly equally large contribution, with the contribution of private consumption falling and that of gross fixed capital formation rising in the course of the year. Private consumption growth remained clearly below GDP growth; higher labor force participation, low employment growth and low real average wage growth were its main pillars. The higher activity rate caused the unemployment rate to remain at about 10%. Fiscal consolidation measures (e.g. hikes in indirect tax rates and the freeze of the nominal wage fund in large parts of the public sector) dampened real wage growth and took their toll on consumption. The deceleration of employment growth and some worsening of confidence further weakened consumption growth toward the end of the year.

Fixed investment grew by 8.5% in 2011 and by nearly 11% in the fourth quarter of 2011, after it had stagnated in 2010. The take-off of investment caused employment in the enterprise sector to grow particularly strongly. Sizeable public investment, the availability of EU funds (including cofinancing), the stable and robust profitability and liquidity positions of enterprises, faster growth of corporate loans and still high growth of housing loans were factors that drove investment.

Export growth outpaced import growth in 2011, leading to a positive growth contribution of net exports and a lower current account deficit (fully covered by the capital account surplus and net FDI inflows). These results reflected mainly developments in the second half of 2011, when strong real currency depreciation (deflated by unit labor costs in the manufacturing sector) not only contained import growth, but also stimulated foreign sales and new export orders despite weak foreign demand.

Inflation remains above the upper end of the tolerance band, leading to hawkish Monetary Policy Council stance

After the zloty had depreciated against the euro from PLN 4.0 in July to PLN 4.5 per euro in December, it recovered to PLN 4.1 in March 2012. The previous depreciation further exacerbated the impact of rising international energy prices. Thus, after decelerating from June to September 2011, annual inflation peaked in December (4.5% HICP) and November 4.8% (CPI). However, also core inflation rose to a peak in December 2011, which resulted from sustained above-average rises of prices for processed food (including alcohol and tobacco) and from increases of tax rates and administered prices (linked to fiscal consolidation). After decelerating to 4.1% (HICP and CPI) in January 2012, inflation rebounded to 4.4% (HICP) and 4.3% (CPI) in February, following a boost in excise tax rates on tobacco products.

With headline inflation above the upper end of the 1 percentage point tolerance band around the inflation target (2.5% CPI) and the expectation of a mild slowdown, which increases the probability of inflation remaining above the target in the medium term, the Polish monetary policy council (MPC) in early April announced that it would consider tightening in the near future, unless signs of considerable weakening appear.

Fiscal policy aims at preventing an excessive deficit in 2012, in line with EDP timelines

Consolidation measures helped lower the fiscal deficit to 5.1% of GDP in 2011 from 7.8% in 2010. For 2012, the Commission projected the deficit in January at 3.3% of GDP, based on the revised 2012 Budget Law adopted by the new government in December. With a deficit of close to 3% and a debt ratio below 60%, the cost of a systemic pension reform can be taken into account when assessing the correction of an excessive deficit. As the direct net cost of such a reform was estimated at 0.6% of GDP in 2012, the Commission considered that no further policy steps were needed at present.

Table 7

**Main Economic Indicators: Poland**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	1.6	3.9	4.3	4.9	4.2	4.1	4.6	4.3	4.4
Private consumption	2.0	3.2	3.1	4.4	3.0	3.2	4.0	3.0	2.0
Public consumption	2.1	4.1	-1.3	6.2	6.5	-0.1	-1.3	-4.5	0.4
Gross fixed capital formation	-1.2	-0.2	8.3	2.8	2.0	4.0	7.0	8.5	10.4
Exports of goods and services	-6.8	12.1	7.5	10.5	9.9	9.2	4.6	8.6	7.7
Imports of goods and services	-12.4	13.9	5.8	12.5	13.4	8.5	4.3	5.3	5.2
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-1.1	4.6	3.7	5.7	5.6	3.9	4.6	3.0	3.5
Net exports of goods and services	2.7	-0.7	0.7	-0.8	-1.4	0.3	0.1	1.3	0.9
Exports of goods and services	-2.7	4.8	3.2	4.3	3.7	3.9	2.0	3.7	3.1
Imports of goods and services	-5.5	5.5	2.5	5.2	5.1	3.6	1.9	2.4	2.2
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	2.4	1.9	1.0	0.9	2.6	0.9	0.8	1.7	0.4
Unit labor costs in manufacturing (nominal, per hour)	0.5	-9.2	0.6	-8.6	-6.3	0.5	1.6	2.3	-2.0
Labor productivity in manufacturing (real, per hour)	4.2	11.3	4.0	12.5	7.3	2.6	4.4	1.3	7.6
Labor costs in manufacturing (nominal, per hour)	4.6	1.3	4.6	2.8	0.6	3.1	6.0	3.7	5.5
Producer price index (PPI) in industry	3.9	2.3	7.5	4.2	5.2	7.7	7.1	7.1	8.2
Consumer price index (here: HICP)	4.0	2.7	3.9	2.1	2.7	3.6	4.0	3.7	4.2
EUR per 1 PLN, + = PLN appreciation	-18.8	8.4	-3.0	4.7	5.3	1.2	1.4	-3.4	-10.3
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	8.3	9.7	9.8	9.2	9.4	10.2	9.6	9.5	9.9
Employment rate (%, 15–64 years)	59.4	59.3	59.7	60.0	59.6	58.9	59.7	60.2	59.9
Key interest rate per annum (%)	3.8	3.5	4.2	3.5	3.5	3.7	4.2	4.5	4.5
PLN per 1 EUR	4.3	4.0	4.1	4.0	4.0	3.9	4.0	4.2	4.4
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	8.1	8.8	12.5	8.9	8.8	10.9	7.2	10.2	12.5
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	3.2	3.0	6.4	5.2	3.0	2.1	-3.7	2.5	6.4
Domestic credit of the banking system	9.2	10.3	14.0	9.9	10.3	12.3	8.1	14.1	14.0
<i>of which: claims on the private sector</i>	6.7	8.0	13.1	7.0	8.0	9.7	8.5	13.5	13.1
<i>claims on households</i>	6.8	8.3	7.4	7.5	8.3	7.9	5.9	9.0	7.4
<i>claims on enterprises</i>	-0.2	-0.2	5.7	-0.5	-0.2	1.8	2.6	4.5	5.7
<i>claims on the public sector (net)</i>	2.5	2.3	0.9	3.0	2.3	2.6	-0.5	0.6	0.9
Other assets (net) of the banking system	-4.3	-4.5	-7.9	-6.2	-4.5	-3.5	2.9	-6.4	-7.9
<i>% of GDP, ESA 95</i>									
General government revenues	37.2	37.5	38.5	..	..	..	..	..	..
General government expenditures	44.6	45.3	43.6	..	..	..	..	..	..
General government balance	-7.4	-7.8	-5.1	..	..	..	..	..	..
Primary balance	-4.7	-5.2	-2.4	..	..	..	..	..	..
Gross public debt	50.9	54.8	56.3	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-15.8	22.9	11.3	23.1	20.7	16.8	12.0	10.0	7.2
Merchandise imports	-24.4	25.0	11.5	25.2	25.5	17.5	16.0	8.6	5.1
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-1.7	-2.5	-2.7	-2.8	-3.3	-2.1	-3.4	-2.5	-2.9
Services balance	1.1	0.7	1.2	0.4	0.6	1.1	1.6	1.3	0.7
Income balance (factor services balance)	-3.8	-3.6	-3.9	-4.0	-3.4	-3.3	-4.4	-4.4	-3.5
Current transfers	0.5	0.8	1.2	0.4	-0.1	0.8	2.5	0.8	0.5
Current account balance	-3.9	-4.6	-4.3	-5.9	-6.3	-3.5	-3.6	-4.9	-5.1
Capital account balance	1.6	1.8	2.2	1.5	2.8	1.9	1.5	1.6	3.7
Foreign direct investment (net)	1.9	0.7	1.8	-0.5	-0.1	2.1	-0.1	3.4	1.8
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	62.4	66.6	67.4	67.3	66.6	67.8	68.4	66.8	67.4
Gross official reserves (excluding gold)	16.9	18.8	19.4	20.1	18.8	19.8	19.5	18.8	19.4
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	5.1	5.1	5.0	5.6	5.1	5.3	5.2	4.9	5.0
<i>EUR million, period total</i>									
GDP at current prices	311,335	354,642	369,621	87,549	100,184	88,503	93,332	90,593	97,194

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

## 8 Romania: Nascent Recovery Challenged by Weaker External Environment

Bumper harvest and strengthening domestic demand counter dwindling external demand in the second half of 2011

The Romanian economy continued to recover moderately in the second half of 2011, bringing full-year growth to 2.5%. In particular in the third quarter, exceptionally good agricultural output drove up GDP growth decisively. As the positive effects of the harvest tapered off and external demand slowed down, GDP shrank slightly in quarter-on-quarter terms in the final quarter, yielding a year-on-year growth rate of +1.9%. While the contribution of net exports to GDP growth was negative in the second half of 2011, domestic demand strengthened. Supported by real wage growth, private consumption started to grow again, while gross fixed capital formation expanded relatively briskly from a low base, partly reflecting a revival of construction activity.

Disinflation allows the central bank to cut its policy rate

Annual inflation declined continuously and reached the central bank's target range (3%  $\pm$  1 percentage point) already at the end of the third quarter 2011, earlier than the Banca Națională României (BNR) had originally expected. In February 2012, inflation fell further to 2.7% year on year. Favorable food price developments thanks to the good harvest were not the sole drivers of disinflation, as core inflation came down as well. Amidst receding inflationary pressures, the BNR cut its key policy rate in four steps and by a total of 100 basis points to 5.25% from November 2011 through March 2012.

Persistent current account deficit, signs of deterioration in the second half of 2011

In 2011, the current account deficit increased slightly to 4.2% of GDP, whereas net FDI inflows decreased to cover only a third of the current account gap. Some signs of deterioration in the current account position were seen in the second half of 2011. Most importantly, slowing external demand, recovering domestic demand and rising unit labor costs in the manufacturing sector weighed on the trade deficit. In contrast to the first half of 2011, merchandise import growth exceeded merchandise export growth in the second half of 2011. Moreover, the surplus in the current transfers balance declined year on year in the second half of 2011, which was also in contrast to the first half of the year (mainly due to lower remittances from abroad). Only the services and income balances improved slightly year on year in the second half of 2011.

Reform agenda meets with public protests, but precautionary support program on track

The precautionary IMF/EU program stayed on track, as overall policy implementation remained satisfactory. Yet, January's public protests against the health sector reform plan highlighted challenges in the design and in the implementation of complex reform measures and finally triggered a government reshuffle. The new government confirmed its commitment to the economic program under the precautionary IMF/EU arrangement. In line with the program, the government is targeting a budget deficit of 1.9% of GDP in cash terms in 2012, following a deficit of 4.2% of GDP in 2011 (corresponding to 5.2% in ESA 95 terms), below the program target of 4.4% of GDP. However, ahead of parliamentary elections in November 2012, risks of policy reversals may increase, in particular as suggested by recent statements by politicians about forthcoming public sector wage hikes. In March 2012, the IMF completed the fourth review under the program and made an additional amount of EUR 500 million available for disbursement. Romania currently has access to EUR 2 billion under the IMF precautionary Stand-By Arrangement. Moreover, up to EUR 1.4 billion could be activated through precautionary EU medium-term financial assistance. While Romania does not intend to draw on these funds, the IMF/EU support program continues to be an important anchor.

Table 8

**Main Economic Indicators: Romania**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	-6.6	-1.7	2.5	-2.2	-1.0	1.7	1.4	4.4	1.9
Private consumption	-10.3	-0.4	1.3	-0.3	0.1	-1.3	-0.7	3.6	2.7
Public consumption	2.9	-4.1	-3.6	-2.1	-3.9	-6.7	-2.8	-0.7	-4.0
Gross fixed capital formation	-28.1	-2.1	6.2	-4.8	6.0	-2.1	-1.4	11.4	10.3
Exports of goods and services	-6.2	15.1	10.5	12.6	18.7	21.8	8.2	9.2	3.8
Imports of goods and services	-21.4	12.7	11.5	8.9	13.1	16.9	10.6	12.8	5.7
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-13.6	-1.6	3.2	-2.4	1.0	1.6	1.7	6.6	4.2
Net exports of goods and services	7.0	-0.0	-0.8	-0.3	0.1	-0.5	-3.7	-3.6	-1.3
Exports of goods and services	-1.9	4.3	3.5	4.1	5.2	11.0	3.6	3.5	1.3
Imports of goods and services	-8.9	4.3	4.3	4.4	5.0	11.4	7.3	7.0	2.5
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	3.1	7.5	1.9	7.9	7.7	1.0	2.6	4.1	0.2
Unit labor costs in manufacturing (nominal, per hour)	1.5	-8.3	4.3	-5.8	-4.0	-5.0	7.1	5.3	11.0
Labor productivity in manufacturing (real, per hour)	13.3	15.9	2.9	14.0	11.8	10.7	1.2	2.5	-1.7
Labor costs in manufacturing (nominal, per hour)	14.1	6.7	7.7	7.4	7.4	5.2	8.3	7.9	9.2
Producer price index (PPI) in industry	1.9	6.3	8.9	7.2	8.5	10.7	8.7	8.7	7.6
Consumer price index (here: HICP)	5.6	6.1	5.8	7.5	7.8	7.5	8.3	4.2	3.4
EUR per 1 RON, + = RON appreciation	-13.1	0.7	-0.7	-0.7	-0.5	-2.6	1.1	-0.1	-1.1
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	7.2	7.6	7.7	7.2	7.6	7.8	7.5	7.5	8.0
Employment rate (%, 15–64 years)	58.6	58.8	58.5	60.2	57.9	58.0	58.8	59.1	57.9
Key interest rate per annum (%)	9.1	6.5	6.2	6.3	6.3	6.3	6.3	6.3	6.1
RON per 1 EUR	4.2	4.2	4.2	4.3	4.3	4.2	4.1	4.3	4.3
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	9.0	6.9	6.6	6.5	6.9	3.3	2.5	6.8	6.6
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	5.0	0.8	-1.4	4.3	0.8	-7.1	-1.8	0.7	-1.4
Domestic credit of the banking system	12.6	13.8	11.4	12.2	13.8	12.2	3.1	12.7	11.4
<i>of which: claims on the private sector</i>	1.2	5.2	6.8	5.1	5.2	2.6	1.7	7.1	6.8
<i>claims on households</i>	0.6	1.0	1.1	1.7	1.0	-0.2	-1.2	0.9	1.1
<i>claims on enterprises</i>	0.6	4.2	5.7	3.4	4.2	2.8	2.9	6.1	5.7
<i>claims on the public sector (net)</i>	11.4	8.6	4.7	7.1	8.6	9.5	1.4	5.7	4.7
Other assets (net) of the banking system	-8.7	-7.7	-3.4	-10.0	-7.7	-1.8	1.3	-6.6	-3.4
<i>% of GDP, ESA 95</i>									
General government revenues	32.1	33.4	32.5	..	..	..	..	..	..
General government expenditures	41.1	40.2	37.7	..	..	..	..	..	..
General government balance	-9.0	-6.8	-5.2	..	..	..	..	..	..
Primary balance	-7.5	-5.3	-3.7	..	..	..	..	..	..
Gross public debt	23.6	30.5	33.3	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-13.8	28.5	20.5	27.6	32.8	39.8	18.3	18.0	10.1
Merchandise imports	-31.9	20.4	21.4	17.4	22.8	30.9	21.1	21.5	14.2
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-5.8	-4.8	-5.5	-3.6	-4.0	-4.0	-8.0	-4.9	-5.2
Services balance	-0.2	-0.4	0.3	-0.2	0.0	-0.1	0.3	-0.1	0.7
Income balance (factor services balance)	-1.6	-1.6	-1.7	-2.5	-0.7	-2.8	-3.1	-1.3	-0.4
Current transfers	3.5	2.8	2.6	3.8	2.9	3.0	3.0	1.9	2.7
Current account balance	-4.2	-4.0	-4.4	-2.5	-1.8	-3.9	-7.8	-4.4	-2.2
Capital account balance	0.5	0.2	0.3	0.2	0.2	0.4	0.2	0.1	0.4
Foreign direct investment (net)	3.1	1.9	1.4	3.4	-0.5	1.9	1.4	1.6	0.9
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	68.7	74.7	72.3	74.5	74.7	75.5	76.4	74.7	72.3
Gross official reserves (excluding gold)	23.9	26.2	24.4	26.7	26.2	26.1	26.7	25.4	24.4
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	7.8	7.7	6.7	8.1	7.7	7.4	7.5	7.0	6.7
<i>EUR million, period total</i>									
GDP at current prices	118,189	123,737	136,192	33,629	38,539	24,905	31,551	37,318	42,417

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

## 9 Croatia: Renewed Fiscal Consolidation Efforts ahead of EU Entry in Mid-2013

Domestic demand continues to weigh on economic growth

Against the background of a gradual slowdown of global economic activity, economic conditions remained weak in the latter half of 2011. As a result, GDP stagnated in the full year 2011. Domestic demand stayed anemic. Private and public consumption continued to be subdued, given adverse labor market conditions, ongoing household debt restructuring and fiscal constraints. At the same time, investment activity remained depressed due to persistently low business confidence, moderate FDI inflows and limited fiscal leeway. In turn, net exports contributed positively to economic growth, as imports contracted faster than exports, a pattern also seen in 2009 during the height of the global financial crisis.

Current account position improves in the second half of 2011, external debt ratio stabilizes

Weak domestic demand and a good tourism season helped Croatia's current account position improve in the second half of 2011. Given the related lower financing needs and accelerating net FDI inflows, Croatia's gross external debt stabilized in 2011, even falling marginally to 99.7% of GDP as at end-2011. Rising foreign debt levels of the public and banking sectors were by far compensated by the decreasing foreign indebtedness of the corporate sector.

Despite downward pressures on the kuna since summer 2011 due to changing net capital inflows related to foreign debt repayments of the corporate sector and subsequent interventions of the central bank, the country's foreign exchange reserves stayed broadly stable at 24.4% of GDP at the end of 2011. In early 2012, Hrvatska narodna banka (HNB) continued to intervene (three times) to support the kuna. In April 2012, the HNB decided to reduce the mandatory reserve requirements from 15% to 13.5% to promote economic activity and improve the country's balance of payments via more favorable private sector credit terms.

Despite good liquidity conditions, the inflationary environment remained benign in 2011, when consumer price inflation averaged a moderate 2.3%, given sluggish domestic demand. Inflationary pressures remained low at the start of 2012, but a VAT increase as of March will probably lead to an uptick of inflation in the coming months.

2012 budget prepares the ground for fiscal consolidation

Given stagnating economic activity and underperforming budget revenues, public finances remained under pressure in 2011, with the general government budget deficit climbing to 5.5% of GDP. Based on (rather optimistic) economic growth projections of 0.8%, the 2012 budget targets a deficit of 3.8% of GDP. It contains several consolidation measures of the new administration that took office in early 2012. The most important measures on the revenue side comprise the increase of the general VAT rate from 23% to 25% as of March 1, 2012, and the reduction of health insurance contributions from 15% to 13% as of May 1, 2012. Expenditure-side measures (of some 2% of GDP) envisage major expenditure cuts mainly in the areas of employee compensation in the public sector and state subsidies.

According to Croatia's 2012 Pre-Accession Economic Programme, the budget deficit is forecast to fall to 3.3% of GDP in 2013 (Croatia's EU entry is scheduled for July 1, 2013) and 2.6% of GDP in 2014, mainly driven by consolidation measures on the expenditure side.

Given the rising budget deficit in 2011 and the assumption of state guarantees issued for shipyard debt amounting to some 3.5% of GDP, Croatia's public debt rose to 45.8% of GDP (excluding state guarantees of some 18% of GDP) by end-2011.

