

FOCUS ON EUROPEAN ECONOMIC INTEGRATION



Stability and Security.

Q2/11

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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Contents

Olga Radzyner Award 2011 – Call for Entries	4
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Recent Economic Developments

Developments in Selected CESEE Countries:	
Gradual Recovery amid Rising Inflation and Some Fiscal Consolidation	6
<i>Compiled by Josef Schreiner</i>	
Box 1: Ukrainian Economy Recovers from Deep Recession	12
Box 2: Western Balkans: Recovery Underway but Vulnerabilities Remain	14
Box 3: OeNB-BOFIT Outlook for Selected CESEE Countries: Domestic Demand Strengthens and External Demand Moderates	36
Box 4: OeNB Euro Survey: Expectations of CESEE Households Remain Pessimistic despite Rebound in Real GDP Growth in 2010	39

Studies

The Economic Transmission of Fiscal Policy Shocks from Western to Eastern Europe <i>Jesús Crespo Cuaresma, Markus Eller, Aaron Mehrotra</i>	44
CESEE-Related Abstracts from Other OeNB Publications	69

Event Wrap-Ups

68 th East Jour Fixe – Limited Fiscal Space in CESEE: Needs and Options for Post-Crisis Reform <i>Compiled by Markus Eller</i>	72
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Presentation at the OeNB by Éva Katalin Polgár (ECB): Are Policy Measures Effective in Controlling Credit Growth in Emerging Europe? <i>Compiled by Katharina Steiner</i>	78
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Statistical Annex

<i>Compiled by Angelika Knollmayer</i>	80
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Notes

Periodical Publications of the Oesterreichische Nationalbank	86
Addresses of the Oesterreichische Nationalbank	88

*Opinions expressed by the authors of studies do not necessarily reflect
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Call for Entries

Olga Radzyner Award 2011 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 2011, four applicants are eligible to receive a single payment of EUR 3,000 each from an annual total of EUR 12,000.

Submitted papers should cover European economic integration issues and be in English or German. They should not exceed 30 pages and should preferably be in the form of a working paper or scientific article. Authors shall submit their work before their 35th birthday and shall be citizens of any of the following countries: Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, FYR Macedonia, Hungary, Kosovo, Latvia, Lithuania, Moldova, Montenegro, Poland, Romania, Russia, Serbia, Slovakia, Slovenia and 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 by postal mail – with the envelope marked “Olga Radzyner Award” – to the Oesterreichische Nationalbank, Foreign Research Division, Otto-Wagner-Platz 3, PO Box 61, 1011 Vienna, Austria. Entries for the 2011 award should arrive at the OeNB by October 10, 2011, at the latest.

For more information, please see www.oenb.at or contact Ms. Eva Gehringer-Wasserbauer in the OeNB's Foreign Research Division either by e-mail (eva.gehringer-wasserbauer@oenb.at) or by phone (+43-1-40420-5205).

Recent Economic Developments

Developments in Selected CESEE Countries:

Gradual Recovery amid Rising Inflation and Some Fiscal Consolidation^{1,2,3}

Bumpy road toward economic normality

1 Introduction

By and large, the countries of Central, Eastern and Southeastern Europe (CESEE) have overcome the recession and the elevated volatility that had characterized the immediate post-crisis environment, but they have not yet returned to a stable growth path. There are several pieces of evidence that underpin this overall assessment: On the positive side, average growth in the region turned out fairly high both in the third and fourth quarters of 2010. Furthermore, domestic demand has re-emerged as an important growth driver. Thus, growth has become more broad based, and the composition of growth now more closely resembles the one seen before the boom years of 2005 to 2008 and the ensuing financial crisis. External accounts also reflect this development. The crisis-induced adjustment process is gradually coming to an end in most countries, and the current account positions have broadly stabilized on rather favorable levels. Improving economic dynamics are beginning to weigh on trade balances in some countries, though. At the same time, inflation has re-emerged as a policy issue. In the past months, price pressures driven by global food and energy price developments as well as by indirect tax hikes in the context of fiscal consolidation have reached a level that prompted some central banks in the region to tighten monetary policy. This exit from accommodating monetary policies is an indication that these countries are considered to be healthy enough to cope with a normalization of the policy stance and, consequently, that a more far-reaching economic stabilization has been achieved.