Table 9

**Main Economic Indicators: Croatia**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	-6.0	-1.2	-0.0	0.3	-0.6	-1.0	0.4	0.7	-0.4
Private consumption	-8.2	-0.8	0.2	1.9	1.1	-0.0	0.6	0.0	0.1
Public consumption	0.0	-0.9	-0.2	-1.0	0.7	-1.0	1.8	-0.4	-1.4
Gross fixed capital formation	-11.8	-11.3	-7.2	-9.5	-8.0	-6.7	-7.3	-8.4	-6.1
Exports of goods and services	-17.3	6.0	2.2	4.1	10.8	-3.7	5.1	7.1	-3.5
Imports of goods and services	-20.4	-1.3	1.0	3.4	1.1	3.7	3.5	0.1	-3.0
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-9.0	-3.8	-0.5	-0.0	-3.8	1.7	0.0	-3.0	-0.3
Net exports of goods and services	3.0	2.6	0.4	0.7	3.1	-2.5	0.4	3.5	-0.1
Exports of goods and services	-7.2	2.1	0.8	1.9	3.6	-1.1	1.8	3.5	-1.3
Imports of goods and services	-10.2	-0.5	0.4	1.2	0.4	1.4	1.4	0.0	-1.2
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	..	..	..	..	..	..	..	..	..
Unit wage costs in manufacturing (nominal, per hour)	12.4	2.0	..	-0.1	3.8	4.6	-1.2	2.9	-0.5
Labor productivity in manufacturing (real, per hour)	-3.6	-3.2	..	-2.1	-6.8	-4.6	2.8	1.6	5.5
Gross wages in manufacturing (nominal, per hour)	7.9	-1.0	..	-2.1	-3.3	-0.3	1.6	4.6	5.0
Producer price index (PPI) in industry	-0.4	4.3	6.4	3.8	5.1	6.3	6.5	6.3	6.4
Consumer price index (here: CPI)	2.4	1.0	2.3	1.1	1.5	2.2	2.3	2.0	2.4
EUR per 1 HRK, + = HRK appreciation	-1.6	0.7	-2.0	1.0	-1.2	-1.6	-1.9	-2.8	-1.7
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	9.3	12.1	13.9	11.8	12.5	14.7	13.8	12.6	14.3
Employment rate (%, 15–64 years)	56.6	54.0	52.4	53.9	53.6	52.4	52.3	53.2	51.5
Key interest rate per annum (%)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
HRK per 1 EUR	7.3	7.3	7.4	7.3	7.4	7.4	7.4	7.5	7.5
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	-0.9	4.4	3.5	3.8	4.4	3.3	3.5	3.7	3.5
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	1.5	-0.4	-4.5	6.6	-0.4	-0.5	-2.4	-5.2	-4.5
Domestic credit of the banking system	-0.5	8.6	11.4	0.4	8.6	6.6	8.3	12.0	11.4
<i>of which: claims on the private sector</i>	-0.6	7.0	5.7	5.3	7.0	6.2	6.8	6.8	5.7
<i>claims on households</i>	-1.6	2.1	0.5	0.9	2.1	1.4	1.7	1.7	0.5
<i>claims on enterprises</i>	1.0	4.9	5.2	4.3	4.9	4.8	5.1	5.1	5.2
<i>claims on the public sector (net)</i>	0.1	1.6	5.7	-4.9	1.6	0.4	1.5	5.2	5.7
Other assets (net) of the banking system	-1.8	-3.7	-3.4	-3.1	-3.7	-2.8	-2.4	-3.1	-3.4
<i>% of GDP, ESA 95</i>									
General government revenues	36.4	35.0	34.3	..	..	..	..	..	..
General government expenditures	40.5	39.9	39.8	..	..	..	..	..	..
General government balance	-4.1	-4.9	-5.5	..	..	..	..	..	..
Primary balance	-2.4	-2.9	-3.3	..	..	..	..	..	..
Gross public debt	35.1	41.2	45.8	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-21.3	18.1	8.0	18.5	26.1	10.3	11.1	13.7	-1.9
Merchandise imports	-26.8	-0.2	7.2	6.3	4.3	13.8	11.1	5.4	-0.2
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-16.2	-13.0	-13.9	-13.8	-13.1	-14.4	-14.5	-13.1	-13.5
Services balance	12.9	13.0	14.0	31.0	4.2	1.6	13.8	33.5	4.0
Income balance (factor services balance)	-3.9	-3.4	-3.5	-4.0	-2.5	-4.8	-4.8	-2.8	-1.8
Current transfers	2.3	2.4	2.4	2.1	2.6	2.2	2.4	2.2	3.0
Current account balance	-5.0	-1.0	-1.0	15.3	-8.9	-15.5	-3.1	19.8	-8.3
Capital account balance	0.1	0.1	-0.0	0.1	-0.0	-0.0	-0.0	-0.0	-0.0
Foreign direct investment (net)	3.3	0.9	2.2	2.2	-2.8	0.4	2.2	4.3	1.6
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	99.9	101.2	99.7	99.2	101.2	103.5	103.1	101.4	99.7
Gross official reserves (excluding gold)	22.7	23.2	24.4	24.3	23.2	24.9	24.9	24.7	24.4
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	7.0	7.2	7.2	7.6	7.2	7.6	7.4	7.3	7.2
<i>EUR million, period total</i>									
GDP at current prices	45,669	45,911	45,865	12,557	11,182	10,638	11,544	12,536	11,147

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

## 11 Turkey: Economy Slows Down, but Imbalances Are Corrected only Slowly

Domestic demand slows down notably ...

2011 brought strong GDP growth for the second year in a row, even though some momentum was lost in the second half due to sharply slowing domestic demand dynamics. The year-on-year growth rate of private consumption halved from the third to the fourth quarter while public consumption growth turned negative in the final quarter. Gross fixed capital formation growth declined noticeably to a meager 2.4% in the fourth quarter after having expanded at double-digit rates in the previous three quarters. Capacity utilization fell continuously from October 2011 to a low of 72.9% in February 2012. Labor force participation dropped at the end of 2011, helping the unemployment rate to decline further in the last two quarters of 2011.

The cooling of domestic demand has eased immediate overheating concerns and also induced some external rebalancing. In the final quarter of 2011, imports declined in year on year terms, while export dynamics strengthened, thus yielding a sizeable positive GDP contribution of net exports. This robust export performance despite current weakness in the euro area is partly related to the ongoing diversification of trading partners toward partners in the Middle East.

... but vulnerabilities remain elevated

Nevertheless, external imbalances continue to pose risks. The current account deficit soared to 10% of GDP for 2011 as a whole, even though it started to shrink in the second half of 2011 and remained on a downward path in the first two months of 2012. Still, not only the size, but also the financing of the current account deficit remain a concern. Combined FDI and portfolio investment flows covered less than 50% of the current account deficit during the second half of 2011.

Persistently high inflation rates constitute another risk factor. Year-end inflation rose to 10.4% in 2011, marking the second-largest deviation from target (2011: 5.5%) since the introduction of the inflation targeting regime in 2002. In its January MPC meeting, the Central Bank of the Republic of Turkey postponed reaching the 2012 target of 5% to mid-2013, citing temporary factors such as high food and energy prices as the main reasons for the deviation. After a small further increase in January, inflation remained stable at 10.4% in February 2012.

Monetary policy remains oriented toward financial stability

The central bank continued its tightening stance by wielding an unorthodox policy mix in the form of strong liquidity management. Frequent adjustments of the interest rate corridor and minimum reserve requirements have rendered the one-week repo funding rate (currently at 5.75%) less important; funding at this rate was even temporarily suspended for several trading days (“exceptional day” measures) in 2012. Consequently, credit growth to the private sector slowed considerably from a level of 43% year on year in August 2011 to 27% year on year in February 2012. Further, following a continuous and sizeable depreciation until September 2011 (by 26% in nominal terms against the euro from September 2010), the lira appreciated again in the final quarter of 2011. This appreciation trend continued in the first quarter of 2012, lifting the lira to a level of 2.38 TRY/EUR.

Robust economic growth in the first two quarters of 2011 led to a doubling of the primary budget surplus last year compared to 2010. Revenues were also boosted by a tax amnesty. Likewise, the headline budget deficit fell in 2011 and came in below target. Based on an optimistic GDP growth forecast of 4%, the government expects to meet the 2012 target of 1.5% of GDP and predicts public debt to fall further from 39.7% of GDP in 2011 to 37%.

Table 11

**Main Economic Indicators: Turkey**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	-4.8	9.2	8.5	5.3	9.3	11.9	9.1	8.4	5.2
Private consumption	-2.3	6.7	7.7	6.8	8.9	11.9	8.2	7.8	3.4
Public consumption	7.8	2.0	4.5	-0.9	3.1	7.0	9.0	10.3	-4.3
Gross fixed capital formation	-19.0	30.5	18.3	30.7	42.7	33.9	28.7	14.6	2.4
Exports of goods and services	-5.0	3.4	6.5	-1.6	4.2	8.7	0.5	10.2	6.7
Imports of goods and services	-14.3	20.7	10.6	16.3	25.4	26.9	18.9	6.8	-5.1
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-7.7	13.8	9.4	8.9	13.8	16.6	13.9	7.2	1.7
Net exports of goods and services	2.5	-4.0	-1.3	-3.9	-5.1	-4.8	-4.6	0.5	2.9
Exports of goods and services	-1.1	0.8	1.4	-0.4	1.0	1.8	0.1	2.1	1.5
Imports of goods and services	-3.6	4.8	2.7	3.6	6.1	6.6	4.8	1.7	-1.4
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	..	..	..	..	..	..	..	..	..
Unit wage costs in manufacturing (nominal, per hour)	11.0	1.3	6.8	5.1	5.3	1.7	7.5	8.2	10.1
Labor productivity in manufacturing (real, per hour)	-0.3	9.8	2.9	7.1	7.9	7.4	1.9	3.0	-0.0
Gross wages in manufacturing (nominal, per hour)	10.0	11.8	10.1	12.5	13.6	9.1	9.5	11.4	10.1
Producer price index (PPI) in industry	1.0	6.2	12.3	6.6	6.7	10.1	10.0	13.8	15.3
Consumer price index (here: HICP)	6.3	8.6	6.5	8.4	7.4	4.3	5.9	6.4	9.2
EUR per 1 TRY, + = TRY appreciation	-11.8	8.3	-14.5	9.6	10.8	-3.3	-13.2	-20.2	-19.7
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	12.9	10.9	9.0	10.3	10.0	10.6	8.7	8.4	8.3
Employment rate (%, 15–64 years)	44.2	46.3	48.4	47.5	46.5	46.1	49.2	49.9	48.4
Key interest rate per annum (%) <sup>1</sup>	9.2	6.8	6.1	7.0	6.9	6.3	6.3	5.9	5.8
TRY per 1 EUR	2.16	2.00	2.34	1.96	1.99	2.16	2.26	2.45	2.48
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	13.0	18.6	15.2	15.9	18.6	20.4	20.7	22.1	15.2
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	-1.2	-7.5	0.6	-6.8	-7.5	-3.1	-1.6	-1.1	0.6
Domestic credit of the banking system	21.5	30.2	19.0	28.3	30.2	26.6	26.2	26.5	19.0
<i>of which: claims on the private sector</i>	9.9	27.9	25.0	23.8	27.9	29.0	30.3	31.8	25.0
<i>claims on households</i>	2.7	8.4	8.4	7.2	8.4	9.3	10.5	10.2	8.4
<i>claims on enterprises</i>	7.1	19.5	16.6	16.6	19.5	19.7	19.8	21.5	16.6
<i>claims on the public sector (net)</i>	11.6	2.4	-6.0	4.5	2.4	-2.4	-4.1	-5.3	-6.0
Other assets (net) of the banking system	-7.2	-4.2	-4.4	-5.5	-4.2	-3.1	-3.8	-3.2	-4.4
<i>% of GDP, ESA 95</i>									
General government revenues	32.7	33.1	32.6	..	..	..	..	..	..
General government expenditures	39.4	36.6	35.0	..	..	..	..	..	..
General government balance	-6.7	-3.5	-2.4	..	..	..	..	..	..
Primary balance	-1.8	1.4	2.4	..	..	..	..	..	..
Gross public debt	45.5	43.2	39.7	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-17.7	16.1	13.0	16.5	18.8	20.4	3.6	17.0	12.4
Merchandise imports	-26.7	39.4	24.8	36.9	49.2	48.1	27.8	21.5	9.4
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-4.0	-7.7	-11.6	-8.5	-9.3	-11.3	-12.9	-11.6	-10.5
Services balance	2.7	2.1	2.3	3.9	1.8	0.8	2.0	4.4	2.0
Income balance (factor services balance)	-1.3	-1.0	-1.0	-0.8	-1.0	-1.5	-0.8	-0.9	-0.8
Current transfers	0.4	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Current account balance	-2.3	-6.4	-10.0	-5.2	-8.4	-11.8	-11.5	-7.9	-9.0
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	1.0	1.7	1.0	1.7	1.8	1.1	2.1	2.0
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	20.4	39.7	42.8	40.2	39.7	37.4	38.0	41.2	42.8
Gross official reserves (excluding gold)	11.1	11.0	10.9	11.0	11.0	10.7	11.3	11.5	10.9
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	5.4	4.9	4.0	5.0	4.9	4.5	4.5	4.4	4.0
<i>EUR million, period total</i>									
GDP at current prices	440,371	551,485	553,666	151,327	148,656	133,385	139,729	143,327	137,225

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

<sup>1</sup> Until April 2010: overnight borrowing rate; from May 2010: 1-week repo (lending) rate.

## 12 Russia: Growth Higher than Expected, Inflation Drops to Lowest Post-Soviet Level

Russian growth benefits from rising oil prices and a bountiful harvest

As in 2010, Russian GDP grew in 2011, expanding by 4.3%. Benefiting from rising oil prices, which on average were 40% higher (in U.S. dollars) than in 2010, and from a good harvest, as opposed to the heat-wave-induced bad harvest of the previous year, Russia in 2011 again reached and exceeded its precrisis output level. Growth accelerated in the second half of 2011. Even more than in 2010, the recovery was driven by domestic demand. The strongest contributions were delivered by the continued replenishment of inventories, private consumption and gross fixed investment; once again, the expansion of real imports outpaced export growth by a wide margin.

Inflation at end 2011 falls to its lowest post-USSR annual level

CPI inflation declined to 6.1% in December 2011, its lowest year-end level since the Soviet era. In February 2012, inflation fell further to 3.8%. The sharp decrease by about 3 percentage points in the course of the second half of 2011 pertains to a combination of factors: Food price growth slowed down substantially on the back of a bountiful harvest in 2011. Money supply growth decelerated due to increased capital outflows and a federal budget surplus (as opposed to a deficit in 2010), which meant that the government did not have to dip into its Reserve Fund and thus avoided any monetization of budget finance. The further decline of inflation in early 2012, however, was mostly due to the deferral of municipal tariff hikes to July of the election year 2012, a measure that does not appear to be sustainable in the medium term.

The Central Bank of Russia halts its monetary tightening exercise

With receding inflationary pressure accompanied by a renewed deterioration of the external economic environment in the fall of 2011, the Central Bank of Russia (CBR) halted its monetary tightening exercise. In December 2011, the refinancing rate was lowered again from 8.25% to 8.0%, while the overnight deposit rate was lifted from 3.75% to 4.0%. Moving in the direction of its long-term goal of inflation targeting, the CBR at end-December widened the ruble's fluctuation band relative to its U.S. dollar/euro currency basket from five rubles to six rubles. Over the six months to end-February 2012, the ruble's real-effective exchange rate appreciated by 3.0%.

Economic recovery supported by expanding bank credit and rising oil prices

The economic recovery, particularly private consumption, is being supported by banks' expanding credit activity. As of end-February 2012, credit to the private sector had grown by 22.4% year-on-year in real terms. Bank deposits also increased (15.7%), supported by hikes of deposit rates. The share of nonperforming loans (NPLs) in total loans declined from 19.7% to 17.2% over the year 2011. Buoyant oil prices, strong private-sector domestic demand and a gradual withdrawal of the anticrisis fiscal stimulus helped turn the general government budget balance into a surplus in 2011. Due to the improvement of the terms of trade, the current account surplus increased to 5.4% of GDP in 2011.

Uncertainty pushes private capital outflows to their highest level since 2008

However, private capital outflows rose to EUR 60.5 billion in 2011 (of which in the fourth quarter: EUR 28 billion) and were unrelenting in January and February 2012 (estimated at EUR 17.2 billion). These are the highest levels since the crisis year of 2008. The surge, particularly in recent months, can be largely explained by the appearance of political uncertainty in Russia and, to some extent, also by liquidity transfers of Russian subsidiaries to their Western parent banks. Although it increased in absolute terms, Russian gross external debt slightly declined to 31.6% of GDP at end-2011.

Table 10

**Main Economic Indicators: Russia**

	2009	2010	2011	Q3 10	Q4 10	Q1 11	Q2 11	Q3 11	Q4 11
<i>Year-on-year change of the period total in %</i>									
GDP at constant prices	-7.8	4.3	4.3	3.8	4.9	4.0	3.4	5.0	4.8
Private consumption	-5.1	5.1	6.7	6.8	6.2	6.0	6.0	7.1	7.6
Public consumption	-0.6	-1.4	1.5	-1.6	-2.8	1.7	1.5	1.5	1.4
Gross fixed capital formation	-14.4	5.8	8.0	5.1	11.2	-0.6	4.9	7.9	13.2
Exports of goods and services	-4.7	7.0	0.4	2.2	4.3	-0.4	2.0	-1.5	1.4
Imports of goods and services	-30.4	25.8	20.3	35.1	29.8	28.7	23.7	17.9	14.9
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	-13.1	7.0	7.9	9.5	9.4	7.9	7.1	9.1	7.3
Net exports of goods and services	5.2	-2.0	-3.9	-5.2	-4.0	-4.8	-3.8	-4.4	-2.9
Exports of goods and services	-1.5	2.3	0.1	0.7	1.4	-0.1	0.7	-0.5	0.5
Imports of goods and services	-6.7	4.3	4.1	5.9	5.3	4.7	4.5	3.9	3.3
<i>Year-on-year change of the period average in %</i>									
Unit labor costs in the whole economy (nominal, per hour)	..	..	..	..	..	..	..	..	..
Unit labor costs in industry (nominal, per person)	4.8	2.2	9.3	5.7	8.7	9.0	10.2	8.6	9.4
Labor productivity in industry (real, per person)	0.3	11.8	4.1	8.7	7.8	4.9	4.1	4.7	3.0
Average gross earnings in industry (nominal, per person)	4.8	14.7	13.8	14.9	17.1	14.4	14.7	13.7	12.7
Producer price index (PPI) in industry	-6.6	12.3	19.0	8.3	14.4	21.4	19.3	18.6	16.6
Consumer price index (here: CPI)	11.8	6.9	8.6	6.2	8.1	9.6	9.6	8.2	6.8
EUR per 1 RUB, + = RUB appreciation	-17.5	9.6	-1.5	13.3	4.4	3.3	-4.4	-3.9	-0.8
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	8.4	7.5	6.6	6.8	6.9	7.5	6.6	6.2	6.3
Employment rate (%, 15–64 years)	..	..	..	..	..	..	..	..	..
Key interest rate per annum (%)	11.4	8.0	8.1	7.8	7.8	7.8	8.2	8.3	8.2
RUB per 1 EUR	44.1	40.3	40.9	39.5	41.7	40.0	40.3	41.2	42.1
<i>Nominal year-on-year change in the period-end stock in %</i>									
Broad money (including foreign currency deposits)	17.3	24.6	21.1	25.4	24.6	22.4	19.0	20.5	21.1
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	10.7	5.8	9.4	11.1	5.8	6.3	3.8	11.2	9.4
Domestic credit of the banking system	19.4	22.1	19.9	20.4	22.1	18.4	15.3	17.0	19.9
<i>of which: claims on the private sector</i>	2.9	12.4	24.4	8.8	12.4	15.2	16.5	23.7	24.4
<i>claims on households</i>	-2.8	3.1	6.4	1.9	3.1	3.5	4.5	5.8	6.4
<i>claims on enterprises</i>	5.6	9.3	18.0	6.9	9.3	11.6	12.1	17.9	18.0
<i>claims on the public sector (net)</i>	16.5	9.7	-4.6	11.6	9.7	3.2	-1.3	-6.6	-4.6
Other assets (net) of the banking system	-12.8	-3.3	-8.1	-6.1	-3.3	-2.2	-0.1	-7.8	-8.1
<i>% of GDP, ESA 95</i>									
General government revenues	35.0	34.8	38.2	..	..	..	..	..	..
General government expenditures	41.4	38.3	36.6	..	..	..	..	..	..
General government balance	-6.3	-3.5	1.6	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt	8.3	8.6	9.2	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	-32.4	39.8	24.2	31.2	28.5	24.1	20.9	22.0	29.2
Merchandise imports	-31.3	37.4	23.7	54.5	37.9	44.0	26.0	13.8	19.3
<i>% of GDP (based on EUR), period total</i>									
Trade balance	9.0	10.2	10.7	7.6	8.6	12.1	10.9	9.1	10.9
Services balance	-1.6	-2.0	-1.9	-2.5	-2.0	-1.6	-1.8	-2.3	-2.0
Income balance (factor services balance)	-3.3	-3.3	-3.2	-3.2	-3.3	-2.5	-4.5	-2.9	-3.1
Current transfers	-0.2	-0.2	-0.2	-0.4	-0.4	-0.2	0.1	-0.3	-0.2
Current account balance	3.9	4.7	5.4	1.4	3.0	7.8	4.7	3.6	5.7
Capital account balance	-0.9	0.0	-0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0
Foreign direct investment (net)	-0.6	-0.6	-0.8	-0.8	-0.5	-0.2	-1.5	0.2	-1.7
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	36.9	32.6	31.6	33.0	32.6	30.4	30.4	30.6	31.6
Gross official reserves (excluding gold)	32.9	29.6	26.3	31.7	29.6	27.7	27.3	27.4	26.3
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	19.2	16.3	14.2	17.9	16.3	15.1	14.6	14.8	14.2
<i>EUR million, period total</i>									
GDP at current prices	879,525	1,121,860	1,333,135	299,627	311,910	291,975	323,641	350,066	36,7453

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

Box 1

### **Ukraine: Widening External Imbalances, IMF Program off Track for More than a Year**

Ukraine recorded strong GDP growth (5.2%) in 2011, which was mainly driven by private consumption. Moreover, in the second half of 2011, the growth of gross fixed capital formation accelerated considerably, supported by infrastructure investments for the 2012 European football championship. Real exports, however, were hit by declining external demand and fell year on year in the second half of 2011. With real imports still growing, net exports continued to contribute negatively to GDP growth.

Inflation continued its downward trend and dropped to 3% in February 2012. Against the background of disinflation, the central bank cut its refinancing rate by 25 basis points to 7.5% in March.

Domestic demand-led growth was accompanied by widening external imbalances. In 2011, the current account deficit increased to 5.5% of GDP from 2.2% of GDP in 2010. Net FDI inflows covered 75% of the current account deficit.

In the second half of 2011, official foreign exchange reserves shrank markedly due to stepped-up interventions to support the hryvnia's peg to the U.S. dollar. Exchange rate pressures had been triggered by households' depreciation expectations, increasing risk aversion in international financial markets and causing concerns about Ukraine's external accounts to resurface. The pressure on the currency apparently eased in early 2012.

Ukraine's Stand-By Arrangement with the IMF, concluded in July 2010, has already been off track for more than a year. So far, the IMF has disbursed only two tranches amounting to EUR 2.6 billion of a total of EUR 11.6 billion. Ukrainian authorities remained reluctant to raise gas prices for households, a key condition of the IMF to continue the program. Negotiations with Russia to reduce gas import prices, which the Ukrainian authorities see as an alternative to raising domestic gas prices, have so far been inconclusive. Recently, the Ukrainian administration has hinted at being ready to consider changes in domestic gas prices.

Box 2

### **Western Balkans: Growth Slows while External Adjustment Remains a Challenge**

In annual average terms, GDP growth in most Western Balkan countries<sup>1</sup> picked up somewhat in 2011, with annual real GDP growth rates ranging from 1.6% in Serbia to 3.2% in FYR Macedonia and an estimated 5% in Kosovo<sup>2</sup>. However, the growth pattern in all countries of the region changed substantially during the course of the year. Relatively strong dynamics in the first half of 2011 were followed by a slowdown in economic activity in the second half, mainly reflecting spillovers from a deteriorating international environment. A more detailed analysis is hampered by data gaps. Neither demand components are available for all countries covered here, nor are quarterly GDP data available.

In broad terms, the following main trends are discernible. Private consumption grew in all countries in 2011 (no data are available for Serbia<sup>3</sup>). A similar picture can be seen as for gross fixed capital formation (except in Montenegro, where investment contracted). The contribution of net exports to GDP growth fell and turned negative in several countries.

The labor market situation continued to be weak in all Western Balkan countries. Unemployment remained particularly high in Bosnia and Herzegovina (44%), FYR Macedonia (31%) and Serbia (22%) in 2011.

<sup>1</sup> The Western Balkan region comprises the EU candidate countries FYR of Macedonia and Montenegro, as well as the potential candidate countries Albania, Bosnia and Herzegovina, Kosovo, and Serbia. Developments in Croatia are covered in the country section of this report.

<sup>2</sup> The figure for Kosovo is based on an IMF estimate.

<sup>3</sup> In the case of Serbia, retail sales data indicate a considerable contraction in 2011.

All Western Balkan countries recorded current account deficits in 2011. While the deficit was small and fairly stable in FYR Macedonia, deficits in the other countries remained elevated, mostly around 10% of GDP, and on the rise in Serbia as well as in Bosnia and Herzegovina. In Montenegro, the deficit amounted to 19% of GDP, which constituted an improvement compared to 2010 (25%), though. Net FDI inflows covered between half and two-thirds of current account deficits in most countries, only in Bosnia and Herzegovina was the coverage rate considerably lower, while it was above 100% in FYR Macedonia. Overall, coverage rates did not change substantially from 2010 to 2011.

Private sector credit growth picked up in 2011 in almost all countries, reaching between 5% and 15% (in Bosnia and Herzegovina it turned positive in 2011). In contrast, credit to the private sector continued to contract in Montenegro (2011: -11%). In total, the private sector credit stock in Montenegro fell by about 30% from 2009 to 2011. However, credit quality improved in Montenegro, contrary to the other Western Balkan countries, where the share of nonperforming loans increased further. In all countries covered here, it reached levels between 12% and 19% in 2011 (except in Kosovo, where IMF estimates point to a share of bad loans of 6% in total outstanding loans).<sup>4</sup>

Annual average inflation rates tended to rise in 2011 in most countries (except for Serbia and Albania). They ranged between 3% and 4% for Montenegro, FYR Macedonia, Albania and Bosnia and Herzegovina, to 7% and above in Serbia and in Kosovo. In most countries, inflation peaked in the spring of 2011 and eased a bit thereafter, while it started to rise again in early 2012. The central banks of Serbia and of Albania reduced policy rates in 2011 (the other countries have little or no space for monetary policy due to fixed pegs, currency board arrangement or the use of the euro).

All countries posted general government deficits in 2011 of between about 1% and 5% of GDP. Deficit ratios stayed broadly stable compared to 2010, even though revenue developments were somewhat below plan in several countries.

The IMF has continued to be an important policy anchor for some Western Balkan countries. The completion of the first review of the precautionary Stand-By Arrangement Serbia received in September 2011 has been delayed due to unresolved issues about the 2012 budget, while the overall policy performance of the Serbian authorities was found to be largely appropriate. Kosovo has recently applied for a new Stand-By Arrangement, and at staff level, recently agreement was reached on a twenty-month agreement (of an amount of about EUR 107 million). FYR Macedonia continues to have a precautionary credit line agreement with the IMF. Finally, the Stand-By Arrangement of Bosnia and Herzegovina with the IMF is nearing completion and will expire in June 2012.

<sup>4</sup> It should be noted that cross-country comparisons of NPL data are hampered by differences in classification rules.

# Outlook for Selected CESEE Countries:

## Mixed External Environment Compounds Weak Domestic Demand<sup>1, 2</sup>

### 1 CESEE-7<sup>3</sup>: External and Domestic Factors Continue to Weigh on Economic Growth

The global economic outlook worsened considerably in autumn 2011, soon after the OeNB's previous CESEE forecast was compiled. The weak performance of major economies and, in particular, the intensification of the sovereign debt crisis in several euro area countries resulted in a considerable deterioration of confidence and growing concerns about negative spillovers of these developments to the CESEE region. Despite signs of stabilization both at the global level and in the euro area since the turn of the year, the weaker external environment is expected to halve economic growth in the CESEE-7 region to 1.4% in 2012, down from a rather strong performance of 3.2% in 2011. Growth dynamics are likely to remain uneven within the region. Poland, followed by Latvia and Lithuania, will continue to outperform the other CESEE countries. Bulgaria and Romania will post moderate growth rates of above 1%, while GDP growth in the Czech Republic will almost stagnate. Hungary is expected to go through a moderate recession – primarily caused by domestic factors – in the first half of 2012, and its annual GDP will contract marginally in 2012.

Table 1

#### GDP and Import Projections for 2012–13

	GDP			Imports		
	2011	2012	2013	2011	2012	2013
	Year-on-year growth in %					
CESEE-7	3.2	1.4	2.6	7.6	3.4	5.7
Bulgaria	2.1	1.3	2.4	8.7	4.5	7.0
Czech Republic	1.7	0.3	1.9	7.5	2.3	6.3
Hungary	1.7	-0.5	1.2	6.3	3.0	5.4
Poland	4.4	2.4	3.1	6.0	3.4	5.0
Romania	2.1	1.2	2.6	11.2	3.4	5.8
Croatia	0.3	-0.9	1.3	-6.5	0.5	4.9
Russia	4.3	3.7	3.7	22.0	8.0	6

Source: OeNB-BOFIT March 2012 forecast, Eurostat, Rosstat.

Note: CESEE-7= CESEE EU Member States that have not yet introduced the euro; seasonally adjusted data for 2011.

For the region as a whole, the first half of 2012 will mark a turning point in growth dynamics that will be followed by a rather gradual pick-up (see chart 1). In 2013, growth in the CESEE-7 will move up to 2.6% as the external environment improves. Economic growth will become positive in all countries, and GDP growth rates are projected to range between 1.2% in Hungary and 3.1% in Poland.

Owing to weak external demand, export growth will roughly halve in 2012 in the CESEE-5 countries<sup>4</sup> covered by the OeNB's projections. Being strongly exposed to fluctuations in external

<sup>1</sup> Compiled by Julia Wörz with input from Stephan Barisitz, Martin Feldkircher, Sándor Gardó, Mariya Hake, Mathias Lahnsteiner, Thomas Reininger, Jarmila Urvova and Zoltan Walko.

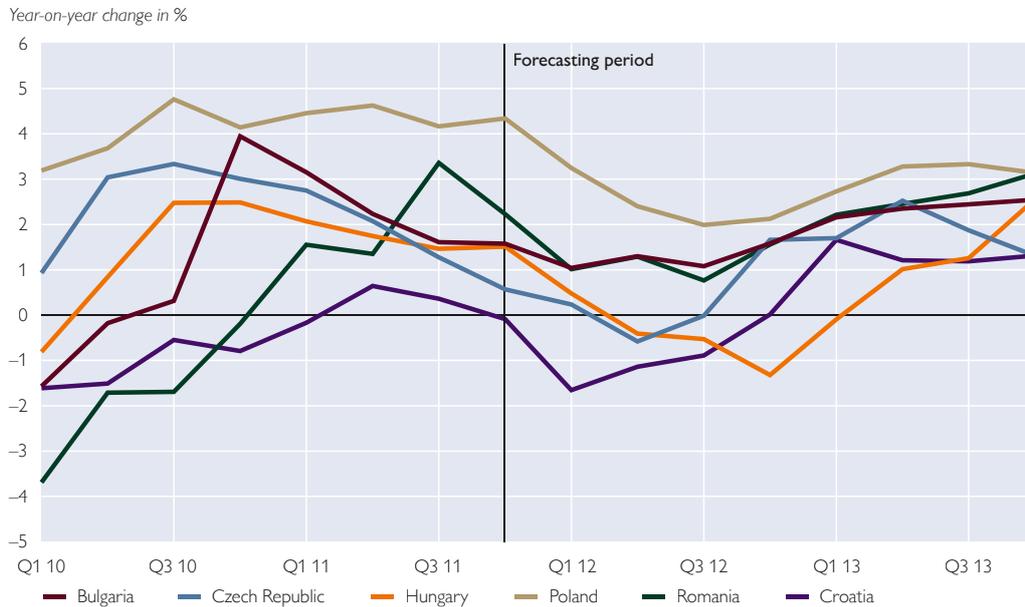
<sup>2</sup> The OeNB and the Bank of Finland Institute for Economies in Transition (BOFIT) compile semiannual forecasts of economic developments in selected CESEE countries (Bulgaria, the Czech Republic, Hungary, Poland, Romania, Russia and Croatia). These forecasts are based on a broad range of information, including country-specific time series models for Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania (for technical details, see Crespo Cuaresma et al. 2009. *Simple but Effective: The OeNB's Forecasting Model for Selected CESEE Countries*. In: *Focus on European Economic Integration Q4/09*. 84–95). The projections for Russia were prepared by the Bank of Finland and are based on an SVAR model. Latvia and Lithuania are not covered by our own projections, but are included in the CESEE-7 aggregate based on the IMF World Economic Outlook (WEO) projections of April 2011. The cutoff date for all projections is March 16, 2012.

<sup>3</sup> Bulgaria, Czech Republic, Hungary, Latvia, Lithuania, Poland and Romania.

<sup>4</sup> Bulgaria, Czech Republic, Hungary, Poland, Romania.

Chart 1

### Quarterly Profile of GDP Projections



demand, export growth will decline more markedly in the Czech Republic while the slowdown in import dynamics will be slightly less pronounced. In all CESEE-5 countries (except in Romania), the contribution of net exports to GDP growth will shrink but nevertheless continue to be positive.

Budget consolidation implies that public consumption will provide no impetus to growth in 2012. Private consumption will likewise be hampered by the current consolidation packages. Weak labor market conditions and tight private sector funding also weigh negatively on private consumption. Even in the absence of bottlenecks in private sector credit supply in all countries apart from Hungary, the need to reduce the currently elevated levels of private debt in the household sectors of some countries implies a continued drain on demand. However, developments within the region will remain mixed for country-specific reasons (see section 2). Private consumption will continue to decline somewhat in the Czech Republic and will fall considerably in Hungary. In Hungary, financial deleveraging in the private sector will further add to this renewed contraction in private consumption. By contrast, real wage growth in Romania will reinforce a base effect, leading to a notable increase in private consumption in 2012. Growth in gross fixed capital formation will remain weak in 2012, but will show a rising tendency in most countries except Poland, where rising private investment will only just compensate for diminishing public investment. Due to heightened uncertainty, restocking will be postponed into 2013.

Taking into account the assumed stabilization in external demand from the euro area, we project GDP growth to rebound somewhat in 2013 but to remain rather weak. The recovery will again be led by Poland, the Baltic countries and the Southeastern European economies (Bulgaria and Romania). Growth in the Czech Republic will also pick up again, while growth dynamics will remain more

**CESEE-5:**  
Slowing external  
demand in 2012 ...

... cannot be offset by  
domestic growth drivers

Moderate rebound  
in 2013 ...

... will be more  
balanced in terms  
of growth drivers

restrained in Hungary. Economic growth will become more balanced again in 2013 in terms of both regional composition and growth drivers.

Domestic demand will pick up throughout the region and will contribute positively to GDP growth in all countries under review. The hesitant recovery of domestic demand in the five CESEE countries covered by our projections is related to slightly improving financing conditions for the private sector. Country-specific factors such as elections in Bulgaria and the increased utilization of EU funds in Romania will further reinforce domestic demand growth in Southeastern Europe. Apart from Poland, where private consumption will remain constant, consumer spending growth is expected to pick up to some extent and to once again make the strongest positive contribution to GDP growth in Southeastern Europe. Public consumption growth will remain subdued over the entire forecasting period; no notable growth impact can be expected from fiscal policy. Investment growth will show some signs of revival, which is partly related to inventory restocking and partly to previously postponed investment decisions, improved financing conditions and rising investor confidence.

Trade growth will accelerate, but only in line with the moderately improving external environment. Therefore, the expansion of external trade will fall considerably short of the strong rebound recorded in the two years following the severe trade collapse of 2009. Import and export dynamics will be roughly equal; as a result, the contribution of net exports to growth will remain almost unchanged compared with 2012.

Downside risks  
continue to prevail

The risks to this outlook continue to be tilted downward, albeit less obviously so than in our September forecast. A further intensification of the sovereign debt problems in the euro area's southern periphery, in particular the occurrence of a shock in a larger country, would have a negative impact on the projection outcome in at least two ways: First, investor and business confidence would severely drop in all catching-up economies in Europe, leading to a more protracted weakness in domestic demand. Second, demand for CESEE-7 exports would immediately go down, thus weakening the most robust growth pillar of recent years. In addition, the effects of the European Banking Authority's capital requirements, which were laid down in late 2011, are still partly unclear and imply some continued deleveraging risk for the region, even though initial concerns related to deleveraging may turn out to have been too strong. By contrast, if growth in Germany was stronger than assumed as a result of recently accelerating world trade growth and the rather promising cyclical developments in the U.S.A. in the fourth quarter of 2011, this would pose an upside risk to our projections.

## 2 CESEE-5: Substantial Differences across Bulgaria, the Czech Republic, Hungary, Poland and Romania

Resting exclusively on the contribution of net exports, real GDP growth accelerated somewhat in 2011 in *Bulgaria*. As a consequence of the economic slowdown in the euro area, however, annual GDP growth started to decline in the fourth quarter of 2011. Moreover, high-frequency and confidence indicators developed unfavorably in the first two months of 2012. This led us to revise our real GDP growth forecast for 2012 downward, to 1.3%. Still, private consumption is expected to show signs of a modest recovery on the back of strong real wage growth (i.a. as a consequence of the rise in minimum wages of May 2012) despite the fact that the labor market

has been stagnating so far. Investment activity (in particular construction), which remained depressed throughout 2011, will recover somewhat as a result of the stronger absorption of EU structural funds despite weak private investment activity. The growth contribution of net exports will remain positive in 2012, but will decline, given already high capacity utilization levels and an acceleration of import growth due to strengthening domestic demand. Going forward, we expect economic growth to gradually pick up and reach 2.4% in 2013, driven by strengthening domestic demand. Private consumption should gather momentum as first signs of improving labor market conditions become apparent and planned measures (i.e. a VAT decrease in two steps from 20% to 18%) fully materialize. Against the background of the parliamentary elections scheduled for the first half of 2013, some stimuli will also come from public consumption. Export growth is expected to increase somewhat in 2013 but alongside further accelerating import growth, the positive contribution of net exports to GDP growth is likely to turn negative.

The downward revision of *Czech* annual GDP growth to 0.3% for 2012 is mainly due to the change in external assumptions and, to a lesser extent, also to recent revisions of the quarterly GDP components data. For 2013, we forecast a rebound of growth to 1.9%. As in 2011, net exports will remain the only positive contribution to growth in 2012 even though both the growth pace of imports and exports as well as their combined growth contribution (0.3 percentage points) will decelerate substantially due to stalling economic activity in the main trading partner countries. Subject to the EU Excessive Deficit Procedure, *Czech* government consumption will continue to contract in 2012. The austerity measures, notably the lower-rate VAT hike (from 10% to 14%) and the public wage freeze, will also put a drag on private consumption and will weigh on the stagnating labor market and the general uncertainty about further economic developments as reflected in the currently low levels of consumer confidence indicators, which are comparable to those recorded during the 2009 crisis. High capacity utilization near its long-term average, low interest rates, a low investment basis in 2011 as well as the most recent improvement of manufacturing indicators point toward a likely recovery of gross fixed capital formation. However, other factors such as moderating credit growth, the effect of the VAT hike, the reduction of state subsidies to building loan contracts, the stagnation of government investment plans due to fiscal consolidation as well as subdued consumption and the slowdown in external demand suggest that this recovery is not likely to take place before the second half of 2012. As a result, the development of overall gross fixed investment will stagnate in 2012. In 2013, with improvements in the labor market and less stringent fiscal consolidation, private consumption is expected to recover, supporting rising imports together with reaccelerating external demand. Investment will continue to grow from the second half of 2012, making overall GDP growth in 2013 more balanced. Apart from external factors, the possible failure of the government to meet its consolidation targets poses a downside risk to our projection.

The *Hungarian* economy is expected to contract by 0.5% in 2012 and to expand only modestly, by 1.2%, in 2013. In both years, growth impulses will come mostly from external demand. In 2012, net exports will constitute the only positive contribution to *Hungarian* GDP growth. Domestic demand is likely to contract considerably in 2012 and to recover slowly from 2013 onward. The VAT hike of

early 2012 and changes to the income tax system will lead to a decline in real incomes in 2012. In addition, uncertainties regarding future real income growth, higher debt servicing costs and deleveraging will weigh on private consumption, while fiscal consolidation will cause public consumption to contract further. Given bleak growth prospects, weak household incomes and sizeable budgetary savings, investment will decline again in 2012, though less sharply than in 2011. Moreover, as banks must absorb the financial burden resulting from bank tax, mortgage relief schemes and increased provisioning needs while facing a difficult funding environment, they will keep credit conditions tight, which will adversely affect both consumption and investment activity. A cautious recovery may take root from the second half of 2013 onward if we assume that foreign demand picks up, fiscal consolidation becomes less contractionary and financing conditions start to ease.

For *Poland*, we forecast GDP growth to reach 2.4% in 2012, implying a substantial slowdown from the previous year's high growth rate of 4.4%. In 2012, the effects of the assumed economic slowdown in the euro area on Polish exports will be cushioned by the delayed impact of the substantial currency depreciation observed in the second half of 2011, which came on top of a previous strong decline in unit labor costs in the manufacturing sector. By contrast, the weakening of the Polish zloty against the Swiss franc may have induced a number of households holding Swiss franc-denominated debt to restrain their consumption expenditures. In both years, continued fiscal consolidation will be a growth-dampening factor. In particular, the spending rule for the central government wage bill and excise tax increases will weaken public and private consumption growth. The clouded outlook for foreign and domestic demand will reduce fixed-investment growth, which had not turned positive until 2011. However, ongoing public nonresidential construction (linked to the 2012 European football championship), rising EU-cofinanced investments and – to a lesser extent – households' residential building (financed by double-digit mortgage lending growth) will keep gross fixed capital formation growth substantially positive. The combination of a strong export-import link, weaker domestic demand growth and the delayed effects of currency depreciation will cause import growth to decelerate even more than export growth, lifting the previous year's positive contribution of net exports to GDP growth slightly. In 2013, GDP growth will accelerate to 3.1%, reflecting mainly the recovery of euro area demand and the fact that inventory build-up stopped decreasing. Given further fiscal consolidation, public consumption growth will hardly speed up. Regarding investment growth, additional EU-cofinanced investments and the accelerating growth of corporate sector investment (on the back of strong liquidity positions and sufficient credit supply) will largely substitute for the decline in public investment growth after the 2012 boom.

After two years of recession, economic growth in *Romania* recovered in 2011, with GDP growth partly driven by a very good harvest. It is also worth noting that private consumption as well as gross fixed capital investment started to recover in 2011 and posted positive annual growth rates in the second half of the year (3.1% and 10.9%, respectively). We forecast growth to decelerate to 1.2% in 2012 due to the weakening external environment and negative base effects stemming from the extraordinarily high agricultural output in 2011. For 2013, we expect growth to accelerate to 2.6%. In line with our external assumptions, real export growth

in Romania will decelerate considerably in 2012 and will pick up speed in 2013. Given the high import content of exports, import growth will follow a similar pattern. In both 2012 and 2013, growth will be driven most strongly by private consumption and gross fixed capital formation. Real wage growth turned positive in mid-2011, thus supporting private consumption. Against the background of disinflationary developments and the government's plans to hike public wages in June 2012 (the size of the boost is still unclear), real wage growth will most likely remain positive. Moreover, high-frequency indicators (retail sales, consumer confidence) developed favorably in early 2012. However, the recovery of private consumption will only be gradual, as the growth of domestic credit to households remains subdued and is unlikely to pick up markedly. The recovery of construction output is likely to remain a key driver of investment growth. Moreover, the Romanian authorities have taken several steps to increase the absorption of EU funds. Provided that these measures are successful, improved EU fund absorption could also support the growth of gross fixed capital formation.

### 3 Croatia: Prolonged Weakness Mainly Caused by Domestic Factors

Economic conditions will remain gloomy in *Croatia* in 2012, as the economy is forecast to slide back into recession (−0.9%). In particular, adverse labor market conditions, the increase of the VAT rate from 23% to 25% as of March 2012 and the ongoing process of financial deleveraging in the household sector will weigh on private consumption while the pressing need to consolidate public finances will compromise public consumption. At the same time, a less supportive international environment is expected to hurt exports. Given the gradual recovery of investments and strong base effects, imports are likely to post moderate growth, so that the contribution of net exports to GDP growth can be assumed to turn negative in 2012.

Driven by a recovery in domestic demand, GDP growth in Croatia is expected to reach 1.3% in 2013. Consumption will remain rather weak, though. In fact, while private consumption is estimated to pick up due to the base effects related to the 2012 VAT hike and advanced purchases before EU accession on July 1, 2013, ongoing fiscal consolidation will continue to weigh on public consumption. Investment activity is expected to become the main pillar of growth in 2013. After having contracted strongly for several years in a row, gross fixed capital formation is forecast to grow robustly thanks to increasing FDI inflows ahead of EU accession, and inventory restocking is expected to provide a strong impetus to economic growth as well. At the same time, the investment-driven recovery of domestic demand will also contribute to accelerating import growth. Together with moderately firming export growth in a gradually improving global environment, this will result in an increasingly negative contribution of net exports to GDP growth.

Domestic factors trigger renewed recession in 2012

Strong investment activity ahead of EU accession will bolster growth in 2013

### 4 Russia: Brisk Economic Recovery to Level Off Somewhat Owing to Uncertainties

We forecast annual GDP growth in *Russia* to moderate to 3.7% in both 2012 and 2013 from 4.3% in 2011. This leveling-off tendency is influenced by the expected turnaround in oil price dynamics and a modest decline in oil prices over the entire forecasting period by about 10% from a currently relatively high level. The forecast decline of GDP growth in 2012 is attributed to uncertainties in the global

economy as well as in Russia. Another point is that farming simply cannot count on another large rebound of the kind it experienced in 2011. In 2013, we expect growth in Russia to be supported by revived confidence, recovering global economies and trade, and waning uncertainty, provided that economic policies become clearer after the March 2012 presidential election.

Export growth to remain low in 2012

Given an expected overall tendency of somewhat slower wage increases, consumer demand is assumed to decelerate slightly over the forecasting period.<sup>5</sup> The current rapid growth in household borrowing may be reined in as real interest rates on short-term credit (i.e. with maturities of under one year) have risen to exceptionally high levels. After three slow years, growth in public consumption is expected to pick up a bit in 2012, with government spending rising and the Ministry of Economic Development's forecast suggesting that public investment may expand modestly. Growth in export volumes is expected to remain low during the forecasting period. Indeed, the Russian authorities have adjusted their own export estimates for crude oil and petroleum products slightly downward for the coming years as increased domestic oil consumption exceeds growth in domestic oil production. The impact will, however, be moderated by rising exports of natural gas and other basic commodities. Growth in corporate fixed capital investment could dip in 2012 amidst economic uncertainties and should recover in 2013 and 2014 as these uncertainties fade.