However, the way back to fully fledged economic normality is still bumpy and may turn out to be longer than expected for some countries. First of all, there is still a high degree of heterogeneity in the region, with e.g. the 2010 growth performances ranging all the way from boom to recession. This is essentially related to the different structural features and shortcomings of the countries that the crisis has vigorously exposed. Second, public finances are in significant deficit in a number of countries, and fiscal consolidation represents a major policy challenge. Third, economic policymaking has been complicated by still elevated uncertainty about developments in Western Europe (as regards growth prospects, sovereign debt problems in some countries and banking sector developments), which are of key importance to the economic dynamics in the CESEE region. Finally, the issue of devising a sustainable future growth model that avoids the exuberance of the past boom years and the build-up of imbalances in the special context of a highly integrated economic space such as Europe still has not been resolved. This process currently even seems to be complicated somewhat by the fact that the two backbones of economic growth in the past decade – credit expansion and capital

¹ Compiled by Josef Schreiner with input from Stephan Barisitz, Jarko Fidrmuc, Sándor Gardó, Mariya Hake, Antje Hildebrandt, Matthias Lahnsteiner, Thomas Reiningr, Katharina Steiner, Zoltan Walko and Julia Wörz.

² Cut-off date: April 1, 2011 (April 26, 2011, for fiscal data). This report primarily focuses on data releases and developments from October 2010 up to the cut-off date, while selectively recalling earlier developments where this appears necessary to put recent developments into perspective.

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

flows to the region – are still subdued in most CESEE countries. Furthermore, their outlook is surrounded by substantial uncertainty. While this may impede the upturn of economic activity in the short term, its medium-run impact is less clear-cut. After all, strong capital inflows and associated booming credit growth in the years immediately before the crisis fuelled macrofinancial vulnerabilities in the region and implied more arduous adjustment needs when the crisis hit.

Given a temporary dip in Turkey and subdued economic dynamics in Russia, which are related to adverse weather conditions last summer, average growth in the CESEE region moderated somewhat in the third quarter of 2010 (see table 1). However, in the final quarter of 2010 it returned to 4.7%, broadly in line with readings in the first half of 2010 and considerably above euro area levels (2%). However, at the country level a sizeable degree of diversity has prevailed: On the one hand, the dynamics were characterized by positive and stable or even increasing seasonally-adjusted quarterly growth rates in most countries of Central Europe and – despite the drought – also in Russia; on the other hand, Hungary, Romania and Croatia have not yet completely overcome the economic slump, as quarterly growth there mainly was around zero and characterized by elevated volatility, with positive and negative readings alternating. On the other end of the spectrum is Turkey, posting very high growth rates, which, together with other indicators (in particular buoyant credit growth and a rising current account deficit), may indicate an incipient overheating of the economy while other indicators like inflation developments and capacity utilization seem to provide some comfort in this respect, at least for the time being. More generally, a certain trend toward somewhat more synchronized business cycles can be observed for the region as a whole, as growth has been picking up in several Central European countries.

As for the composition of growth, the external sector as well as stock changes continued contributing substantially to the economic dynamics throughout most of the region in the second half of 2010. At the same time domestic demand

Generally robust
GDP dynamics amid
still elevated
heterogeneity

Domestic demand
gains importance as
a growth driver

Table 1

Real Gross Domestic Product

	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Annual change in % (not seasonally adjusted)								
Slovakia	-4.8	4.0	-5.0	-3.6	4.7	4.2	3.8	3.5
Slovenia	-8.1	1.2	-8.8	-5.7	-1.2	2.1	1.7	2.1
Bulgaria	-5.5	0.2	-5.0	-7.6	-4.8	1.0	0.3	3.1
Czech Republic	-4.1	2.3	-5.0	-2.9	1.0	2.9	2.4	2.9
Hungary	-6.7	1.2	-7.5	-4.3	0.1	1.0	1.7	1.9
Poland	1.7	3.8	1.2	3.5	2.7	3.7	4.8	4.1
Romania	-7.1	-1.3	-7.1	-6.5	-2.2	-0.4	-2.2	-0.6
Croatia	-6.0	-1.2	-5.7	-4.6	-2.3	-2.3	0.3	-0.6
Turkey	-4.8	8.9	-2.8	5.9	12.0	10.3	5.2	9.2
Russia	-7.8	4.0	-8.6	-2.6	3.5	5.0	3.1	4.5
CESEE average ¹	-5.4	4.2	-5.6	-0.6	4.1	5.0	3.3	4.7
Euro area	-4.1	1.8	-3.9	-1.7	0.9	2.3	1.9	2.0

Source: Eurostat, national statistical offices.