Net capital outflows may persist throughout 2012

The momentous inventory restocking activities following the recession are expected to ease off in 2012 and the next few years. Net capital outflows from Russia may persist this year until uncertainties in international financial markets recede and the new government takes measures to improve Russia's business climate. In that case, the direction of net capital flows could also reverse. After rebounding strongly from the recession, import growth eased in recent months. We expect import expansion to average around 7% a year in the forecasting period, reflecting lower post-crisis GDP growth.

Downside risks emanating from uncertain consumer and investor confidence

Risks to the forecast are largely on the downside. For instance, Russian consumer confidence could erode for domestic reasons even if the global economy develops as assumed. Corporate investors could become more cautious if the prevailing global and domestic uncertainties do not dissipate over the short term. Moreover, Russia would be quick to feel any shock to the world economy if it triggered a sharp drop in oil prices or jolted financial markets anew. In such a case, Russia's leadership would retain the means for stimulus measures and can be expected to respond actively to cushion adverse impacts on the economy if necessary.

<sup>5</sup> However, during his presidential campaign, Prime Minister Putin promised sizeable public sector wage adjustments for the years to come.

Studies

# Drivers of Output Loss during the 2008–09 Crisis: A Focus on Emerging Europe

Jesús Crespo Cuaresma,  
Martin Feldkircher<sup>1</sup>

*We study empirically the role that initial conditions played in the emergence of cross-country heterogeneity in real output loss during the recent global financial crisis. We use a global sample covering over 150 countries and focus on the differences in the determinants of the crisis in emerging Europe compared to those in the rest of the world. We find that the differences in crisis severity in emerging Europe can only partly be explained by the factors that appear to be important for the global sample. Our results indicate that for the European emerging economies, growth above potential before the crisis coupled with external disequilibria as well as financial openness were particularly important mechanisms that increased the severity of the crisis in terms of output loss. We also find some evidence that pre-crisis FDI inflows softened the negative real output effects of the crisis in the region.*

*JEL classification: C11, C15, E01, O47*

*Keywords: financial crisis, cross-country analysis, Bayesian model averaging*

## 1 Introduction

In this study we assess whether the variation in cross-country output loss during the 2008–09 financial crisis is systematically related to pre-crisis country-specific vulnerabilities. Did countries that had entered the crisis with poor macro fundamentals experience, on average, larger downturns compared to their peers? If yes, what macroeconomic and financial conditions help explain the cross-country differences in the response of output to a global shock? Our regional focus is on emerging Europe, which has been hit particularly hard by the crisis relative to other emerging economies.

The early global financial crisis literature is essentially based on the contributions of Rose and Spiegel (2010a, 2010b, 2011) and Frankel and Saravelos (2010). In a series of papers, Rose and Spiegel link a large set of fundamental variables and financial market information to three different metrics of crisis severity: output loss, currency depreciation and credit rating downgradings. Using a vast set of regression equations, the authors conclude that few, if any, pre-crisis variables are helpful in explaining differences in crisis severity across countries. This result, which can be interpreted as criticism of the use of early warning mechanisms to predict crisis occurrences, is contested by the work of Frankel and Saravelos (2010), who find that a high level of central bank reserves cushioned the impact of the crisis. Other useful indicators in predicting the severity of the crisis in Frankel and Saravelos (2010) include real effective exchange rate overvaluation, current accounts and national savings. In contrast to the early 2008 crisis literature, Frankel and Saravelos (2010) extend their sample to include observations for 2009. They attribute the differences in their results precisely to the expansion of the observation period.

In the aftermath of the crisis, two strands of the literature emerged. Some studies explicitly analyze exchange rate movements after the crisis<sup>2</sup> (Aizenman et

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<sup>2</sup> For information on the determinants of financial stress, see Aizenman et al. (2012).

al., 2008), while others focus on the impact of the crisis on the real economy. We follow the latter by concentrating on real output loss and the factors that help explain its cross-country variation during the “first global recession in decades” (Imbs, 2010).

Our analysis is based on assessing correlates of crisis severity for a sample covering the whole world with a regional focus on economies in Central, Eastern and Southeastern Europe (CESEE).<sup>3</sup> The effects of financial crises in the region have been found to have strong negative effects on output. In particular, Furceri and Zdzienicka (2011) assess the impact of financial crises on output for eleven European transition economies and conclude that long-term output during crisis episodes was reduced by around 17% (as compared to 2% in the EU advanced economies). A certain degree of heterogeneity in the impact is found across European transition economies, with dependence on external financing playing an important role as a determinant of severity. Fiscal policy and exchange rate behavior appear to be additional factors that can explain the different effects across economies in the region. Blanchard et al. (2010) give a theoretical underpinning of the adjustment channels during the crisis for emerging economies. Their short-run open economy model (which allows for imperfect capital mobility and potentially contractionary effects of a depreciation coming from foreign currency debt exposure) predicts the adjustment path of countries to adverse financial and trade shocks. The empirical analysis carried out for a sample of 33 emerging economies points to the importance of trade and financial openness as well as the growth performance of trading partners as the main explanatory factors for the heterogeneity in output growth during the crisis. In an empirical assessment, Keppel and Wörz (2010) identify export orientation, overheating and the fiscal stance as important determinants of crisis severity for the CESEE region.

Recent contributions (e.g. Berkmen et al., 2009; Lane and Milesi-Ferretti, 2010; Cecchetti et al., 2011) as well as the studies mentioned above share some key characteristics. They are based on cross-country regressions where the dependent variable is a measure of crisis severity, and a different set of potential explanatory variables is used for different sub-samples of countries. It is thus not surprising that the literature has so far not reached a consensus and that many studies do not find any determinants of crisis severity to be robust, while others identify a range of factors determining the intensity of the real effects of the crisis.

In this paper we aim to provide a detailed analysis of crisis determinants by means of a systematic approach that explicitly accounts for model uncertainty, a dimension which has hitherto been neglected in the literature. We have collected over 60 variables comprising macroeconomic and financial variables and indices measuring regulatory quality prior to the crisis for more than 150 countries. The sheer number of potential explanatory variables implies that the uncertainty about the variables which enter the empirical specification needs to be accounted for in order to conduct statistical inference about the factors determining crisis severity. We use modern Bayesian model averaging (BMA) techniques in order to assess the relative importance of explanatory channels instead of picking an arguably

<sup>3</sup> We use a broad definition of the CESEE region comprising the following countries: Albania, Armenia, Azerbaijan, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, FYR Macedonia, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Moldova, Poland, Romania, Russia, Serbia, Slovakia, Slovenia and Ukraine.

“reasonable” subset to construct the model on which we base our inference. To our knowledge, this study is the first to employ state-of-the-art BMA methodology to perform robust inference on the determinants of crisis intensity, and the dataset constructed is also the most comprehensive one used hitherto in this branch of the literature.

Our results stress the importance of the level of development, economic growth and exchange rate misalignments prior to the crisis as factors explaining differences in output loss during the crisis. However, the output loss in CESEE economies can only partly be explained by those variables that appear to be robust determinants of crisis severity in the global sample. For emerging economies in Europe, financial openness as well as overheating coupled with external misalignments are additional factors that led to a considerable exacerbation of the crisis. Furthermore, our results indicate that economies in the CESEE region whose pre-crisis growth was strongly supported by FDI flows were hit less hard by the crisis in real terms.

Section 2 of this paper introduces the data and provides a brief descriptive analysis. Section 3 lays out the econometric framework and introduces the BMA methods used for the empirical analysis. Section 4 discusses the empirical results, and section 5 concludes.

## 2 Crisis Severity and Its Potential Determinants

In order to investigate determinants of severity in output loss during the crisis, we construct three different proxy variables for crisis intensity. First, we compute the cumulative real output loss over the period 2007 to 2009, which is given by  $y_{09}/y_{07}$ , where  $y_t$  denotes real GDP in year  $t$  (cumLoss\_0907). This measure serves as our baseline dependent variable and covers the recession period 2007 to 2009.<sup>4</sup> As a second measure we calculate the cumulated output loss over the period 2008–09 (cumLoss\_0908). This variable will be used to check whether our results are robust to changing the period considered to measure the crisis effects. Following Lane and Milesi-Ferretti (2010), we use forecast revisions as our third measure for crisis intensity. In particular, we consider the differences between the April 2008 real GDP forecasts from the IMF World Economic Outlook for 2009 ( $\hat{y}_{09}$ ) and the actual growth figures normalized by real GDP in 2007, that is  $(y_{09} - \hat{y}_{09})/y_{07}$  (cum\_rev0907). Note that these measures in general do not control for differences in the business cycle across countries.<sup>5</sup> All measures are calculated for a total of 153 economies covering countries in Western Europe (20), North America (2), Eastern Europe (16), the CIS (8), Africa (41), Asia and the Pacific (37) and Latin America and the Caribbean (30) and are fully described in table 4 in the appendix. Using boxplots, we graphically depict the three severity measures (cumLoss\_0907, cumLoss\_0908 and cum\_rev0907,) in chart 1. The left-hand panel of the chart

<sup>4</sup> It should be noted that we are not interested in modelling the timing of the crisis, which, clearly, would call for a different empirical framework based on time series models and a detailed account of the differences in the time profile of the effects of the crisis across countries. The recent contributions of Chudik and Fratzscher (2011) on the transmission of financial stress and Babecký et al. (2011) would fall in this category of models. In a global set-up including data from developing countries, real GDP is hardly available at a quarterly frequency, thus limiting the applicability of these types of model.

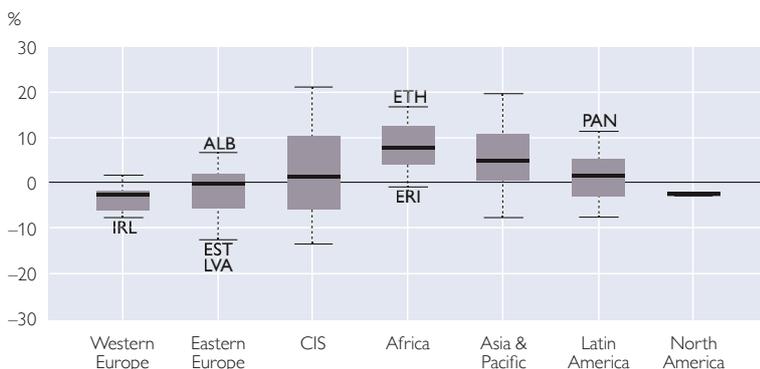
<sup>5</sup> See Cecchetti et al. (2011) for a contribution constructing a measure for economic output that controls for the global business cycle by means of factor analysis.

shows the distribution of the three measures across countries. The Baltics and Ukraine were found to have been most strongly hit by the crisis in terms of real output loss regardless of the measure used.<sup>6</sup> Countries that weathered the crisis relatively well include China, Ethiopia and Azerbaijan. The right-hand panel of chart 1 shows the geographical distribution of real output loss (cumLoss\_0907) between and within regions. Advanced economies in Europe were hit particularly hard by the crisis, followed by emerging economies in Eastern Europe and, to a lesser extent, CIS states. That said, it should be noted that the countries covered in our analysis felt the impact of the crisis at different times. In its first phase, the crisis was confined to advanced countries, spilling to Eastern Europe at end-2008. Advanced countries showed negative GDP growth rates already in 2008, while Eastern European countries and the CIS were hit by the downturn only in 2009. In cumulative terms, countries in Western Europe felt a larger impact on average than Eastern Europe and the CIS. The distribution here, however, is more widespread, meaning that there are (few) countries in these regions that posted very large output losses during the crisis. Non-European emerging markets were rather resilient during the financial crisis. One reason for this put forward by economic analysts was that Asian and in particular Latin American countries had improved their macroeconomic fundamentals as a consequence of their past crisis experiences by, inter alia, decreasing external deficits, improving the fiscal stance and sharply reducing foreign currency borrowing (see EBRD, 2009). Whether these arguments hold empirically is tested in section 4 by creating a cross section with global coverage. A robustness analysis to see whether our empirical results change when we employ output loss over the period 2008–09 (where CESEE countries should be affected more strongly based on the arguments made above) is provided in section 4.3.

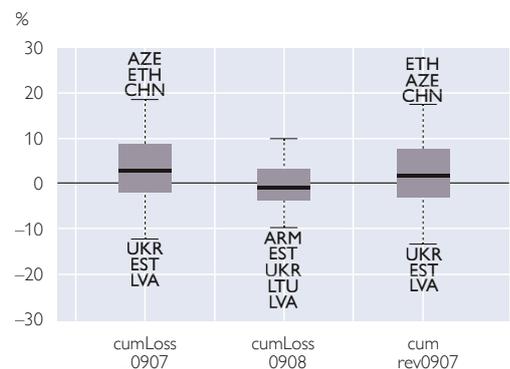
Chart 1

### Distribution of Real Output Loss

#### Real Output Loss - Geographical Breakdown



#### Measures of Real Output Loss



Source: Authors' calculations.

Note: Left-hand panel: measures of real output loss (cumLoss\_0907, cumLoss\_0908 and cum\_rev0907); right-hand panel: geographical breakdown of real output loss (cumLoss\_0907).

<sup>6</sup> Note that the first countries in emerging Europe experiencing a downturn in response to the global financial crisis were the Baltic states and Kazakhstan (Berglöf et al., 2009). While the Baltics are among the countries with the highest output losses over the full period under study, Kazakhstan managed to reduce the output loss by launching large fiscal stimulus packages (Barisitz and Lahnsteiner, 2010).

There is a great deal of uncertainty in the literature regarding the potential determinants of crisis severity. We have collected data on more than 60 candidate variables, which are listed in table 4. However, not all variables are available with global coverage. For most variables, the missing values expressed as a percentage of the total number of observations amount to between 0% and 5%, a reasonably small number. Instead of limiting our sample to those countries with a complete set of data, we use a regression-based data imputation method so that all variables have full sample coverage.<sup>7</sup>

The variables that feature prominently in applied work can be summarized in the following groups:

**Reserves:** Countries that have accumulated large reserves are expected to suffer less from external shocks in real terms (Frankel and Saravelos, 2010; Cecchetti et al., 2011). However, as put forward by Blanchard et al. (2010), central banks are in general reluctant to use reserves as a buffer, which may lead to reserve variables not being significant determinants of crisis severity. Reserves are measured using variables based on international reserves minus gold as well as foreign exchange. These measures are normalized alternatively by total GDP or external debt.

**Exchange rate regimes:** In empirical studies on the effects of the global crisis, countries with flexible exchange rate regimes tend to fare better on average than those with a nominal exchange rate anchor (e.g. Berkmen et al., 2009). Adjustment through a revaluation of the exchange rate may cushion the impact of the crisis on the real economy. This view is contrasted by findings of Blanchard et al. (2010), who argue that the positive effect of having a flexible exchange rate vanishes if one controls for other factors in the framework of linear regression models.

**Trade channel:** In parallel with a decline in GDP growth rates, many economies experienced a collapse in trade in the aftermath of the crisis. Berkmen et al. (2009) claim that relatively open economies (in terms of trade) are expected to be more vulnerable to a global shock. This holds in particular for countries exporting advanced goods as opposed to food and commodity exporters. The variables included in our analysis comprise total trade (exports plus imports) relative to GDP, the trade balance and sectoral trade patterns (share of manufacturing, petrol, food and merchandise trade in percent of total exports). In addition, we include a range of index measures to reflect different dimensions of globalization as an additional aspect of openness.

**Growth above potential:** Economic growth prior to the crisis was partly fueled by excessive credit growth and accompanied by current account misalignments, large capital inflows and high inflation. In particular, some economies in emerging Europe overheated, which may lead to a boom-bust cycle in times of distress. We try to measure excessive growth either directly – by an estimate of the output gap – or indirectly, via certain combinations of economic variables capturing misalignments in the economy (the current account, domestic credit growth, capital inflows and price pressures) and pre-crisis growth. The measure of the output gap

<sup>7</sup> In particular, we use the R package *mice*, which performs multiple imputation using fully conditional specifications. For a detailed account, see the references in the manual (R Development Core Team, 2011). To assess the robustness of our empirical results with respect to the data imputation method we use a bootstrapping-based algorithm (R package *AMELIA II*) as an alternative. The correlation of the PIP based on the two imputation methods for all four models estimated in section 4 is above 0.9, and we conclude that the particular choice of the imputation method does not affect our results qualitatively.

is based on the deviation from an estimate of potential GDP using the Hodrick-Prescott filter (see the appendix for further details).

**Misalignments of the real exchange rate:** Countries with real exchange rates out of line with fundamentals may be strongly affected by a crisis. In particular, overvalued exchange rates indicate a severe external risk and potential challenges for competitiveness. Amid increased (global) risk aversion, this may translate into a sudden stop of capital flows triggering a collapse in economic growth. We measure misalignments of the real exchange rate by a variant of an exchange rate market pressure index (EMP) in the vein of Aizenmann et al. (2010), which is fully described in table 4 in the appendix. Alternatively, we pursue a panel regression approach based on macrofundamentals that is part of the IMF's CGER toolkit to compute mispricements of the exchange rate (Lee et al., 2008, pp. 3).<sup>8</sup>

**Exposure to advanced countries:** Economies sharing a significant part of their trade or financial links with the U.S.A., where the crisis originated, are expected to have been hit harder by the global shock than rather isolated economies (Cecchetti et al., 2011). Since the crisis was first confined to advanced countries and spilled over to emerging Europe at the end of 2008, exposure to advanced economies may play an important role in explaining the severity of the global shock for emerging Europe. We thus include various measures of trade intensity vis-à-vis the U.S.A. and the EU-15 as well as a proxy for financial exposure to advanced countries (claims of foreign banks located in advanced economies).

**Financial channel:**<sup>9</sup> Since the crisis started out as a financial crisis, countries with high external debt, large macroeconomic imbalances and open financial markets were likely to suffer under larger real effects triggered by financial stress (Berkmen et al., 2009; Cecchetti et al., 2011; Giannone et al., 2010). We include various measures to proxy for macroeconomic imbalances comprising net FDI inflows, the current account, external debt and the Chinn-Ito index of financial openness.<sup>10</sup>

**Misalignments in the domestic credit market:** International investors are more likely to withdraw funds when global risks are on the rise if a country's domestic financial system is highly leveraged and the credit growth rate is high (Berkmen et al., 2009; Caprio et al., 2010; Cecchetti et al., 2011; Giannone et al., 2010; Lane and Milesi-Ferretti, 2010). Countries in emerging Europe benefitting from credit by parent banks located in Western Europe might be more resilient to funding

<sup>8</sup> Alternatively, one could directly estimate an equilibrium exchange rate by cointegration analysis. However, since the data span is typically rather short for the countries covered in this study and furthermore, a nonnegligible part of the countries are catching-up economies, a long-run equilibrium approach does not seem to be the most appropriate methodological strategy in our context.

<sup>9</sup> In a study which focuses explicitly on the financial determinants of the crisis, Caprio et al. (2010) find five factors reducing the probability of being in crisis in 2008: high net interest margins (giving banks the incentive to engage more strongly in traditional banking activities), an elevated level of banking concentration (which implies a higher charter value), a high level of private monitoring, low loan-to-deposit ratios and stringent restrictions on bank activities.

<sup>10</sup> The Chinn-Ito index is a widely used indicator to measure a country's degree of capital account openness (see e.g. Beine et al., 2011; and Yeyati and Williams, 2011, among other recent contributions). Other indicators that have been proposed in the literature are those outlined in Schindler (2009). Unfortunately, the country coverage of Schindler's data set is limited to around 90 countries, far fewer than those covered in this study. For those countries, however, the correlation of Schindler's measure with the Chinn-Ito financial openness indicator for the year 2006 is around 0.8. We thus conclude that our results would not be strongly affected by additionally considering Schindler's financial openness index.

outflows and, eventually, real output loss than their peers. We measure misalignments in the credit market by looking at domestic credit growth, deposit rates in the banking sector and an index measuring rules affecting the scope, accessibility and quality of credit information available through public or private credit registers.

**Fiscal discipline:** Countries that stood on a sound fiscal footing before the crisis had more room for fiscal maneuver to buffer the impact of the crisis on the real economy by launching stimulus packages or using other fiscal policy instruments (Berkmen et al., 2009). We include government debt and the government budget balance as measures of the fiscal stance. Note that the fiscal deficit is measured as an average over the period from 2000 to 2006 (as are the other flow variables in the analysis). This should take care of cyclical variations in the fiscal stance.

**Institutional quality:** In the wake of the financial crisis, economic observers called for policy action to be implemented in a timely and coordinated fashion. Countries with sound institutional frameworks are expected to be more effective in implementing policy action to counter the crisis. We measure the quality of institutions by the World Bank's strength of legal rights index as well as Transparency International's Corruption Perceptions Index.

### 3 The Econometric Model

We investigate empirically the nature of the potential drivers of real output loss using linear regression specifications of the following form:

$$100*(y_{09}/y_{07}) = I\alpha_s + X_s\beta_s + \varepsilon \quad (1)$$

with  $y_{09}/y_{07}$  denoting the cumulated real output loss over the period 2007 to 2009,  $X_s$  representing an  $N \times k_s$  matrix of potential covariates discussed in more detail in the next section and  $\varepsilon$  denoting an  $N$ -dimensional vector of random shocks assumed to be normally distributed, independent and homoskedastic. The use of such a parametric approach allows us to grasp the quantitative effect of potential crisis determinants, thus establishing empirically their relative importance. Since historical episodes of crises with the same scope and impact as the current one are scarce, other methods based on analyzing the individual experience of countries or decomposing variation exclusively by regional aggregates prove insufficient for our research question. In the empirical analysis we have  $N=153$  countries and a set of more than 60 candidate regressors. All potential crisis determinants are measured prior to the crisis (see appendix). We apply the convention of measuring flow variables as an average over a longer period (typically 2000 to 2006), while stock variables are measured at the end of 2006.<sup>11</sup>

The extensive number of candidate variables implies that problems related to model uncertainty may lead to seriously flawed inference. Model averaging methods base inference on a weighted average of regressions instead of single selected models, therefore no individual specifications need to be chosen (for an introduction see Hoeting et al., 1999; or Koop, 2003, among others). In the Bayesian framework, these weights arise naturally as posterior model probabilities (PMP) of the corresponding individual specifications.