¹ Average weighted with GDP at PPP.

Average growth in the region set to remain at the 2010 level in the coming years

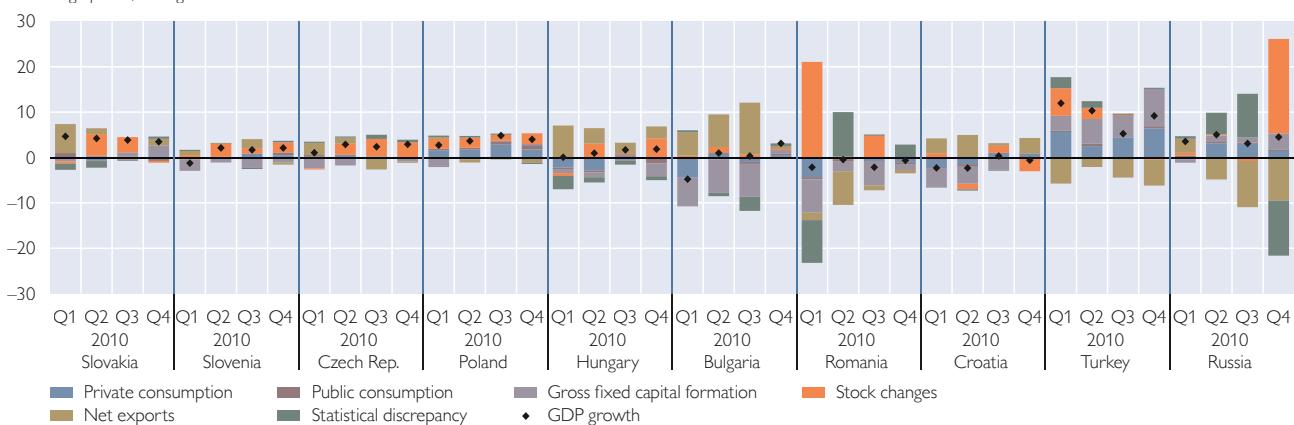
re-emerged or strengthened as a growth driver. This was particularly the case in Slovakia, Poland, Turkey and Russia, i.e. in those countries that overcame the recession comparatively quickly (or did not slip into recession in the first place, e.g. Poland) and are currently outperforming the other countries of the region in terms of growth dynamics. The pick-up in domestic demand, however, also encompasses several other countries (most notably Bulgaria) and is most visible in gross fixed capital formation and private consumption, while public consumption has been playing a minor role. Investment reacted to increases in capacity utilization, which in turn were due to strong export dynamics in most countries. Private consumption was positively influenced by a stabilization of labor market conditions and brightening sentiment as exemplified by, e.g., the Economic Sentiment Indicator of the European Commission. The indicator recently surpassed the threshold of 100 in most countries, which means that sentiment has again moved up (slightly) beyond its long-run averages.⁴ At the same time, the growth dynamics in a number of countries could not recover faster because of the ongoing adjustment of household balance sheets, subdued wage growth, low credit dynamics, fiscal consolidation measures as well as flagging output in construction, a sector which is still adjusting after its strong boom until 2008.

With an average expansion of 4% in 2010, the region has arrived on its medium-term growth path: The latest forecasts⁵ project a growth rate of around this level until 2013. The regional composition, however, will alter to some extent. In 2011, the dynamics are set to pick up more strongly in the countries that closed 2010 with weak or even negative growth readings (Bulgaria, Hungary, Romania, Croatia) while they will remain virtually unchanged or even decrease in most of

Chart 1

GDP Developments

Percentage points, GDP growth in %



Source: Eurostat, national statistical offices.

⁴ Data are available only for the EU Member States in the country sample, but sentiment appears to be fairly positive also in Russia and Turkey.

⁵ wiiw Current Analyses and Forecasts (February 2011) and IMF WEO (April 2011). For the detailed OeNB-BOFIT forecast for CESEE, see Box 3.

the rest of the region. The latter is especially true in the case of Turkey, which will return to a more moderate growth path. In view of these developments, economic activity will continue becoming somewhat more synchronized across the region. For 2012 and 2013 some further acceleration of growth is projected for the EU Member States in the sample as well as for Croatia. Growth in Turkey and Russia, by contrast, will remain broadly unchanged.

The external adjustments during the crisis, which were significant in most CESEE countries, are currently coming to an end as current account positions are broadly stabilizing in the region. This development is mainly related to the pick-up in domestic demand and its impact on trade balances. Consequently, some improvement in external positions can still be observed in the economically weaker countries of the region (above all Bulgaria, but also in Romania, Croatia and Hungary). But even here this development will presumably come to an end in the near future once domestic demand starts to pick up in these countries as well. A notable worsening of the current account position has been seen in Turkey, where domestic demand has boomed for some time, and in the Czech Republic, mainly due to a reduction in the trade surplus but also due to increases in corporate profit transfers by foreign owners. Russia's current account continues benefiting from oil price developments.

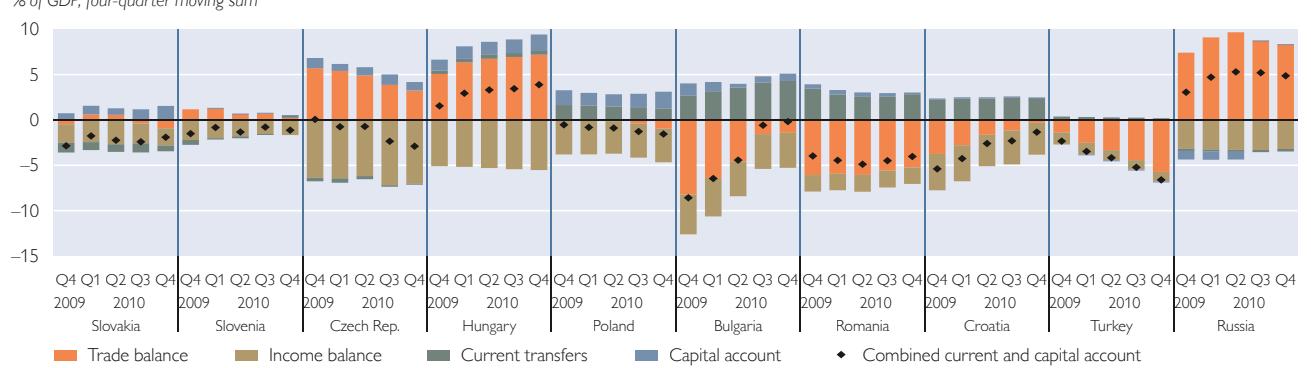
A look at saving/investment balances also points in this direction. The reduction in current account deficits was driven mainly by a decline in investment, with some additional help by a rising saving rate only in Bulgaria, Hungary and Romania. However, after many quarters of low or very low investment activity, capital formation is set to increase again more strongly in the near future given slowly rising capacity utilization rates, the availability of EU funds and the sheer necessity of reinvestment to compensate for depreciations in the capital stock. Saving rate developments might have a mitigating effect in some countries, e.g. in Slovenia and the Czech Republic, where the rates currently stand below their long-term averages. The scope for a more pronounced rise in saving rates remains uncertain, however. In several CESEE countries households are still in a process of balance sheet repair, wage growth is mostly modest, and fiscal consolidation efforts in many countries will

Improvement of external accounts peters out as domestic demand picks up

Chart 2

Combined Current and Capital Account Balance

% of GDP, four-quarter moving sum



Source: Eurostat, IMF, national central banks.

raise the public sector saving rate but also weigh on the disposable income of households and on corporate profitability, thereby reducing the private sector saving rate.

The gains in international price competitiveness that have been observed since 2009 continued in most countries throughout the review period. Unit labor costs (ULC) in industry measured in euro decreased more strongly in most Central European countries, in Romania and Croatia than in the euro area. In the Czech Republic ULC dynamics were broadly in line with those of the euro area while Poland lost some of its price competitiveness (in part due to exchange rate appreciations). In Bulgaria, ULC were flat in the final quarter of 2010 and only moderately above euro area averages. ULC have increased strongly (in local currency and even more so in euro) only in Turkey and Russia, which led to a deterioration in these countries' international price competitiveness.