<sup>11</sup> Due to data limitations, for some countries variables are measured before 2006.

Let us denote the set of (complementary) models by  $M=\{M_1, M_2, \dots, M_{2^K}\}$ , where  $K$  stands for the total number of explanatory variables. Inference on any parameter  $\delta$  in BMA takes the form:

$$p(\delta | y) = \sum_{j=1}^{2^K} p(\delta | M_j, y) p(M_j | y) \quad (2)$$

with  $p(\cdot | y)$  denoting posterior distributions and  $p(\cdot | M_j, y)$  denoting posterior distributions under the assumption that  $M_j$  is the true model. Inference on some parameter or combination of parameters  $\delta$  is based on single inferences under models  $M_j, j=1, \dots, 2^K$ , where the model-specific posterior densities are weighted by their respective posterior model probabilities ( $p(M_j | y)$ ). These (normalized) probabilities are obtained in a Bayesian setting using the integrated likelihood  $p(y | M_j) = \int p(y | M_j, \theta_j) p(\theta_j | M_j) d\theta_j$  and the respective model prior  $\bar{p}(M_j)$ ,

$$p(M_j | y) = \frac{p(y | M_j) \bar{p}(M_j)}{\sum_{l=1}^{2^K} p(y | M_l) \bar{p}(M_l)} \quad (3)$$

The posterior odds of two competing models are simply given by the product of the Bayes factor ( $p(y | M_i) / p(y | M_j)$ ) with the prior odds ( $\bar{p}(M_i) / \bar{p}(M_j)$ ). A key quantity in BMA is the posterior inclusion probability of a covariate, defined as

$$PIP_z \equiv \sum_{M_j: m_z=1}^{2^K} p(M_j | y)$$

with  $m_z=1$  indicating that variable  $z$  is included in the model. Variables whose PIP is close to one are interpreted as being very robust determinants, whereas low values of PIP imply that there is little evidence concerning the fact that the variable is part of the true model. While the sum in equation 2 is not directly computable for large values of  $K$ , Markov Chain Monte Carlo (MCMC) algorithms (Madigan and York, 1995; Fernández et al., 2001) can provide a reasonably good approximation of the required statistic. Bayes factor comparisons imply that models are weighted according to their goodness of fit, with an inherent reward for model parsimony. The Bayesian framework requires the specification of prior distributions on the model parameters  $\alpha$ ,  $\beta_s$  and  $\sigma^2$ . We place improper priors on the intercept  $p(\alpha) \propto 1$  and variance  $p(\sigma) \propto \sigma^{-1}$ , reflecting lack of prior information. BMA allows us to distinguish a priori between models by ascribing distinct a priori weights to the regression models. The sheer number of potential models, however, leads us to opt for an uninformative prior on the model space.<sup>12</sup> Finally, we also need to elicit priors over the slope coefficients  $\beta_s$ . We follow the standard convention in BMA and assume a zero-centered normal distribution scaled by Zellner's  $g$  (Zellner, 1986) hyperparameter,

$$\beta_s | \sigma^2, M_s, g \sim N(0, \sigma^2 g (X_s' X_s)^{-1}) \quad (4)$$

<sup>12</sup> In the vein of Ley and Steel (2010), we elicit a binomial-beta prior for inclusion of a given variable, with a prior expected model size of  $K/2$  regressors.

The penalty in terms of marginal likelihood for including new variables in the model can be regulated through the hyperparameter  $g$ . In our application, following Feldkircher and Zeugner (2009) and Ley and Steel (2010), we abstain from fixing  $g$  to a particular value. Instead, we choose to make it data dependent and use a so-called hyper- $g$  prior,<sup>13</sup> which has been shown to lead to more robust inference (Feldkircher and Zeugner, 2011). All computations carried out in section 4 were done with the R package BMS.<sup>14</sup>

## 4 The Determinants of Crisis Severity: Results

### 4.1 General Results

The results of the BMA exercise under the set of priors specified above are presented in table 1. We report the posterior inclusion probability (PIP) of each variable and the mean of the posterior distribution of the corresponding parameter (post mean) together with its standard deviation (post SD). The posterior moments are based on the full set of evaluated models, including those which do not include the variable scrutinized (where the corresponding parameter is thus zero). When interpreting the results, we focus first on the importance of a respective covariate as a determinant of crisis severity, where we follow the literature and label variables with a PIP above 0.5 as robust.<sup>15</sup> Second, we assess the precision with which a coefficient was estimated by calculating the ratio of posterior mean to posterior standard deviation. In the vein of Masanjala and Papageorgiou (2008), variables for which this ratio exceeds 1.3 in absolute terms are dubbed effective and marked by an asterisk in the estimation tables.

The results of our baseline model (model 1) are presented in the first three columns of table 1. For the sake of brevity the table provides only the subset of results for the most important determinants in terms of PIP. The full results are available from the authors upon request. Our analysis reveals that the crisis experience was very heterogeneous across countries, which can be inferred from the fact that different sets of country (group) dummy variables appear robust. The EU-15 and CESEE, in particular Ukraine and the Baltics, were hit significantly harder by the crisis than comparable economies in other parts of the world. Since the Baltics and Ukraine are part of CESEE the corresponding estimated effects are to be interpreted as “on top of” the coefficient estimate attached to the CESEE dummy. Robust regional dummy variables imply sub-sample-specific intercept terms. These fixed effects do not add to our understanding of the crisis effects beyond pointing out that region-specific characteristics that are not measured by our variables appear important. A separate treatment of the corresponding sub-samples, however, would be appropriate only if the slope coefficients in these sub-samples were different and enough observations were available to allow pure region-specific models. We explicitly test for differences in the slope coefficients for CESEE in the next section. That said, the robustness of these country group

<sup>13</sup> We anchor the hyper- $g$  prior such that the prior expected shrinkage factor ( $g/(1+g)$ ) matches the one induced by the unit information prior ( $g/(1+g)=N/(1+N)$ ). For more details see Feldkircher and Zeugner (2009).

<sup>14</sup> See <http://bms.zeugner.eu>.

<sup>15</sup> Since we have elicited a non-informative prior on the model space we refer to variables as robust if their PIP is above 0.5, a classification which can also be justified on predictive grounds (Barbieri and Berger, 2003).

dummies comply with the descriptive analysis carried out in section 2, thus enhancing confidence in our empirical model and the data we use.

Apart from country group dummy variables, we find four other factors that help robustly explain cross-country differences in output loss: the average annual growth rate of real GDP over the period from 2000 to 2006 (*real.gdp.gr\_0006*), the level of real GDP per capita in 2006 (*rgdpcap\_06*) and – marginally – a measure for real exchange rate overvaluation in 2006 (*reerm\_06*) as well as a proxy for trade exposure to the U.S.A. (*imp.from.US.gdp\_0006*), the economy where the crisis originated. The level of real GDP per capita in 2006 is negatively associated with real output loss, while economies that entered the crisis with buoyant growth were more resilient to the global shock. This is consistent with the fact that the crisis was on average more pronounced in advanced economies that had experienced low growth prior to the crisis coupled with high levels of real GDP per capita. Note that controlling for income levels does not reduce the robustness of the CESEE dummy, which implies that emerging Europe was hit harder by the crisis than other countries with similar levels of development. We also find marginal evidence for real exchange rate misalignments increasing crisis severity: Countries whose currencies were overvalued in 2006 were less resilient to the global downturn. However, the coefficient is relatively small and not well estimated. Finally, we find marginal evidence for a stronger impact of the crisis for countries with strong trade links with the U.S.A. Again, the coefficient is not as precisely estimated as those of the more robust variables.

The empirical evidence from our model points to more severe downturns in the Baltics, Ukraine and CESEE in general. While strong economic growth fits well with the state of economic development of these countries in terms of income

Table 1

## Estimation Results

	Model 1			Model 2		
	PIP	Post mean	Post SD	PIP	Post mean	Post SD
Baltics	<b>1.000</b>	<b>-17.213*</b>	<b>3.187</b>	<b>1.000</b>	<b>-16.530*</b>	<b>3.257</b>
rgdpcap_06	<b>0.926</b>	<b>-2.240*</b>	<b>0.945</b>	<b>0.891</b>	<b>-2.108*</b>	<b>1.020</b>
CESEE	<b>0.799</b>	<b>-4.264*</b>	<b>2.702</b>	<b>0.876</b>	<b>-5.140*</b>	<b>2.640</b>
UA	<b>0.885</b>	<b>-14.066*</b>	<b>6.906</b>	<b>0.840</b>	<b>-12.565*</b>	<b>7.135</b>
EU.15	<b>0.646</b>	<b>-3.588*</b>	<b>3.167</b>	<b>0.729</b>	<b>-4.282</b>	<b>3.192</b>
reerm_06	0.471	-0.008	0.010	<b>0.606</b>	<b>-0.011</b>	<b>0.011</b>
tradeExp.US.gdp_0006	0.415	-0.042	0.894	0.495	-0.053	0.966
imp.from.US.gdp_0006	0.488	-0.160	0.905	0.466	-0.167	0.976
real.gdp.gr_0006	<b>0.666</b>	<b>0.416</b>	<b>0.346</b>	0.398	0.229	0.329
pop_06	0.272	0.169	0.334	0.343	0.233	0.384
real.gdp.gr_0006#net.fdi.infl_0006	–	–	–	<b>0.587</b>	<b>0.022</b>	<b>0.021</b>
real.gdp.gr_0006#ext.debt.gdp_06	–	–	–	0.152	0.000	0.001
real.gdp.gr_0006#ca.gdp_0006	–	–	–	0.136	-0.003	0.009
real.gdp.gr_0006#chg.dom.credit_0006	–	–	–	0.105	0.000	0.001
real.gdp.gr_0006#infl_0006	–	–	–	0.097	0.002	0.010

Source: Authors' calculations.

Note: Model 1: baseline model; model 2: excessive growth model. The table shows posterior results for the variables with the highest PIP based on the estimation with the full set of variables listed in table 4 in the appendix. The full results are available from the authors upon request. The results are based on 10 million posterior draws after a burn-in phase of 5 million draws. For variables marked with an asterisk (\*) the standardized coefficient (posterior mean/posterior standard deviation) exceeds 1.3 in absolute terms; therefore these variables are dubbed "effective." Robust variables (PIP higher than 0.5) are in bold type.

convergence trends, growth may have been excessive (i.e. above potential) for some countries. To find out whether the fact that growth was not in line with macro fundamentals shaped crisis severity, we add extra variables to our analysis. In particular, we try to find out whether strong pre-crisis growth (*real.gdp.gr\_0006*) coupled with either strong net FDI inflows (*net.fdi.infl\_0006*), high external debt (*ext.debt.gdp\_06*), unsustainable current account deficits (*ca.gdp\_0006*), soaring credit growth (*chg.dom.credit\_0006*) or high inflation (*infl\_0006*) can be robustly associated with a stronger economic downturn during the financial crisis. In the empirical model we do this by including interaction terms of the aforementioned variables with pre-crisis growth. The variable names of the interaction terms are separated by # in table 1. The results for this setting shown in table 1 (columns 4 to 6) confirm the conclusions based on model 1 described above: Some regions suffered particularly strong downturns during 2008 and 2009 (Ukraine, Baltics, CESEE in general and EU-15), which cannot be explained by other variables, and overvalued currencies increased crisis severity as did trade exposure to the U.S.A. and a high level of economic development. On top of that, model 2 in table 1 reveals that countries with sound pre-crisis growth coupled with strong FDI inflows suffered less from the global shock, while the variable measuring exclusively pre-crisis growth turns out to be no longer a robust determinant of crisis severity.

#### 4.2 What Is Different in Emerging Europe?

The robustness of the CESEE dummy points to a specific response of real output in CESEE countries during the crisis, which differed from that in other parts of the world. The question remains: What makes emerging countries in CESEE different from the rest of the sample? We use interactions of the CESEE dummy with the other potential explanatory variables to assess whether the sensitivity of output loss to certain pre-crisis disequilibria in the region differs from that in other comparable economies. We expand our set of covariates to include 13 additional candidate regressors (prefixed by *cesee#* in table 2), which are interaction terms of the CESEE dummy with variables capturing the various potential transmission channels outlined in section 2. We also include the interactions of the excessive growth measures used in model 2 interacted with the CESEE dummy. We can thus test whether (a) other determinants play a role in explaining crisis severity in the CESEE region and (b) whether excessive growth before the crisis coupled with external disequilibria played a particular role in CESEE during the global financial crisis.

Including these interaction terms leads to a drop of the PIP associated with the CESEE dummy from 0.8 to a mere 0.17. In other words, the additional determinants can capture variation in the data that is specific to the CESEE sub-sample and that explains the differences captured by the dummy in table 1. Model 3 in table 2 confirms the crisis determinants identified previously: a high level of real GDP per capita prior the crisis, buoyant pre-crisis growth and strong trade links with the U.S.A.; regional dummies for Ukraine, the Baltics and the EU-15 appear robustly related to a stronger loss in real output during the crisis. Surprisingly, table 2 reveals that strong trade ties with the U.S.A. turned out to be a robust determinant of crisis severity for CESEE countries. The estimated elasticity is much larger than for the global sample, which appears to imply that the U.S. trade channel was one of the main drivers of the strong negative output effects of the crisis in emerging

Europe. However, a closer look at the data reveals that this result is largely driven by the results for two countries (Armenia and Georgia), which both had relatively strong trade links with the U.S.A. prior the crisis and experienced large losses in real output during the crisis. From a policy perspective, model 3 bears some further interesting insights: CESEE economies with high external debt levels coupled with strong pre-crisis growth incurred higher losses. In other words, for CESEE countries, signs of growth above potential during the boom years appear to be robustly associated with severe losses during the crisis.

We repeat the BMA exercise excluding the interaction term of trade links with the U.S.A. (because the results for this variable were driven by a very reduced group of economies) and the CESEE regional dummy. The results are summarized in table 2 (model 4). Model 4 identifies the same variables as model 3 and reveals similar coefficients in terms of magnitude. Apart from the robust crisis determinants in model 3, however, two further variables appear as robust determinants of crisis severity. First, net FDI inflows and sound pre-crisis growth partly cushioned the impact of the crisis in CESEE economies. Second, financial openness amplified the

Table 2

### Estimation Results with Interaction Variables for CESEE

	Model 3			Model 4		
	PIP	Post mean	Post SD	PIP	Post mean	Post SD
rgdpcap_06	0.929	-2.163*	0.889	0.908	-2.098*	0.937
real,gdp,gr_0006	0.651	0.428	0.363	0.655	0.415	0.350
EU,15	0.658	-3.634	3.143	0.654	-3.726	3.242
UA	0.702	-10.425	8.116	0.604	-8.890	8.478
imp,from,US,gdp_0006	0.511	-0.149	0.708	0.514	-0.152	0.697
tradeExp,US,gdp_0006	0.490	-0.074	0.699	0.478	-0.072	0.687
Baltics	0.600	-8.197	7.787	0.457	-5.340	6.654
cesee	0.169	1.390	4.273	0.103	0.302	2.726
cesee#real,gdp,gr_0006#ext,debt,gdp_06	0.564	-0.014	0.015	0.682	-0.019	0.015
cesee#real,gdp,gr_0006#net,fdi,infl_0006	0.398	0.021	0.035	0.502	0.036	0.046
cesee#real,gdp,gr_0006#chg,dom,credit_0006	0.094	0.000	0.002	0.092	0.000	0.002
cesee#real,gdp,gr_0006#infl_0006	0.069	0.000	0.009	0.066	0.000	0.009
cesee#real,gdp,gr_0006#ca,gdp_0006	0.102	0.001	0.042	0.117	0.007	0.063
cesee#real,gdp,gr_0006	0.157	-0.125	0.547	0.300	-0.428	0.795
cesee#FinOpenn_06	0.293	-2.278	4.169	0.588	-5.342	5.228
cesee#reerm_06	0.135	0.008	0.031	0.198	0.017	0.042
cesee#ca,gdp_0006	0.106	-0.047	0.267	0.149	-0.106	0.409
cesee#genGovDebt,gdp_06	0.148	0.015	0.047	0.144	0.015	0.047
cesee#net,fdi,infl_0006	0.426	0.277	0.420	0.373	0.226	0.461
cesee#tradeExposureUS_0206	0.691	-1.761	1.446	–	–	–
cesee#adv,claims,gdp_06	0.203	-0.016	0.039	0.103	-0.005	0.024
cesee#legRightsIndex_06	0.094	0.029	0.229	0.089	0.033	0.226
cesee#tradeExposureEU15,gdp_0006	0.083	-0.001	0.027	0.085	0.003	0.029
cesee#dGap_0006Exo	0.105	0.008	0.042	0.084	0.004	0.033
cesee#int,res,gdp_06	0.085	0.005	0.061	0.082	0.006	0.059
cesee#chg,dom,credit_0006	0.080	-0.001	0.012	0.073	-0.001	0.015
cesee#Floater	0.072	0.077	0.837	0.065	-0.018	0.769

Source: Authors' calculations.

Note: Model 3: crisis determinants in CESEE; model 4: crisis determinants in CESEE without trade interaction. The table shows posterior results for the variables with the highest PIP based on the estimation with the full set of variables listed in table 4 in the appendix. The full results are available from the authors upon request. The results are based on 10 million posterior draws after a burn-in phase of 5 million draws. For variables marked with an asterisk (\*) the standardized coefficient (posterior mean/posterior standard deviation) exceeds 1.3 in absolute terms; thus these variables are dubbed "effective." Robust variables (PIP greater than 0,5) are in bold type.

impact of the crisis in CESEE. These two variables may be of particular interest to policymakers since capital flow management measures are currently back on the political agenda in many emerging market economies. Moreover, this finding may also support removing any remaining obstacles to FDI inflows.

Finally, we assess the overall goodness of fit of our models. The  $R^2$  for the median model, which includes all the covariates with a PIP above 0.5, ranges from 0.58 (model 1) to 0.65 (model 3). We can assess how much of the variation in output loss can be captured by our models for the CESEE countries only. Here the  $R^2$  ranges from 0.63 (model 1) to 0.77 (model 3). A very considerable proportion of the variation in output loss during the crisis in the region can be explained through differences in initial income, macroeconomic imbalances coupled with overheating and differences in the degree of financial openness and net FDI inflows.

### 4.3 Robustness Checks

In this section we assess the robustness of our results. We perform the BMA analysis using forecast revisions as well as the cumulated output loss for 2008–09 as the dependent variable. Our results are very robust to these changes in the dependent variable. Table 3 shows the correlation between the posterior inclusion probabilities based on the three BMA exercises.<sup>16</sup> Correlations across posterior inclusion probabilities are very high, implying that our results provided in the previous section do not appear to be sensitive to the measure we employed to capture output loss

severity during the crisis.

A further check concerning the robustness of crisis intensity determinants can be conducted by analyzing whether parameter estimates retain their sign when the specification is changed. This can be summarized by the ratio of the number of models where the posterior mean attached to a coefficient has been positive to the total number of regression models where the corresponding variable has been included. For each of the four model specifications we saved the best 1,000 models in terms of posterior model probabilities ( $p(M_i|y)$ ) and calculated the ratio mentioned above. For all the variables identified as robust in the text, the ratio is smaller than 1%. This means that the robustly identified determinants do not change sign regardless of which other variables are included in the regression model. Thus their effect on crisis severity (enhancing or dampening) can be regarded as very stable.

Table 3

#### Correlation of Posterior Inclusion Probabilities (PIP)

	cum-Loss_0907	cum_rev0907	cum-Loss_0908
<b>Model 1</b>			
cumLoss_0907	1.000	0.890	1.000
cum_rev0907	0.890	1.000	0.891
cumLoss_0908	1.000	0.891	1.000
<b>Model 2</b>			
cumLoss_0907	1.000	0.907	1.000
cum_rev0907	0.907	1.000	0.907
cumLoss_0908	1.000	0.907	1.000
<b>Model 3</b>			
cumLoss_0907	1.000	0.853	1.000
cum_rev0907	0.853	1.000	0.857
cumLoss_0908	1.000	0.857	1.000
<b>Model 4</b>			
cumLoss_0907	1.000	0.852	1.000
cum_rev0907	0.852	1.000	0.854
cumLoss_0908	1.000	0.854	1.000

Source: Authors' calculations.

Note: Correlation of posterior inclusion probabilities and posterior means across BMA exercises based on three different dependent variables: (a) cumulated output loss 2007–09, (b) forecast revisions and (c) cumulated output loss 2008–09.

<sup>16</sup> Full results of the BMA analysis for the cumulated output loss over the period 2008–09 and the forecast revisions for 2009 are available from the authors upon request.

## 5 Conclusions

In mid-2007 the financial crisis started to unfold in the U.S.A., with the American banking sector facing severe troubles on the back of systematically mispriced assets. The crisis subsequently spread to the rest of the world. However, the severity of the effects of the financial crisis on the real economy varied strongly across countries. This raised the question whether a country's macroeconomic and financial market situation at the time of the outbreak of the crisis shaped its effects on the real sector.

In this study we assess whether the variation in cross-country output loss during the 2008–09 financial crisis can be systematically related to pre-crisis country-specific vulnerabilities. We use a global sample comprising over 150 countries and more than 60 variables that capture initial macro and financial conditions that potentially help explain the distinct response of output to a global shock across countries. Using BMA techniques, we get results robust to model uncertainty. For the global sample we find that the level of income, exchange rate misalignments and the joint record of economic growth and FDI inflows prior to 2007 are robust determinants of output loss. We also find marginal evidence for economies with strong trade ties with the U.S.A. being on average less resilient to the crisis. Finally, the data clearly show a regional heterogeneity of crisis severity.

Compared to other emerging regions, CESEE economies were hit particularly hard in terms of output loss. CESEE countries have strong trade links with the EU and experienced fast pre-crisis growth fueled by strong credit growth and capital inflows. When assessing the drivers of output loss for this region we thus add measures of above-potential growth to the analysis. Our results for CESEE are threefold: First, we find that economies that experienced buoyant pre-crisis growth coupled with a high external debt level suffered more in terms of cumulated output loss. Therefore, growth financed through external funds appears as a robust source of risk for the region. Second, a measure for the country's degree of capital account openness (financial openness) turns out to be a factor amplifying the real effects of the global financial crisis, while financial deepening played a negligible role. This implies that financial openness was the dominant transmission channel of financial stress to CESEE. By contrast, we do not find empirical evidence for CESEE-specific trade links – neither with the U.S.A. nor with the Western EU countries – being determinants of crisis severity for the region. Finally, strong FDI inflows coupled with high pre-crisis growth cushioned the global shock for the CESEE region, which is in line with the results for the global sample. These results may be of particular interest to policymakers since capital flow management measures are currently back on the political agenda in many emerging market economies. Since our analysis reveals capital inflows to long-term investment as a factor improving an economy's risk-absorbing capacity, removing any remaining obstacles to FDI inflows may mitigate the effects of future global shocks to the region.

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## Appendix

Table 4

### Data Description and Summary Statistics

Output loss	Description	Source	Minimum	Mean	Maximum	NAs in %
cumLoss_0907	Real GDP 2009 over real GDP 2007	IMF, WEO April 2011	-21.45	3.37	22.34	0
cumLoss_0908	Real GDP 2009 over real GDP 2008	IMF, WEO April 2011	-17.96	-0.56	10.03	0
cum_rev0907	Revision of real GDP forecast for 2009, normalized by real GDP in 2007	IMF, WEO April 2008 and April 2011	-22.49	2.27	21.18	0
<b>GDP and investment rate</b>						
rgdpcap_06	2006 GDP per capita in PPP	Penn World Tables 7.0	5.92	8.78	10.85	0.7
chg_rgdpcap0006	Percentage change in GDP per capita in PPP 2000–2006	Penn World Tables 7.0	81.75	123.1	219.4	1.3
real.gdp.gr_0006	Average annual growth rate of real GDP 2000–2006	IMF, WEO April 2011	-0.05	4.34	14.47	0
invRate.gdp_0006	Investment rate in % of GDP, 2000–2006 average	IMF, WEO April 2011	7.31	22.74	54.38	2.6
<b>Trade and trade composition</b>						
exp_0206	Exports of goods in % of GDP, 2000–2006 average	UN Comtrade data base	1.65	28.44	162.9	0
imp_0206	Imports of goods in % of GDP, 2000–2006 average	UN Comtrade data base	6.71	37.4	156	0
openness_0206	Exports and imports of goods in % of GDP	UN Comtrade data base	13.35	65.83	305.6	0.7
trade.balance_0206	Trade balance in % of GDP, 2000–2006 average	UN Comtrade data base	-60.28	-9.03	45.38	0
manuf.to.totExp_0006	Exports of manufactured goods in % of total exports, 2000–2006 average	UN Comtrade data base	0	13.38	78.97	0
petrol.to.Exp_0006	Exports of petroleum, petroleum products and related materials in % of total exports, 2000–2006 average	UN Comtrade data base	0	13.21	96.57	1.3
food.to.Exp_0006	Exports of food and live animals in % of total exports, 2000–2006 average	UN Comtrade data base	0.05	18.48	97.6	0
merchTrade.gdp_0006	Merchandise trade in % of GDP, 2000–2006 average	World Bank, WDI	19.39	68.51	313.8	0
<b>Current account and savings</b>						
ca.gdp_0006	Current account in % of GDP, 2000–2006 average	IMF, WEO April 2011	-26.53	-2.32	50.85	0
gross.savings_06	Gross savings in % of GDP, 2006	World Bank (WDI), IMF (IFS) and www.nationmaster.com	-20.24	21.54	64.72	1.3
<b>Money and inflation</b>						
money.gdp_06	Money and quasi money (M2) in % of GDP, 2006	World Bank, WDI	13.78	62.86	260.5	2.6
chg.money.gdp_0006	Percentage change in money and quasi money (M2) in % of GDP 2000–2006	World Bank, WDI	-100	26.81	212.3	2.6
infl_0006	Inflation, 2000–2006 average	IMF, WEO April 2011	-1.2	6.02	48.02	0
<b>Credit and interest rate</b>						
dom.credit_06	Domestic credit provided by banking sector in % of GDP, 2006	World Bank, WDI	-13.42	65.62	305	2
chg.dom.credit_0006	Domestic credit provided by banking sector in % of GDP, percentage change from 2000 to 2006	World Bank, WDI	-260.8	16.03	353.7	1.3
creditInIndex_06	Credit depth of information index from 0 (low) to 6 (high)	World Bank, WDI	0	2.82	6	1.3
depRate_06	Deposit rate in % per annum, 2006	IMF, IFS database	0.57	5.49	22.3	5.2
<b>Institutional quality</b>						
legRightsIndex_06	Strength of legal rights index from 0 (weak) to 10 (strong)	World Bank, WDI	1	5.39	10	3.3
cpi_corruption_06	CPI (Transparency International's Corruption Perceptions Index)	Transparency International	2	4.25	9.6	9.2
<b>Debt</b>						
genGovDebt.gdp_06	General government debt in % of GDP, 2006	IMF, WEO April 2011	1.89	56.25	287.8	3.3
genGovBal.gdp_0006	General government budget balance in % of GDP, 2006	IMF, WEO April 2011	-22.15	-1.51	28.5	0.7
<b>External debt</b>						
ext.debt.gdp_06	External debt in % of GDP, 2006	IMF, IFS and IIP database	0	73.73	665.4	0
ext.debt.exp_06	External debt in % of total exports, 2006	IMF, IFS and IIP database	0	507	8000	0
adv.claims.gdp_06	Claims of foreign banks (advanced countries) in % of GDP, 2006	BIS	0.13	32.06	230.3	11.8

Source: Authors' calculations.

Note: NAs in % refers to the number of missing observations as a percentage of total observations.

Table 4 continued

## Data Description and Summary Statistics

Output loss	Description	Source	Minimum	Mean	Maximum	NAs in %
<b>Reserves</b>						
int.res.gdp_06	International reserves (excl. gold) in % of GDP, 2006	IMF, IFS database	0.2	17.85	90.49	0
int.res.ext.debt_06	International reserves (excl. gold) in % of external debt, 2006	IMF, IFS database	0	61.17	1424	0
forEx.gdp_06	Foreign exchange in % of GDP, 2006	IMF, IFS database	0.15	17.65	90.2	0
forEx.extDebt_06	Foreign exchange in % of external debt, 2006	IMF, IFS database	0	53.29	610.3	0
<b>Capital flows</b>						
net.fdi.infl_0006	Net FDI inflows in % of GDP, 2000–2006 average	IMF, IFS database	–5.24	5.73	35.85	5.9
net.fdi.infl_0006# net.fdi.infl_0006	Net FDI inflows in % of GDP squared, 2000–2006 average	IMF, IFS database	0.06	65.08	1285	5.9
<b>Trade exposure to U.S.A.</b>						
tradeExposure-US_0206	Goods imports from and exports to the U.S.A. in % of total exports, 2002–2006 average	UN Comtrade data base	0	13.29	96.94	1.3
tradeExp.US.gdp_0006	Goods imports from and exports to the U.S.A. in % of GDP, 2000–2006 average	UN Comtrade data base	0	8.49	45.61	0
exp.to.US.gdp_0006	Goods exports to the U.S.A. in % of GDP, 2000–2006 average	UN Comtrade data base	0	4.19	30.63	0
imp.from.US.gdp_0006	Goods imports from the U.S.A. in % of GDP, 2000–2006 average	UN Comtrade data base	0	4.3	31.09	0
<b>Trade exposure to EU-15</b>						
tradeExposure-reEU15_0006	Goods imports from and exports to the EU-15 in % of total exports, 2000–2006 average	UN Comtrade data base	4.3	19.32	113.8	1.3
tradeExposureEU15.gdp_0006	Goods imports from and exports to the EU-15 in % of GDP, 2000–2006 average	UN Comtrade data base	0.53	111.5	1547	0
exp.to.EU15.gdp_0006	Goods exports to the EU-15 in % of GDP, 2000–2006 average	UN Comtrade data base	0.01	8.95	60.37	0
imp.from.EU15.gdp_0006	Goods imports from the EU-15 in % of total exports, 2000–2006 average	UN Comtrade data base	0.44	10.37	53.44	0
exp.to.EU15.exp_0006	Goods exports to the EU-15 in % of total exports, 2000–2006 average	UN Comtrade data base	0.06	33.79	90.98	0
<b>Population and unemployment</b>						
pop_06	Population in millions	IMF, WEO April 2011	–2.98	1.94	7.18	0
pop.gr_0006	Population growth, percentage change 2000–2006	IMF, WEO April 2011	–9.33	8.86	43.57	0
unempl_06	Unemployment rate, 2006	IMF, IFS and WEO	0.6	11.45	77	7.8
<b>Monetary regime</b>						
Floater	Dummy variable for countries with no exchange rate anchor	Authors' calculations based on	0	0.25	1	0
inflTarg	Dummy variable for inflation targeters	IMF classification (2008)	0	0.22	1	0
<b>Exchange rate misalignment and output gap</b>						
reerm_06	Measure for overvaluation of the real exchange rate based on a panel regression on macro fundamentals, in %, 2006	Authors' calculations based on the IMF's CGER assessment, fully described in Lee et al. (2008)	–110.6	15.5	531.2	0.1
emp_chg_06	Exchange market pressure index covering changes in the nominal exchange rate and changes in international reserves, in %, 2006; negative values indicate pressure in the exchange market.	Authors' calculations based on Aizenmann et al. (2010)	–0.76	–0.05	0.86	0
outputGap_0006Exo	Deviation from trend output in % in 2006; calculation based on yearly GDP data up to 2006 using the Hodrick-Prescott Filter with the smoothness parameter $\lambda=100$	Authors' calculations	–11.62	–2.03	3.86	0
dGap_0006Exo	Ratio of how often a country was above trend growth in the period from 2000 to 2006	Authors' calculations	0	45.94	85.71	0

Source: Authors' calculations.

Note: NAs in % refers to the number of missing observations as a percentage of total observations.

Table 4 continued

### Data Description and Summary Statistics

Output loss	Description	Source	Minimum	Mean	Maximum	NAs in %
<b>Oil producer</b>						
oilExp		Authors' calculations	0	0.16	1	0
oilProd		Authors' calculations <a href="http://www.mongabay.com/reference/stats/rankings/2173.html">http://www.mongabay.com/reference/stats/rankings/2173.html</a>	0	0.55	12.62	0
<b>Globalization indicator</b>						
kof_persCont_06	KOF Globalization Index, personal contact, 2006 (subcomponent of the Social Globalization Index)	KOF Globalization Index, <a href="http://globalization.kof.ethz.ch/">http://globalization.kof.ethz.ch/</a>	11.27	51.32	93.38	0.7
kof_infFlows_06	KOF Globalization Index, information flows, 2006 (subcomponent of the Social Globalization Index)		30.69	68.06	97.95	0
kof_cultProx_06	KOF Globalization Index, cultural proximity, 2006 (subcomponent of the Social Globalization Index)		1	34.82	95.43	0
kof_politGlob_06	KOF Political Globalization Index, 2006		1.54	68.01	98.01	0
kof_overallGlob_06	KOF Overall Globalization Index (economic, political and social), 2006		28.64	59.31	92.42	0
<b>Trilemma indicators</b>						
monInd_06	Monetary independence index (1=most independent)		0	0.68	1	2.6
er:stab_06	Exchange rate stability index (1=most stable)	Aizenmann, Chinn and Ito, <a href="http://web.pdx.edu/~ito/trilemma_indexes.htm">http://web.pdx.edu/~ito/trilemma_indexes.htm</a>	0	0.37	0.94	2.6
FinOpenn_06	Financial Openness Index, measuring a country's degree of capital account openness (Chinn-Ito index, 1=most open)		0	0.56	1	2.6
<b>Regional dummy variables</b>						
cesee	Regional dummy for emerging CESEE countries (ALB, ARM, AZE, BGR, BIH, CZE, EST, GEO, HRV, HUN, KAZ, LTU, LVA, MDA, MKD, POL, ROM, RUS, SRB, SVK, SVN, UKR).	Authors' calculations	0	0.15	1	0
baltics	Regional dummy for the Baltics	Authors' calculations	0	0.02	1	0
UA	Regional dummy for Ukraine	Authors' calculations	0	0.01	1	0
EU15	Regional dummy for the EU-15 (here: GBR, AUT, BEL, DNK, FRA, DEU, ITA, NLD, SWE, FIN, GRC, IRL, PRT, ESP). Note that we excluded Luxembourg from the estimations.	Authors' calculations	0	0.09	1	0
latam	Regional dummy for Latin America	Authors' calculations	0	0.2	1	0
africa	Regional dummy for Africa	Authors' calculations	0	0.27	1	0
eastAsia	Regional dummy for east Asian countries (BRN, CHN, HKG, IDN, JPN, KHM, KOR, MYS, PHL, SGP, THA, VNM)	Authors' calculations	0	0.08	1	0

Source: Authors' calculations.

Note: NAs in % refers to the number of missing observations as a percentage of total observations.

# Not So Trustworthy Anymore? The Euro as a Safe Haven Asset in Central, Eastern and Southeastern Europe

*The euro has been the predominant safe haven currency for households in Southeastern Europe (SEE). Recent results of the OeNB Euro Survey show that the sovereign debt crisis had a substantial impact on households' trust in the euro but nevertheless suggest that the euro has not been displaced as a safe haven currency. The euro remains more trusted than the local currencies, and households' preferences and decisions with regard to the currency denomination of their savings indicate that larger portfolio shifts are at present unlikely.*

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*JEL classification: D14, G01, G11*

*Keywords: Trust, portfolio choice, sovereign debt crisis, survey data, Central, Eastern and Southeastern Europe*

## 1 Introduction

The global financial crisis has often been interpreted as a crisis of trust. Trust levels in society in general had been declining for quite some time, but in 2008, there was an outbreak of distrust (e.g. Hosking, 2010). Trust, especially in banks, is of particular importance for financial development (Guiso et al., 2004). Therefore, research into how the global crisis affected trust in banks and whether the impact was temporary or permanent intensified (e.g. Knell and Stix, 2009). For Central, Eastern and Southeastern Europe (CESEE), results from the OeNB Euro Survey showed a decline of trust in banks as a consequence of the global financial crisis (Dvorsky, Scheiber and Stix, 2009).

With the sovereign debt crisis, the issue of trust is back on the agenda for CESEE, albeit in a different way. The ownership and use of financial assets denominated in euro is a widespread phenomenon in CESEE. In Central and Eastern Europe (CEE), euroization of assets is mainly driven by transaction motives, while in SEE, the euro serves as a safe haven currency with a high degree of both currency and deposit substitution (Scheiber and Stix, 2009). Research suggests that one reason for euroization is a lack of confidence in the domestic currency. More precisely, memories of past economic turbulence, in particular high and volatile inflation, will fade only very slowly even if current monetary policy is credible (e.g. Fernández-Arias, 2006). The sharp depreciations of several currencies in CESEE in the wake of the global financial crisis had an impact on how households in CESEE view the stability of their local currencies (Stix, 2010).

Does the ongoing sovereign debt crisis have a similar impact on how households view the stability of the euro, the safe haven currency? And is this reflected in households' expectations as to when the euro will be introduced in the EU Member States? Whereas changes in the level of trust in banks could especially influence households' decisions to save in cash or hold deposits, changes in the relative assessment of the local versus the safe haven currency could have an impact on households' preferences and decisions regarding the currency denomination of their savings. This study presents recent evidence from the OeNB Euro Survey on how households view the stability of the euro versus the local currency and

<sup>1</sup> Oesterreichische Nationalbank, Foreign Research Division, [elisabeth.beckmann@oenb.at](mailto:elisabeth.beckmann@oenb.at), [thomas.scheiber@oenb.at](mailto:thomas.scheiber@oenb.at). The authors gratefully acknowledge comments by Doris Ritzberger-Grünwald.

introduces novel results on households' preferences regarding the currency denomination of their savings.

## 2 Trust in the Euro

The OeNB Euro Survey has been conducted among households in five EU Member States and five (potential) candidate countries on a semiannual basis since 2007. The survey provides a unique source of information on the extent and the reasons behind the use of foreign currency-denominated assets. It also provides current information on households' sentiments and economic expectations as well as on trust indicators.<sup>2</sup>

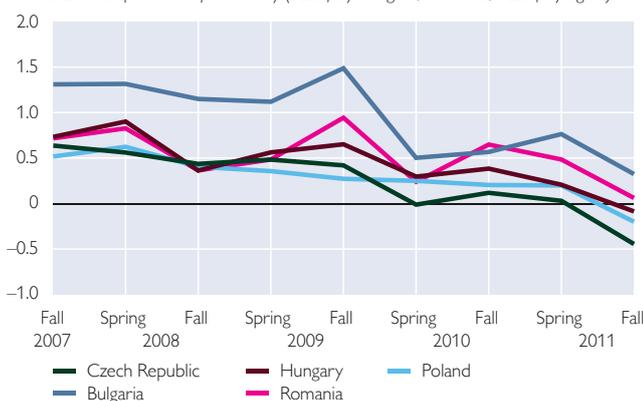
According to the findings of the latest survey conducted in fall 2011, households' trust in the euro had been affected by the sovereign debt crisis. Consent to the statement that "the euro will be a very stable and trustworthy currency over the next five years" declined in all countries in October and November 2011 (see chart 1). The rebound in sentiments, which had been found for some SEE countries in spring 2011, was reversed substantially. In the Czech Republic, Poland and Hungary, the assessment of the future stability and trustworthiness of the euro even fell into negative territory for the first time since the beginning of the survey in 2007. In the remaining seven countries, trust declined, but still remained positive.<sup>3</sup>

Chart 1

### Consent to the Statement: Over the Next Five Years, the Euro Will be a Very Stable and Trustworthy Currency

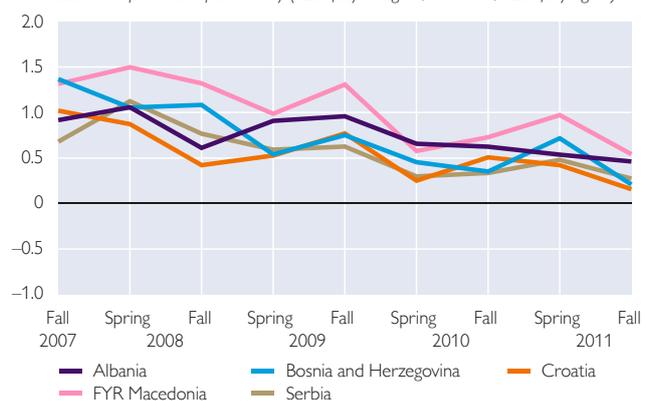
#### EU Member States

Normalized sample means per country (-2.5 fully disagree, 0 neutral, +2.5 fully agree)



#### (Potential) Candidate Countries

Normalized sample means per country (-2.5 fully disagree, 0 neutral, +2.5 fully agree)



Source: OeNB Euro Survey.

Note: Respondents were asked whether they agreed or disagreed with the statement above on a scale from 1 (fully agree) to 6 (fully disagree).

<sup>2</sup> For a summary of recent results, go to <http://ceec.oenb.at>.

<sup>3</sup> For comparison, trust in the euro has also been negatively affected by the sovereign debt crisis within the euro area. The share of euro area respondents (European Commission, 2010) who agreed that "generally speaking, the euro is a good thing" decreased from around 70% in 2008 and 2009 to 67% in September 2010. Results for 2011 had not been published by the editorial closing date (April 18, 2012), but the trust level is likely to have deteriorated further in 2011. Results of the OeNB Barometer, a quarterly survey of the OeNB for Austria, show that during the course of 2011, respondents' satisfaction with the euro dropped to 48% in the fourth quarter of 2011, down from 63% in the fourth quarter of 2010 (Fluch and Schlögl, 2012).

Table 1

**Expected Date for the Adoption of the Euro in EU Member States**

	2008 spring wave	2010 spring wave	2011 fall wave
Czech Republic	2013	2016	2020
Hungary	2015	2015	2020
Poland	2012	2015	2016
Bulgaria	2011	2013	2015
Romania	2013	2015	2016

Source: OeNB Euro Survey.

Note: The calculated median years are based on the answers to the question about the year in which respondents thought that the euro would be introduced in their country. Excluding respondents answering "Don't know" and "No Answer."

**3 Dampened Expectations for Euro Adoption in EU Member States**

In fall 2011, respondents were also asked when they expected the euro to be introduced in their country. Table 1 shows the median response to this question, i.e. the median year in which the euro is expected to be adopted in the given EU Member States. Comparing the median years from the 2011 fall wave with those resulting from the 2008 and 2010 spring waves reveals that, in 2011, in all of the five EU Member States analyzed except in Romania, people expected a much later date for the

euro's adoption in their country. In particular in the Czech Republic and in Hungary, 50% of respondents do not expect the euro to be introduced before 2020. The degree of uncertainty, measured as the share of "Don't know/no answer" replies, ranges from 18% (Hungary) to 56% (Romania).

The results of the OeNB Euro Survey are more pessimistic than the results obtained by the Flash Eurobarometer (European Commission, 2011) five months earlier in May 2011. The general sentiment that it will take longer before the euro may be introduced probably reflects (1) that Bulgaria, the Czech Republic, Hungary and Poland recently suspended their official target date for euro adoption and (2) that the culmination of the sovereign debt crisis in the fourth quarter of 2011 left a fairly strong mark on CESEE households' sentiments.

**4 Trust in the Euro versus Trust in the Local Currencies**

The OeNB Euro Survey also inquires into respondents' confidence in the respective local currencies. The resulting picture is rather mixed.<sup>4</sup> In Hungary, Romania and Serbia, the majority of respondents continues to distrust the local currency and, compared to spring 2011, assessments deteriorated even further. These results might reflect the exchange rate depreciations of the respective three local currencies vis-à-vis the euro over the past months. For another six countries, a slight overhang of negative statements can be found: While in Poland and Croatia trust levels remained roughly unchanged over the last year, confidence in the currencies of the Czech Republic and Bosnia and Herzegovina slid into negative territory. By contrast, Albanian and Bulgarian respondents revised their assessments for the better. Only in the Former Yugoslav Republic of Macedonia did the majority of households expect the local currency to be stable and trustworthy over the next five years.