Current forecasts project some deterioration in the current account positions for most countries of the region in 2011, a trend that will continue in the medium term. By 2013 the average current account deficit in the EU Member States among the countries under observation are expected to reach some 4% of GDP (with a notably smaller gap only in Slovenia). Somewhat higher figures are expected for Turkey and Croatia (5% to 5.5% of GDP) while oil and gas price developments will presumably prevent Russia's external position from slipping into the red. In spite of this, deficits will remain well below the levels reached in the boom years prior to the crisis and mostly within the range of existing estimates of equilibrium current account positions for CESEE countries.

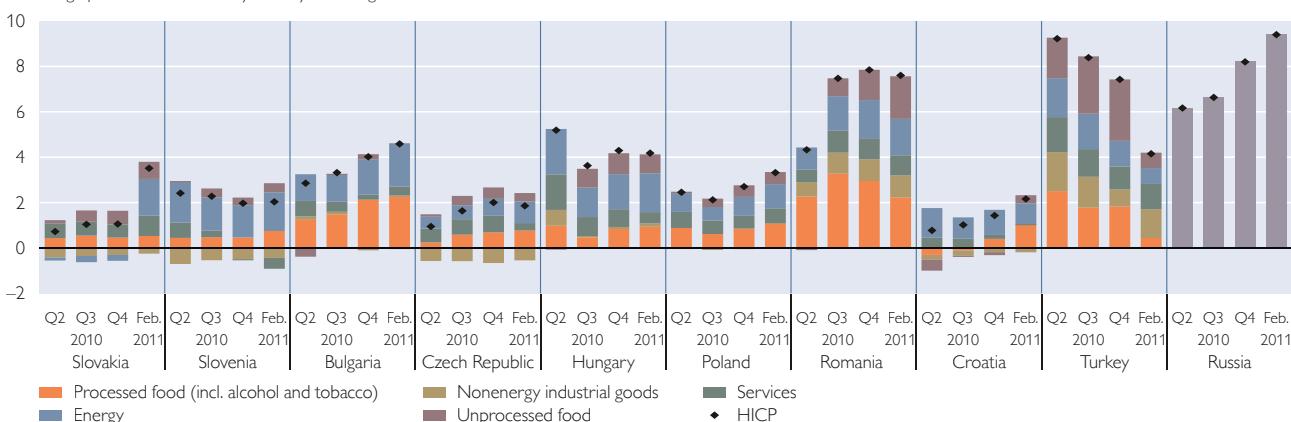
Monetary tightening starts in some countries as inflation rates rise

With the major exception of Turkey, inflation rates increased throughout the CESEE region in the past months. This development can be traced back mainly to two factors: First, and in line with global trends, inflation was pushed up by soaring food and energy prices. The world market prices for these two groups of goods increased by more than 50% and by more than 70% year on year respectively in the review period given increasing demand as well as adverse weather conditions in important food supplying countries and the political turmoil in North Africa.

Chart 3

HICP Inflation and Its Main Drivers

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



Source: Eurostat.