In their actual portfolio decisions, households are, however, likely to be influenced by whether they consider the local currency or the euro to be more stable. Although the sovereign debt crisis triggered an unprecedented deterioration of trust in the euro, it did not lead to an overall change in the relative assessment of

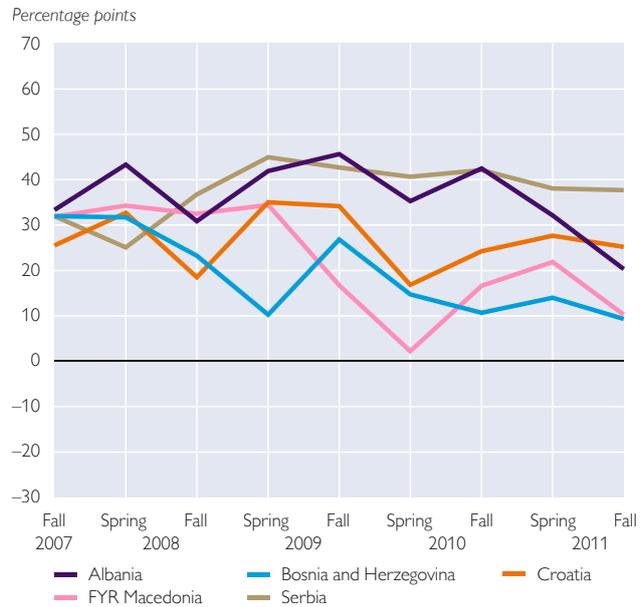
<sup>4</sup> The results are not shown in this study, but the respective tables and charts are available at <http://ceec.oenb.at>.

### Difference between Trust in the Stability of the Euro and the Local Currency

#### EU Member States



#### (Potential) Candidate Countries



Source: OeNB Euro Survey.

Note: The values represent the percentage share of respondents who agree that the euro will be very stable and trustworthy over the next five years minus the percentage share of respondents who agree that the local currency will be very stable and trustworthy over the next five years.

the local CESEE currencies vis-à-vis the euro. Chart 2 shows the percentage share of respondents who agree that the euro will be stable and trustworthy minus the percentage share of respondents who agree that the local currency will be stable and trustworthy. In eight of the ten countries, the share of respondents having trust in the euro still exceeds the share of those placing confidence in the local currencies. The exceptions are Poland, with about equal shares, and the Czech Republic, where a higher share of respondents trusts in the stability of the Czech koruna.

However, the difference in trust between the local currencies and the euro shrank substantially in seven of the ten countries compared with the values recorded before the outbreak of the sovereign debt crisis. Only in Serbia and Croatia did the gap between the local currency and the euro not narrow.

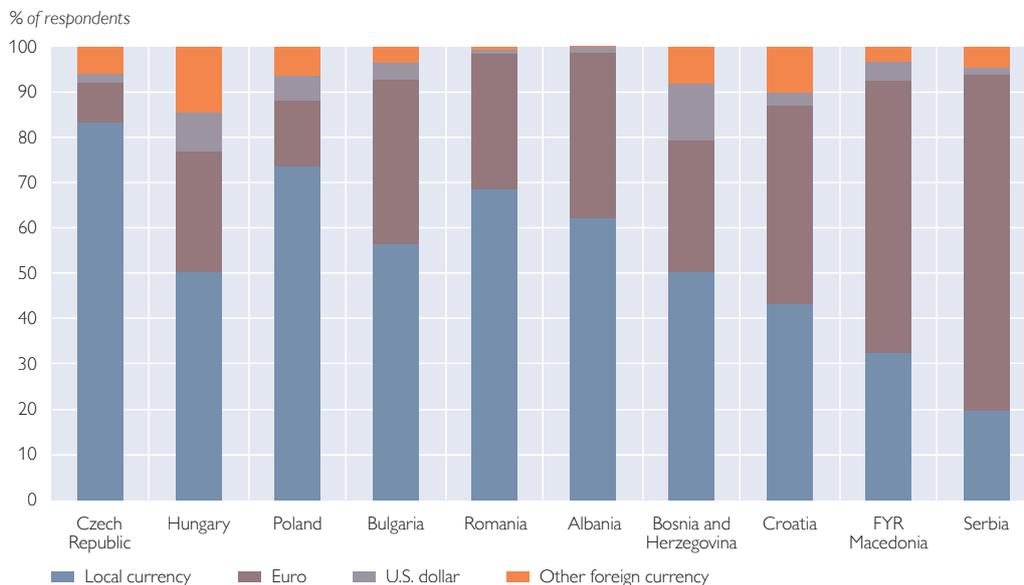
### 5 Currency Denomination of Savings – Household Preferences

Research on euroization concludes that the portfolio decisions of CESEE households are inter alia sensitive with respect to the credibility of the local currency vis-à-vis safe haven currencies, which in the case of the CESEE region is predominantly the euro (e.g. De Nicoló et al., 2005). Given households' reduced confidence in and growing uncertainty about the euro since the conclusion of the first support program for Greece in May 2010, one might expect households to adjust their saving preferences.

In fall 2011, all respondents were for the first time asked to state in which currency they would save if they had to deposit an amount worth twice their

Chart 3

### Choice of Currency Denomination for Hypothetical Savings



Source: OeNB Euro Survey (fall 2011).

Note: Respondents were asked which currency they would choose if they had twice their average monthly salaries to deposit in a savings account.

monthly salaries in a savings account. Chart 3 shows that the regional pattern of trust in the local currency versus trust in the euro is mirrored in saving preferences. In the Czech Republic and Poland, more than 70% of respondents would choose to save in the local currency. By contrast, in Serbia, only 20% of respondents would save in dinar and more than 70% would save in euro. Generally, the euro is chosen more frequently than the U.S. dollar. In Hungary and Bosnia and Herzegovina, the share of respondents who would deposit their savings in U.S. dollar is relatively high at 9% and 15%, respectively. Overall, however, these results show that, despite the loss of trust in the euro, a remarkably high share of respondents would continue to save in euro, especially in SEE.

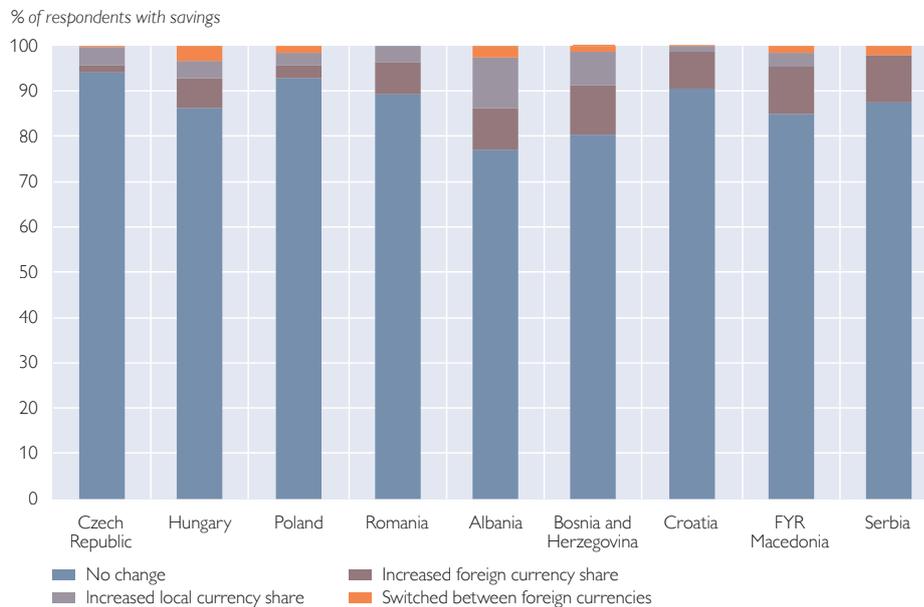
The picture might be different for respondents with actual savings as they have a higher stake in taking portfolio decisions. The static picture of savings deposits denomination<sup>5</sup> is remarkably similar to that of hypothetical savings in chart 3. In CEE, more than 85% of respondents owning a savings deposit hold it in the local currencies. By contrast, in Serbia, the analogous share is 16%, while around 70% have a savings deposit in euro. In Croatia, the shares of respondents with savings deposits in kuna and in euro are about equal at 44% and 47%, respectively.

An analysis of whether households reacted to the crisis by adjusting their portfolio also renders a rather stable picture. Only few households adjusted their portfolio composition after the crisis (see chart 4). Respondents with savings were asked whether they had changed the currency composition of their financial assets in response to the crisis since 2008. In all countries, the majority of respondents did not change the share of their financial assets denominated in foreign

<sup>5</sup> Here, these results are not shown in detail.

Chart 4

### Change in Currency Composition of Portfolios



Source: OeNB Euro Survey (fall 2011).

Note: The chart shows the percentage of savers who answered the question about whether they had taken any steps to increase or decrease the share of their foreign currency-denominated financial assets since 2008. No data are available for Bulgaria.

currency. In Croatia, the Czech Republic and Poland, the share of households that reacted to the crisis by changing their portfolio composition is below 10%. However, SEE households seem to have been more sensitive in their reactions, in particular in Albania, where 22% of respondents with savings responded to the crisis.

It is important to note that Euro Survey data refer to incidence and do not reflect amounts, i.e. the survey contains information about whether respondents have savings but not how much. Similarly, chart 4 shows the incidence of changes in portfolio composition but not the amounts converted. Respondents with higher savings might be more sensitive to crises in adjusting their portfolio composition, which could lead to changes in deposit substitution at the aggregate level. Looking at the aggregate data from national banks provides limited support for this hypothesis. In line with the picture of relative trust in the local and foreign currencies, deposit substitution is much lower in the CEE countries (at below 20%) than in the SEE countries, where it ranges between 40% (Albania) and 97% (Serbia). Overall deposit substitution has been very persistent, with some indication of a decline evident only in Bulgaria, Hungary and FYR Macedonia.

## 6 Summary

The recent OeNB Euro Survey finds a marked decline in trust in the euro, but provides evidence that the euro remains relatively more trusted than the local currencies. Households' preferences with regard to the denomination of their savings seem to have been little affected to date. As long as the euro is considered to be relatively more stable than the local currencies and is not superseded by another safe haven currency, it seems at present unlikely that larger portfolio shifts will occur.

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# CESEE-Related Abstracts from Other OeNB Publications

The abstracts below alert readers to studies on CESEE topics in other OeNB publications. Please see [www.oenb.at](http://www.oenb.at) for the full-length versions of these studies.

## **Euro Cash in Central, Eastern and Southeastern Europe**

Doris Ritzberger-  
Grünwald,  
Thomas Scheiber

A considerable part of the euro banknotes issued since 2002 is in circulation in Central, Eastern and Southeastern European (CESEE) countries. This can be attributed to the fact that numerous economic agents resorted to currency substitution in a parallel safe haven currency during the crisis arising in the course of their countries' transition to a market economy. On the other hand, euro cash holdings are related to some countries' upcoming accession to the European Union, which will oblige them to adopt the euro. Although countries have caught up economically, the degree of euroization in CESEE countries has hardly receded over the past years. According to surveys conducted by the Oesterreichische Nationalbank (OeNB), economically significant amounts of euro cash are primarily held by households in Southeastern Europe, which – unlike households in Central Europe – use euro cash as a store of value and partially as a means of payment in addition to their respective local currency. Policies introduced in CESEE countries to stabilize economies after the outbreak of the financial and economic crisis in 2008 have ultimately increased the public's confidence in the security of its savings deposits. The recent drop in euro cash holdings can therefore be attributed not only to the depletion of euro cash reserves during the crisis to finance necessary expenditures. It also seems to reflect a medium-term tendency to shift portfolios from (euro) cash to (euro) deposits.

Published in *Monetary Policy and the Economy Q1/12*.

## **Intra-Group Cross-Border Credit and Roll-Over Risks in CESEE – Evidence from Austrian Banks**

Markus Hameter,  
Mathias Lahnsteiner,  
Ursula Vogel

During the last decade several CESEE countries built up high external liabilities vis-à-vis foreign banking sectors, with Austrian banks being important creditors. The provision of cross-border credit allowed for rapid financial deepening in many of these countries but also led to a build-up of vulnerabilities to negative spillovers. This study points out that Austrian banks granted a considerable part of direct cross-border credit to affiliated borrowers in CESEE, in particular to their own bank subsidiaries. To our knowledge, this is the first paper that examines the differences between direct cross-border lending to affiliates and direct cross-border lending to nonaffiliates. Our analysis shows that intra-group cross-border credit from Austrian banks was more stable than lending to nonaffiliated borrowers during the 2008/09 financial crisis period. We argue that this is due to lower information asymmetries and parent banks' efforts to provide their subsidiaries with liquidity in times of financial distress to support their investments.

To be published in *Financial Stability Report 23*.

## Limited Fiscal Space in CESEE: Needs and Options for Post-Crisis Reform 68<sup>th</sup> East Jour Fixe of the Oesterreichische Nationalbank February 28, 2011

Markus Eller,  
Peter Mooslechner,  
Doris Ritzberger-  
Grünwald (eds.)

On February 28, 2011, the Oesterreichische Nationalbank (OeNB) organized its 68<sup>th</sup> East Jour Fixe entitled Limited Fiscal Space in CESEE: Needs and Options for Post-Crisis Reform. The East Jour Fixe workshop series was initiated by the OeNB in 1991 as a high-profile policy discussion forum on economic reforms and developments in Central, Eastern and Southeastern Europe (CESEE). In this context, participants from a wide range of backgrounds present their academic, political and professional expertise two or three times a year to a selected audience.

The 68<sup>th</sup> East Jour Fixe focused on the limited room for budgetary maneuver and on the limited resilience of public finance systems, which were revealed in the CESEE economies<sup>1</sup> during the 2008–09 financial and economic crisis. The workshop aimed at providing answers to three main questions: (1) What were the reasons for limited fiscal space? (2) What are the related implications and what kind of reforms are necessary to provide more fiscal space in the future? (3) Can an improved access to and a more effective use of international funds be considered as a possibility to create more fiscal space in CESEE?

The knowledge on fiscal policy developments is crucial for a central bank in order to properly guarantee price stability, to contain inflation expectations and to keep financial markets stable. Moreover, the workshop's focus on CESEE economies does not only reflect a strategic research priority of the OeNB but was also highly topical as the financial and economic crisis was the first real test for fiscal positions and institutions in most CESEE countries since the start of transition. During the crisis, only a few countries were able to implement significant stimulus packages, while fiscal headline positions deteriorated strongly in most countries of the region (however, on average, public deficit and public debt ratios increased less in the CESEE EU Member States than in the EU-27).

To answer the above mentioned questions, the workshop brought together distinguished experts in the field, from both international institutions and public entities located in CESEE. Two introductory keynote speeches and the presentations in session 1 tried to identify the main reasons for limited fiscal space and showed how the crisis has affected fiscal policy in CESEE. *Bas Bakker* from the IMF outlined in his keynote speech unprecedented fiscal adjustment measures that were necessary during the crisis. Besides, he emphasized the importance of appropriate fiscal consolidation in the region. In the second keynote address, *Karsten Staehr* from Tallinn University of Technology and Eesti Pank proposed the use of funded pensions as a countercyclical tool to create more fiscal space in CESEE.

In session 1, *Nadine Leiner-Killinger* from the ECB discussed the impact of fiscal policy structures and budgetary discipline on fiscal vulnerabilities, while *Markus Eller* from the OeNB elaborated the reasons of liquidity constraints that several governments in the region faced at the beginning of the crisis.

Session 2 featured a panel discussion among fiscal policy experts from CESEE public institutions – *Tomasz Jędrzejowicz* from Narodowy Bank Polski, *Petr Král* from Česká národní banka, *Neven Mates* from Hrvatska narodna banka and *Ludovít*

<sup>1</sup> The 68<sup>th</sup> East Jour Fixe focused mainly on the ten EU Member States from Central, Eastern and Southeastern Europe (CESEE) and partly on other countries in the region, such as Russia or Croatia.

*Ódor* from the Slovak Ministry of Finance – debating country-specific lessons and reform options to create more fiscal space in CESEE in the future.

Session 3 addressed the role of international funds in the expansion of fiscal space in CESEE as they are deemed to have served as valuable buffers during the crisis. *Philippe Monfort* from the European Commission brought in the respective European Commission's experience with Structural Funds. *Jean Vrla* from the European Investment Bank debated the role of countercyclical financing via multinational banks. Finally, *Christian Kummert* from Kommunalkredit Austria AG discussed the role of commercial banks in co-financing large-scale infrastructure projects via multinational banks and specifically elaborated on the funding of public-private partnership (PPP) projects in CESEE.

After an introductory article by Markus Eller, Peter Mooslechner and Doris Ritzberger-Grünwald (OeNB), which elaborates the issue of limited fiscal space more broadly and summarizes the main conclusions and policy implications of the 68<sup>th</sup> East Jour Fixe, this conference volume collects the papers according to their presentation order in the workshop. The underlying presentations and the workshop program are available at <http://ceec.oenb.at> (*Activities*).

Published as *WORKSHOPS – Proceedings of OeNB Workshops, No. 17*.

## Event Wrap-Ups

# 70<sup>th</sup> East Jour Fixe<sup>1</sup>

## Forecasting CESEE Growth in Turbulent Times

Compiled by  
Martin Feldkircher  
and Julia Wörz

### Introduction

The 70<sup>th</sup> East Jour Fixe, which was hosted by the OeNB on February 23, 2012, dealt with macroeconomic forecasting for Central, Eastern and Southeastern European (CESEE) economies amid high uncertainty in the international environment. Currently, with stress caused by the sovereign debt crisis in the euro area spilling over to the CESEE region, forecasters seem to be largely ignoring country specifics, competing in a race of continually revising forecasts downward. The behavior of professional forecasters in these times of heightened uncertainty has illustrated the need to thoroughly rethink existing forecasting techniques, which is what was discussed at the OeNB's 70<sup>th</sup> East Jour Fixe.

The keynote session was chaired by *Peter Mooslechner*, Director of the OeNB's Economic Analysis and Research Department. In his opening statement he stressed the importance of economic forecasting as a tool to inform policymakers by timely signaling deviations from the "norm." The global financial and economic crisis in 2008 and 2009 caught macroeconomic forecasters all over the world by surprise. Mooslechner thus raised the question whether forecasting itself was in crisis. He furthermore emphasized the specific challenges of forecasting CESEE growth, e.g. dealing with short time series that are often plagued by low data quality. According to Mooslechner, the region's strong economic ties with the euro area deserve particular attention as they constitute a growth pillar in good times but cause severe vulnerability during bad times. The future approach to forecasting will depend on whether the crisis turns out to be a one-time event or whether we are facing a new regime with changed mechanics and new forces at work.

### Forecasting CESEE Growth during the Crisis: Lessons Learnt, Lessons Forgotten, New Frontiers

In the first keynote address, *Elena Reitano*, Head of Unit responsible for macroeconomic surveillance of the Netherlands, the Czech Republic and Slovakia at the European Commission, provided a stocktaking of the lessons learnt (and the lessons forgotten) from forecasting CESEE growth in the crisis of 2008 and 2009. In 2008, the crisis highlighted the general need to incorporate the financial sector into statistical forecasting models. For the CESEE region, however, stress that originally emanated from the advanced economies was amplified more strongly by the trade channel than by the financial channel. Reitano emphasized that forecasting CESEE growth for 2009 had been particularly difficult, compared to other regions, owing to transition-related structural breaks and short time series. Looking ahead, debt overhang and possible repatriation of capital from foreign-owned banks to meet domestic capital requirements pose the key risks for the region.

### Modeling Strategies in a Variable Environment

The first session, chaired by *Doris Ritzberger-Grünwald*, Head of the OeNB's Foreign Research Division, gave an overview of different approaches to forecasting CESEE growth. Against the backdrop of the ongoing crisis, good forecasting

<sup>1</sup> The presentations and the workshop program are available at <http://ceec.oenb.at> (Events).

models first and foremost have to adapt quickly to changes in the external environment and, second, take into account the possibility of a crisis-related regime shift, as we may currently be witnessing. In this session, individual approaches to forecasting were discussed, with a critical review of their performance in these turbulent times.

In his presentation, *Tibor Hlédik*, Director of the Macroeconomic Forecasting Division at the Czech National Bank (CNB), focused on the experience gained during the global crisis in terms of forecasting developments of the Czech economy. In a backward-looking analysis of forecasting errors made, he disentangled the portion of the errors that were due to overly confident external assumptions from those inherent to the statistical properties of the CNB's forecasting model. He concluded that accurate growth forecasts for the Czech Republic largely depend on correct forecasts of growth and interest rate developments in the euro area. It turned out that financial frictions were not among the drivers of the recession in the Czech Republic, which was mainly caused by a foreign demand shock. As examples of the successful use of expert judgment at the CNB, Hlédik cited adjustments of foreign demand and nominal wage growth.

*Julia Wörz*, expert for business cycle and structural analyses at the OeNB's Foreign Research Division, presented the in-house forecasting model FORCEE. Wörz explained how the country-specific variations of the model are used to forecast key macroeconomic variables for Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania. The empirical country models are embedded in a structural co-integration framework and thus combine the merits of economic theory-informed and purely data-driven approaches to forecasting. The final forecast, which is based on the models' output, relies on the judgment of the division's country experts in terms of economic plausibility. In an evaluation exercise, the model turned out to forecast well, and the structural parameters are consistent with economic theory for most of the countries. Wörz stressed the successful use of scenario analysis as a tool to model the rapidly changing external environment.

*Peter Havlik*, Deputy Director and Senior Economist at the Vienna Institute for International Economic Studies (wiiw), provided an overview of the institutions, central banks and private companies that produce forecasts for CESEE economies. In an ex post evaluation, Havlik noted that the growth forecasts these organizations had released for 2009 all turned out to be inaccurate. The wiiw provides expert-informed demand component forecasts for 17 countries in the region. Against the backdrop of the sharp downward revisions of the GDP growth projected for 2012, Havlik argued against statistical models. Focusing on Russia, he noted that, while cuts in imports provided a buffer for the economy during the global crisis in 2008 and 2009, the contribution of net exports is expected to be negative for the years ahead.

### **Nowcasting – Economics in Real Time**

In his keynote address, *Domenico Giannone*, professor at Université Libre de Bruxelles, highlighted the importance of nowcasting. Despite the fact that economic data is almost always published with a considerable publication lag of up to one quarter (e.g. for GDP and its components), the issue of nowcasting has only very recently attracted attention among professional forecasters. Basically,

information about the current state of the economy can be obtained by following two very different approaches. While surveys offer pure judgment-based information, nowcasting provides completely judgment-free estimates. Giannone presented a highly automatized nowcasting tool, which he had developed with a number of co-authors. This flexible econometric tool can deal with ragged-edge data and mixed frequency and provides continuous output on a daily basis. Especially as regards the short horizon, the judgment-free model has proven more accurate than a naive forecast. The speaker recently developed a nowcasting model for Poland consisting of only two indicators (purchasing managers index and industrial production). The question as to which number of indicators should be ideally included in such models came up during the subsequent discussion; there was general consensus that more indicators do not necessarily improve the accuracy of the nowcast. The discussion revealed concerns that an ever higher frequency of available indicators (including the nowcasts) may increase volatility in the markets and trigger additional market reactions. In Giannone's view, the nowcast only summarizes information which is already available and thus cannot introduce additional volatility.