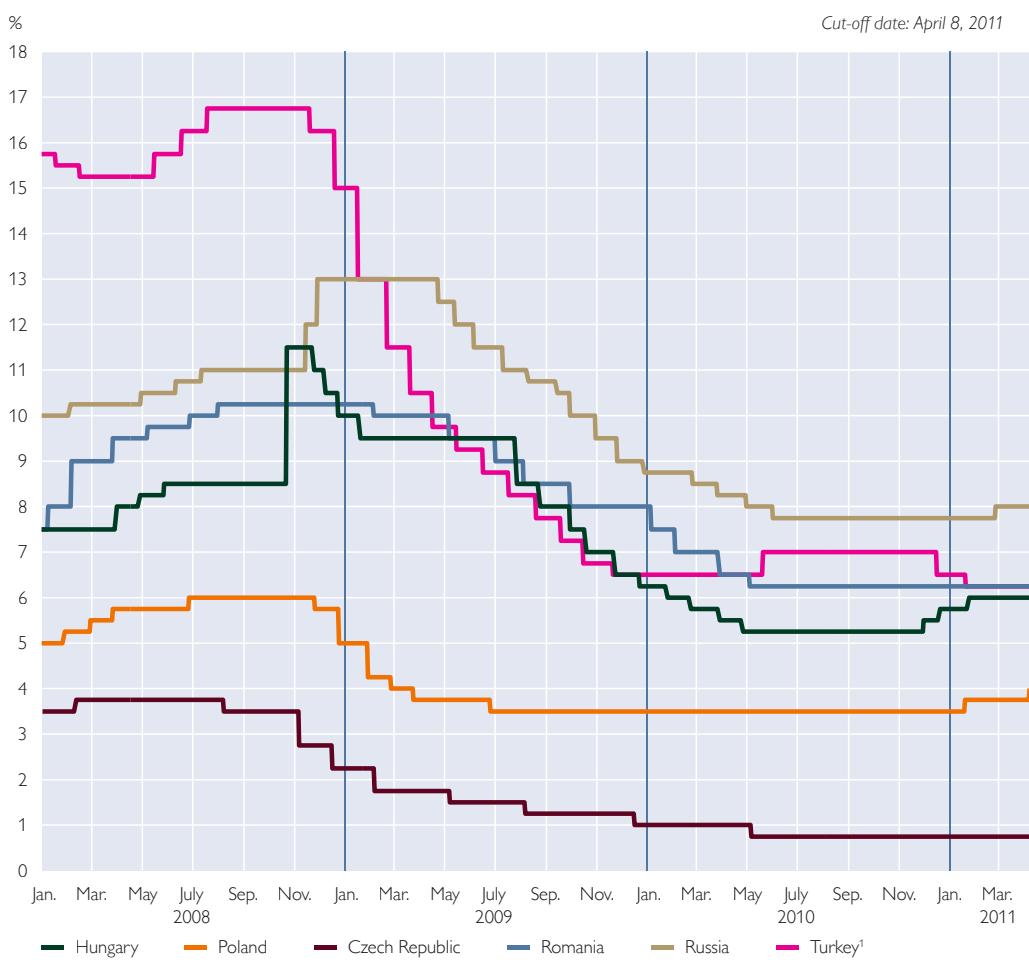
Note: CPI for Russia. No breakdown according to COICOP available.

Second, fiscal consolidation has involved increases in indirect taxes in a number of countries. Besides hikes in excise taxes for various product groups, the main drivers were increases in value added tax (VAT) rates. (The main) VAT rates were raised from 20% to 25% in Hungary (in July 2009), from 19% to 24% in Romania (in July 2010), from 19% to 20% in the Czech Republic (in January 2010), from 22% to 23% in Poland (in January 2011) and from 19% to 20% in Slovakia (in January 2011). This contributed to the doubling of inflation in Romania and (from much lower levels) in Slovakia, while lower inflation readings in the Czech Republic and in Hungary in recent months are to a substantial extent attributable to base effects after earlier VAT increases.

Although core inflation remains well below headline inflation in all countries, several central banks in the region increased their policy rates in response to growing price pressures, thereby initiating a reversal from the accommodative stance adopted during the crisis. Narodowy Bank Polski (NBP) raised its key policy rate in two steps (in January and April) by 25 basis points each to 4%, while Magyar

Chart 4

Policy Rate Developments



Source: National central banks.

¹ In May 2010 the Central Bank of Turkey replaced the borrowing rate by the one-week repo rate as the policy rate.

Nemzeti Bank (MNB) increased its key interest rate in three steps (November and December 2010 and January 2011) by 25 basis points each to 6%. In both countries, the interest rate hikes aimed at bringing above-target inflation back to the target over the medium term and anchoring inflation expectations at levels that are in line with these targets.

In February 2011 the Central Bank of Russia (CBR) raised interest rates (including the refinancing rate) by 25 basis points to 8%. At the same time, it widened the trading band of the Russian ruble around its central rate against a currency basket containing the U.S. dollar and the euro. Besides that, the CBR increased its minimum reserve requirements three times between January and March.