### **Alternative Approaches to Forecasting CESEE Growth**

In the second session, chaired by *Peter Backé*, Deputy Head of the OeNB's Foreign Research Division, alternative approaches to short-term forecasting were explored. Unconventional forecasting methods comprise a broad range of assumption-free models and unconventional leading indicators. Leading indicators are often available at a higher frequency, thus adding further information to national accounts data. Predicting the development of the business cycle can be facilitated by data obtained from surveys containing qualitative questions.

*Roman Horváth*, Deputy Director of the Institute of Economic Studies (IES) at Charles University in Prague, explored the usefulness of consumer and business confidence indicators for predicting economic activity in the Czech Republic. Using a simple vector autoregression (VAR) model for the Czech Republic, he compared the forecasting performance of different models containing alternative indicators, such as consumer confidence, business confidence, the German Ifo business confidence index and a variable for credit growth. His findings showed that, although confidence indicators have a strong contemporaneous correlation with GDP growth, they do not improve forecasting performance as compared to a canonical VAR model, while including a variable for credit growth improves the forecast in a statistically significant way.

*Martin Schneider*, Expert in the OeNB's Economic Analysis Division, demonstrated the use of two alternative leading indicators which are available in real time and not subject to revisions. Instead of combining a range of indicators to produce a single indicator for economic activity as presented in Giannone's keynote address, the approach presented by Schneider consists in identifying exactly one (leading) contemporaneous indicator for one variable of interest. For example, the OeNB has used truck mileage data provided by ASFINAG, the Austrian road toll operator, to predict export growth since 2008 (as summarized in the OeNB's export indicator). The truck mileage indicator led to persistent overestimation of export growth in the 2009 recession, while a bias toward underestimation was observed in the second half of 2010. Schneider explained the forecasting bias with crisis-

related variations in the utilization per truck and outlined the relatively good forecasting performance since late 2011. Recently, another indicator has been established based on electricity consumption data provided by Austrian Power Sales. This firm-level data set includes rather accurate forecasts by individual firms regarding their future electricity use. The performance of a model based on this data for nowcasting industrial production is currently being tested, and first results are looking promising.

*Oksana Kuziakiv*, Chief Executive at the Institute for Economic Research and Policy Consulting (IER) in Kiev, gave a comprehensive overview of the business tendency survey for Ukraine, which has been conducted by IER since 1996. She explained the collection of additional qualitative statistics by the often poor quality of official statistics in Ukraine caused by long publication lags, frequent changes in underlying methodologies and the limited range of available indicators. IER collects quarterly data on managers' opinions and expectations regarding the current and future state of the economy. The enterprise survey is complemented by a bank managers' survey that has been carried out since 2007. Managers' expectations for a range of indicators over a three- and six-month horizon are summarized into an index of industrial confidence. The correlation between this index and actual production data has proven to be very high, also during the 2008 and 2009 crisis. The discussion following Kuziakiv's explanations focused on the presentation of survey results; participants stressed the importance of making raw data available to forecasters.

# World Economic Outlook April 2012: Growth Resuming, Dangers Remain

Compiled by  
Christina Lerner

Global economic prospects are gradually strengthening, but downside risks remain elevated; the risk of another crisis is still very much present and could well affect both advanced and emerging economies. This was one of the key messages of a presentation of the IMF's April 2012 World Economic Outlook at the OeNB on April 18, 2012.

Vienna had been chosen as the first venue in a series of presentations of the most recent WEO across Europe, Franz Nauschnigg, Head of the OeNB's European Affairs and International Organizations Division pointed out, after introducing the main speaker of the event, IMF senior economist John Simon, who had worked for the Reserve Bank of Australia before joining the IMF, where he is responsible for world economic studies at the Research Department.

Simon's presentation of the WEO included an overview of global as well as regional economic prospects and policies and an analysis of how to deal with household debt. It was followed by a discussion, during which journalists, economists from the OeNB and experts from various economic institutions and commercial banks raised additional topics and exchanged their views.

In his opening remarks, Peter Mooslechner, Director of the OeNB's Economic Analysis and Research Department, who chaired the event, praised the WEO's high quality of economic content and stated that the WEO, which is released on the occasion of the IMF's spring meeting, always starts a new round of discussion. Mooslechner described the current economic situation as fragile, characterized by optimism at a very low level.

John Simon started out by explaining that the major brakes on growth can be found in fiscal consolidation, bank deleveraging and household deleveraging. While household deleveraging is mainly taking place in the U.S.A., bank deleveraging and fiscal consolidation are affecting primarily Europe. Emerging economies are not immune to these developments either, but they still have enough policy room to maintain solid growth. Many of the policy debates revolve around how to best balance the adverse short-term effects of fiscal consolidation and bank deleveraging versus their favorable long-term effects.

Simon analyzed that the two main risks prevailing worldwide are the euro area crisis on the one hand and oil prices on the other. As regards the euro area, Simon stated that the linkages between sovereigns, banks and growth could represent a vicious cycle. Measures should be taken to reduce the links between sovereigns and banks. These measures, when properly introduced, could make a difference were another crisis to take place soon. As to oil prices, Simon pointed out that a disruption in global oil supply heavily affects GDP. Further uncertainty about oil supply disruptions could trigger a much larger price spike.

The IMF's suggestions as to what can be done to resolve these issues read as simple as: not too much and not too little, as well as not too fast and not too slow: Advanced economies should continue with exceptionally low monetary policy rates and unconventional support, fiscal consolidation and the reform of the financial sector. The most immediate challenge, however, is to contain spillovers from the crisis in the euro area periphery. By adopting a fiscal compact, EU Member States have shown their commitment to dealing with their deficits and debts. In addition, the ECB's three-year longer-term refinancing operations (LTROs) and the launch

of major product and labor market reforms have helped stabilize conditions in the euro area. In particular, the LTROs have taken pressure off the banks; by replacing private funding with official financing, they have averted a liquidity-driven crisis.

Simon also emphasized the need for a stronger currency union. The firewalls before the crisis were inadequate and hence needed to be strengthened. The recent decision to combine the European Stability Mechanism (ESM) and the European Financial Stability Facility (EFSF) will strengthen the European crisis mechanism and support the IMF's efforts to bolster the global firewall. The building of the European firewalls, when it is completed, will represent major progress.

Emerging markets still face overheating pressures from strong activity, high credit growth and high commodity prices. There is only limited, if any, need for monetary tightening, while fiscal policy should primarily focus on rebuilding macroeconomic policy room. It is important to further strengthen prudential policies and frameworks to address financial fragility.

As regards the issue of household debt, Simon analyzed whether and why the building of household debt represents a problem and what could be done to fix it. He stated that the Great Recession was particularly severe in economies that experienced a larger run-up in household debt prior to the crisis: the larger the rise in debt, the stronger was the fall in consumption. He then provided some historical evidence of what countries had done in the past in order to tackle the issue of household debt during crises and described different programs run in Scandinavia and in the U.S.A. The toolkit consists of a combination of monetary policy, fiscal stimulus and automatic support to households. However, due to political constraints and complex mortgage markets, it might prove very difficult to achieve comprehensive debt restructuring. The lessons learned show that macroeconomic stimulus as well as a strong financial sector help to deal with household debt.

European firewalls and bank deleveraging were the issues that dominated the questions and answers session of the event, which was well attended and gained substantial media coverage.



## Statistical Annex

# Statistical Annex

This section provides tables detailing selected economic indicators for Albania, Bosnia and Herzegovina, FYR Macedonia<sup>1</sup>, Montenegro, Serbia and Ukraine, i.e. CESEE countries not covered in the Recent Economic Developments 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

	2005	2006	2007	2008	2009	2010	2011
<i>Annual real change in %</i>							
Albania	5.7	5.4	5.9	7.5	3.3	3.6	1.9
Bosnia and Herzegovina	3.9	5.9	6.1	5.6	-2.9	0.7	2.2
FYR Macedonia	4.4	5.0	6.1	5.0	-0.9	1.8	3.2
Montenegro	4.2	8.6	10.7	6.9	-5.7	2.5	2.0
Serbia	5.6	5.2	6.9	5.5	-3.1	1.8	1.6
Ukraine	2.7	7.3	7.9	2.3	-14.8	4.1	5.2

Source: wiiw.

Table 2

### Industrial Production

	2005	2006	2007	2008	2009	2010	2011
<i>Annual real change in %</i>							
Albania	11.7	12.1	-9.7	8.7	7.2	20.0	2.0
Bosnia and Herzegovina	10.8	11.5	6.4	7.3	1.5	3.7	5.6
FYR Macedonia	7.1	3.6	3.7	5.5	-7.7	-4.3	3.3
Montenegro	-1.9	1.0	0.1	-2.0	-32.2	17.5	-10.3
Serbia	0.8	4.7	3.7	1.1	-12.1	2.9	2.1
Ukraine	3.1	6.2	7.6	-5.2	-21.9	11.2	7.3

Source: wiiw.

Table 3

### Average Gross Wages – Total Economy

	2005	2006	2007	2008	2009	2010	2011
<i>Annual change in %</i>							
Albania	5.0	9.2	25.2	25.3	5.2	6.7	6.6
Bosnia and Herzegovina <sup>1</sup>	10.8	11.5	6.4	7.3	1.5	3.7	5.6
FYR Macedonia	2.7	8.0	4.8	8.7	14.1	1.0	1.2
Montenegro	7.8	15.6	31.7	22.5	5.6	11.2	1.0
Serbia	24.1	24.4	22.0	17.9	-3.3	7.5	11.1
Ukraine	36.7	29.2	29.7	33.7	5.5	17.5	17.6

Source: wiiw.

<sup>1</sup> Net wages.

<sup>1</sup> Former Yugoslav Republic of Macedonia.

Table 4

### Unemployment Rate

	2005	2006	2007	2008	2009	2010	2011
	%						
Albania <sup>1</sup>	14.1	13.8	12.9	12.7	13.9	13.5	13.3
Bosnia and Herzegovina <sup>1</sup>	44.1	44.1	42.5	40.6	42.4	42.7	43.8
FYR Macedonia <sup>2</sup>	37.3	36.0	34.9	33.8	32.2	32.0	31.4
Montenegro <sup>2</sup>	30.3	29.6	19.3	17.2	19.3	19.6	19.7
Serbia <sup>2</sup>	20.8	20.9	18.1	13.6	16.1	19.2	22.0
Ukraine <sup>2</sup>	7.2	6.8	6.4	6.4	8.8	8.1	7.9

Source: wiiv.

<sup>1</sup> Registered, end of period.

<sup>2</sup> Labor force survey, period average.

Table 5

### Industrial Producer Price Index

	2005	2006	2007	2008	2009	2010	2011
	Period average, annual change in %						
Albania <sup>1</sup>	4.9	0.8	3.5	6.5	-1.6	0.3	2.5
Bosnia and Herzegovina <sup>2</sup>	-0.6	3.4	4.6	6.9	-3.1	0.0	4.2
FYR Macedonia	3.2	7.3	2.5	10.3	-6.5	8.5	..
Montenegro	2.1	3.6	8.5	14.0	-3.9	-0.9	3.2
Serbia	14.2	13.3	5.9	12.4	5.6	12.7	14.3
Ukraine	16.7	9.6	19.5	35.5	6.5	20.9	19.0

Source: wiiv, national sources.

<sup>1</sup> Manufacturing industry.

<sup>2</sup> Federation of Bosnia and Herzegovina.

Table 6

### Consumer Price Index

	2005	2006	2007	2008	2009	2010	2011
	Period average, annual change in %						
Albania	2.4	2.4	2.9	3.4	2.3	3.5	3.5
Bosnia and Herzegovina	3.0	6.2	1.5	7.5	-0.4	2.1	3.7
FYR Macedonia	0.5	3.2	2.3	8.3	-0.8	1.6	3.9
Montenegro	2.3	3.0	4.2	7.4	3.4	0.5	3.1
Serbia	16.2	11.7	7.0	13.5	8.6	6.8	11.0
Ukraine	13.5	9.1	12.8	25.2	15.9	9.4	8.0

Source: wiiv.

Table 7

**Trade Balance**

	2005	2006	2007	2008	2009	2010	2011
	<i>% of annual GDP</i>						
Albania	-22.5	-23.1	-26.9	-27.4	-26.4	-23.5	-24.4
Bosnia and Herzegovina	-45.0	-34.5	-37.1	-38.1	-27.7	-25.7	-27.2
FYR Macedonia	-17.8	-19.1	-19.8	-26.2	-23.3	-21.3	-23.0
Montenegro	-35.4	-45.0	-57.6	-65.6	-44.3	-40.8	-39.6
Serbia	-21.1	-21.4	-24.8	-26.0	-17.7	-17.3	-18.2
Ukraine	-1.3	-4.8	-7.4	-8.9	-3.7	-6.1	-8.4

Source: *wiiw*.

Table 8

**Current Account Balance**

	2005	2006	2007	2008	2009	2010	2011
	<i>% of annual GDP</i>						
Albania	-9.0	-6.6	-10.5	-15.6	-15.3	-11.5	-12.5
Bosnia and Herzegovina	-17.0	-7.9	-10.7	-14.0	-6.3	-5.7	-8.6
FYR Macedonia	-2.5	-0.4	-7.1	-12.8	-6.8	-2.2	-2.8
Montenegro	-16.6	-31.3	-39.5	-50.6	-29.6	-24.6	-19.2
Serbia	-8.8	-10.1	-17.7	-21.6	-7.2	-7.6	-9.8
Ukraine	2.9	-1.5	-3.7	-7.1	-1.5	-2.2	-5.5

Source: *wiiw*.

Table 9

**Net FDI Inflows**

	2005	2006	2007	2008	2009	2010	2011
	<i>% of annual GDP</i>						
Albania	3.2	3.5	5.9	6.9	7.9	8.9	7.7
Bosnia and Herzegovina	5.6	6.1	13.4	5.3	1.4	1.1	2.2
FYR Macedonia	1.6	6.6	8.5	6.1	2.0	2.3	4.1
Montenegro	22.0	21.9	21.2	18.9	35.8	17.8	11.8
Serbia	6.2	14.3	6.4	5.6	4.7	3.1	6.0
Ukraine	8.7	5.3	6.5	5.5	4.0	4.2	4.2

Source: *wiiw*.

Table 10

**Reserve Assets Excluding Gold**

	2005	2006	2007	2008	2009	2010	2011
	<i>End of period, % of annual GDP</i>						
Albania	17.9	18.5	18.1	18.3	18.4	20.8	20.2
Bosnia and Herzegovina	24.5	28.2	30.7	25.4	25.6	26.0	24.0
FYR Macedonia	21.4	25.1	23.5	20.3	21.3	21.5	24.7
Montenegro	3.4	8.0	9.7	7.0	5.8	5.3	5.3
Serbia	23.5	38.0	33.2	24.3	35.5	34.7	34.7
Ukraine	23.2	19.3	20.8	17.8	21.2	24.4	19.9

Source: *wiiw*.

Table 11

**Gross External Debt**

	2005	2006	2007	2008	2009	2010	2011
	<i>End of period, % of annual GDP</i>						
Albania	25.1	26.2	28.4	36.2	38.7	42.4	46.8
Bosnia and Herzegovina <sup>1</sup>	25.2	21.1	18.1	17.1	21.8	25.6	25.5
FYR Macedonia	52.5	47.9	47.6	49.2	56.4	59.9	65.7
Montenegro	28.3	23.5	17.2	15.6	23.5	29.4	30.3
Serbia	60.1	60.9	60.2	64.6	77.7	86.3	79.8
Ukraine	48.5	48.2	52.2	58.6	85.8	86.0	82.5

Source: wiiw.

<sup>1</sup> Gross external public debt.

Table 12

**General Government Balance**

	2005	2006	2007	2008	2009	2010	2011
	<i>% of GDP</i>						
Albania	-3.5	-3.3	-3.5	-5.5	-7.0	-3.1	-5.0
Bosnia and Herzegovina	2.4	2.8	1.2	-2.2	-4.5	-2.5	-2.5
FYR Macedonia	0.2	-0.5	0.6	-0.9	-2.7	-2.5	-2.5
Montenegro	-1.7	1.6	6.7	0.5	-2.3	-2.7	-3.0
Serbia	1.0	-1.6	-2.0	-2.6	-4.5	-4.8	-5.1
Ukraine	-1.8	-0.7	-1.1	-1.5	-4.1	-6.0	-1.8

Source: wiiw.

Table 13

**Gross General Government Debt**

	2005	2006	2007	2008	2009	2010	2011
	<i>% of annual GDP</i>						
Albania	58.1	56.0	53.9	55.2	59.7	58.2	60.0
Bosnia and Herzegovina	25.6	21.9	29.7	30.7	35.3	38.9	39.0
FYR Macedonia	46.9	38.8	32.3	27.9	31.7	35.6	35.0
Montenegro	38.6	32.6	27.5	29.0	38.2	40.9	44.0
Serbia	52.1	37.3	30.9	29.2	34.8	42.9	45.0
Ukraine	17.7	14.8	12.3	20.0	34.8	39.9	36.0

Source: wiiw.

Table 14

**Broad Money**

	2005	2006	2007	2008	2009	2010	2011
	<i>End of period, annual nominal change in %</i>						
Albania (M2)	11.7	7.4	9.6	7.4	8.7	4.5	6.6
Bosnia and Herzegovina (M2)	17.6	21.1	23.5	13.5	-1.6	7.8	5.6
FYR Macedonia	15.0	25.0	29.3	11.2	6.0	12.2	9.7
Montenegro (M21)	58.7	82.9	71.9	-14.3	..	..	..
Serbia (M3)	39.1	38.3	42.5	9.8	21.5	12.9	10.3
Ukraine	54.4	34.5	51.7	30.2	-5.5	22.7	14.7

Source: European Commission, wiw.

Table 15

**Official Key Interest Rate**

	2005	2006	2007	2008	2009	2010	2011
	<i>End of period, %</i>						
Albania (refinancing base rate)	5.0	5.5	6.3	6.3	5.3	5.0	4.8
Bosnia and Herzegovina <sup>1</sup>	x	x	x	x	x	x	x
FYR Macedonia <sup>2</sup>	8.5	5.7	4.8	7.0	8.5	4.1	4.0
Montenegro <sup>3</sup>	x	x	x	x	x	x	x
Serbia (two-week repo rate) <sup>4</sup>	19.2	14.0	10.0	17.8	9.5	11.5	9.8
Ukraine (refinancing rate) <sup>5</sup>	9.5	8.5	8.0	12.0	10.3	7.8	7.8

Source: Eurostat, Bloomberg, wiw, IMF.

<sup>1</sup> Currency board.<sup>2</sup> Monthly weighted average interest rate on Central Bank Bills auctions (28 days).<sup>3</sup> Unilateral euroization.<sup>4</sup> 2002–05: Weighted average interest rates on securities used in open market operations by Narodna banka Srbije.<sup>5</sup> Average.

Table 16

**Exchange Rate**

	2005	2006	2007	2008	2009	2010	2011
	<i>Period average, national currency per EUR</i>						
Albania	124.19	123.08	123.63	122.80	132.06	137.79	140.33
Bosnia and Herzegovina	1.96	1.96	1.96	1.96	1.96	1.96	1.96
FYR Macedonia	61.30	61.19	61.18	61.27	61.27	61.52	61.53
Montenegro	x	x	x	x	x	x	x
Serbia	82.91	84.19	79.98	81.47	93.94	102.90	102.93
Ukraine	6.39	6.34	6.92	7.71	10.87	10.53	11.09

Source: wiw, national sources, Thomson Reuters.

Notes

# Periodical Publications

See [www.oenb.at](http://www.oenb.at) for further details.

## **Geschäftsbericht (Nachhaltigkeitsbericht) Annual Report (Sustainability Report)**

German  
English

This report reviews the OeNB's mandate, responsibilities and organization as well as the monetary policy of the Eurosystem, economic conditions and developments both in the financial markets and in financial market supervision during the reporting year. Furthermore, it contains the OeNB's financial statements, Intellectual Capital Report and Environmental Statement.

## **Geldpolitik & Wirtschaft Monetary Policy & the Economy**

German  
English

Monetary Policy & the Economy provides analyses and studies on central banking and economic policy topics and is published at quarterly intervals.

## **Finanzmarktstabilitätsbericht Financial Stability Report**

German  
English

This semiannual report contains analyses of Austrian and international developments with an impact on financial stability and studies designed to offer in-depth insights into specific financial stability-related topics.

## **Focus on European Economic Integration**

English

This quarterly publication presents peer-reviewed studies on macrofinancial and monetary integration in Central, Eastern and Southeastern Europe (CESEE) as well as related country analyses and statistics. This publication reflects a strategic research priority of the OeNB.

## **Statistiken – Daten & Analysen**

German, English summaries

This quarterly publication contains analyses of Austrian financial institutions, cross-border transactions and positions as well as financial flows. Some 200 tables provide information about macroeconomic, financial and monetary indicators. On the OeNB's website, these tables are also available in English. In addition, this series includes special issues on selected statistics topics published at irregular intervals.

## **Research Update**

English

This quarterly newsletter is published online ([www.oenb.at/research-update](http://www.oenb.at/research-update)) and informs readers about selected findings, research topics and activities of the OeNB's Economic Analysis and Research Department.

## **Proceedings of OeNB Workshops**

German, English

These proceedings contain papers presented at OeNB workshops at which national and international experts discuss monetary and economic policy issues.

## **Working Papers**

English

This online series provides a platform for the publication of studies by OeNB economists or external authors on particular monetary policy topics.

## **Conference Proceedings of the OeNB's Economics Conference**

English

These proceedings contain contributions to the OeNB's annual Economics Conference, an international platform for exchanging views and information on monetary and economic policy as well as financial market issues.

## **Conference Proceedings of the OeNB's Conference on European Economic Integration**

English

These proceedings contain contributions to the OeNB's annual Conference on European Economic Integration (CEEI), which focuses on Central, Eastern and Southeastern European issues and the ongoing EU enlargement process.

## **Publications on Banking Supervision**

German, English

[www.oenb.at/en/presse\\_pub/period\\_pub/finanzmarkt/barev/barev.jsp](http://www.oenb.at/en/presse_pub/period_pub/finanzmarkt/barev/barev.jsp)

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