The Turkish central bank (TCMB), by contrast, lowered its key interest rate by 25 basis points to 6.25% in January 2011 despite the economic boom, following a reduction by 50 basis points in December 2010. Furthermore, it increased several minimum reserve requirements. The TCMB argued that this constituted an optimal policy mix under the current conditions to preserve both financial and price stability.

Given the interest rate hike of the ECB in April, a tightening cycle was also initiated in the euro area members in the sample (Slovenia, Slovakia) as well as in Bulgaria, a country that operates a currency board regime.

Current forecasts project annual inflation rates for 2011 mostly above the values recorded in February, which indicates that price pressures will increase further in the coming months. Inflation, however, is projected to drop in most countries in 2012, although the timing and extent of this decline are uncertain and will depend on the evolution of global commodity prices, potential policy-induced price increases (such as higher indirect taxes), the development of inflation expectations and monetary policy responses to price dynamics. Moreover, the outlook for inflation also hinges on the degree of spare capacity in the economies in question and the sensitivity of prices and wages to this spare capacity. Currently, inflation is expected to come in at around 3% in the CESEE EU Member States and Croatia, at around 6% in Turkey and at around 8% in Russia in 2012, after around 4% in the EU Member States and Croatia, 6% in Turkey and 9% in Russia in 2011.

Box 1

Ukrainian Economy Recovers from Deep Recession¹

After having experienced one of the deepest recessions in the CESEE region in 2009, the Ukrainian economy recovered in 2010. However, real GDP is still considerably below pre-crisis levels in absolute terms. GDP growth of 4.2% in 2010 was mainly driven by private consumption, while the contribution of net exports turned negative. Despite the resumption of growth, the current account deficit widened only moderately from 1.5% of GDP in 2009 to 1.9% in 2010, as the country benefited from rising world market prices for metals, its main export good. The output gap is still negative, and this has brought inflation down to single-digit levels, notwithstanding a temporary rise due to higher food prices and hikes in gas tariffs and excise taxes in the fall of 2010.

¹ For detailed data on Ukraine, please see the Statistical Annex section in this publication.

In July 2010, the IMF approved the second Stand-By Arrangement (SBA) for Ukraine since the onset of the financial crisis, after the first one had gone off track in early 2010. The broadly favorable development of the real economy, the IMF support package as well as rating upgrades helped the government access the eurobond market in September 2010 for the first time since late 2007. Currently, the completion of the second review under the SBA is being delayed as several reform measures envisaged under the program have not yet been taken. Discussions on the implementation of these measures between the IMF and Ukraine are continuing.

Government accounts in CESEE countries deteriorated substantially during the financial crisis. One reason for this was the operation of automatic stabilizers, which, however, was less pronounced than in Western Europe; yet the sheer fall in the growth rate during the crisis implied a substantial effect on fiscal accounts. A few countries also implemented (discretionary) fiscal stimulus packages. This, however, constituted an important factor only in Russia (and, to a far lesser extent, in Poland). Some structural features of CESEE public accounts also explain a substantial part of the deterioration: Driven by the demand boom in the pre-crisis years, indirect taxes became an ever more important element of CESEE fiscal policy. Once the crisis hit the region, this strong reliance resulted in a significant erosion of revenues. This led to a steep rise in government deficits in 2009.⁶

Some countries of the CESEE region had to embark on a fiscal consolidation course during the crisis to keep up investor confidence and ensure solvency, in some cases in conjunction with IMF/EU support packages. Now that the economic outlook has been improving in the region, the remaining countries have also embarked on fiscal consolidation in order to safeguard the sustainability of their public finances and, in the case of the EU countries, to meet commitments made within the framework of the excessive deficit procedure (EDP), which all EU Member States of the country group under review here are currently subject to. Within the EDP, benchmarks for reducing budgetary gaps have been agreed upon, with the deadlines for the correction of the excessive deficits being 2011 (Hungary and Bulgaria), 2012 (Poland and Romania) and 2013 (Czech Republic, Slovakia and Slovenia). According to a Communication by the European Commission from January, most countries are on a good path to reduce their deficits in line with the Council's recommendations; for this reason EDPs are currently held in abeyance for all countries but Bulgaria. Even for this country, however, the Commission acknowledged that effective action to put an end to the present situation of excessive deficit by 2011 had been taken.

In 2010, budget deficits decreased somewhat in most countries. This is especially true for Romania (under the IMF/EU adjustment program) as well as for Russia and Turkey, where strong growth boosted revenues (with the rising oil price being a further factor in Russia). The latter two countries were also those mainly responsible for the decrease in the average deficit in the region from 6.3% of GDP to 4.4% of GDP in 2010.

The government deficits in CESEE are projected to decrease across the board from 2011 on (with the exception of Croatia, where this process is to set in as late as

Governments
embark on a fiscal
consolidation path

⁶ For further information, please see the section Event Wrap-Ups in this publication.

2012). This trend is expected to persist also in 2013. By this date, all states should have brought down their deficits substantially. However, shortfalls in public budgets will remain elevated at above 3% of GDP in half of the countries under review.

Finally, a comprehensive assessment of fiscal policy developments (at least for the EU Member States of the sample) is difficult at this point as this year's stability and convergence programs are not yet available. The reason for this is the introduction of the European Semester, a six-month period every year during which the Member States' budgetary and structural policies will be reviewed to detect any inconsistencies and emerging imbalances while major budgetary decisions are still under preparation. Within this framework the stability and convergence programs are due at the end of April before they are being evaluated by the European Commission in May, to be followed by a final assessment by the Ecofin and the European Council on June 20 and June 24, 2011, respectively.

Box 2

Western Balkans: Recovery Underway but Vulnerabilities Remain¹

After taking a strong hit in 2009, economic activity recovered somewhat in the Western Balkans² in 2010, with GDP growth being predominantly driven by net exports. Economic growth ranged from 0.5% in Montenegro to about 4% in Kosovo and Albania; the latter two suffered less under the crisis given their lower degree of economic and financial integration with the rest of the world. Economic growth is expected to accelerate further and to become more broad based in 2011.

Given strong export growth and an only moderate recovery in domestic demand, the process of current account adjustment continued in all countries in 2010. Nonetheless, Albania, Kosovo and Montenegro still recorded relatively high current account deficits last year. In this context, in most Western Balkan countries low export bases and rather unfavorable export structures seem to represent an obstacle for achieving more sustainable external positions.

Except for Albania and FYR Macedonia, FDI inflows dropped markedly in all countries in 2010. Consequently, external indebtedness increased further throughout the region, predominantly driven by public sector debt. International financial assistance helped stabilize capital flows to the region. The SBA's for Serbia and Bosnia and Herzegovina remained well on track, and in July 2010 Kosovo too signed an SBA with the IMF (EUR 110 million). FYR Macedonia turned to the IMF for a precautionary credit line in January 2011 (EUR 390 million), from which it decided to draw EUR 220 million in March. Montenegro successfully tapped international markets with two eurobond issues in September 2010 and April 2011.

After a rather benign inflationary environment up until mid-2010, inflation started to re-emerge as a policy issue in most countries of the region given higher food and energy prices, regulated price hikes and exchange rate pass-through effects (in Albania and Serbia), with upward inflationary pressures further accelerating in the first quarter of 2011. Serbia and more recently also Albania responded by tightening monetary policy.

Available fiscal data suggest that public finances have improved or stabilized in 2010, in some countries not least thanks to the conditionality of international financial assistance. All countries have announced to move on with fiscal consolidation in the years ahead; however, given upcoming local, parliamentary or presidential elections in most countries of the region in 2011 or 2012, a risk of fiscal slippage remains.

¹ For detailed data on Ukraine, please see the Statistical Annex section in this publication.

² The Western Balkans comprise the EU candidate countries FYR Macedonia and Montenegro, as well as the potential candidate countries Albania, Bosnia and Herzegovina, Kosovo and Serbia. Developments in Croatia are not covered here but in the country chapter.

2 Slovakia: Growing Economy, Fiscal Restraint and Falling Unit Labor Costs

Output growth fuelled by external demand and investment

After output declined in 2009, GDP growth in Slovakia was among the highest in Central Europe in 2010. The vivid expansion was driven by both external and domestic demand: Exports expanded by more than 16%. However, import growth was also strong. While exports lost some momentum during the year, imports accelerated, which caused a moderate slowdown of the dynamics in the second half of the year. Domestic demand was fuelled in particular by stock changes. Moreover, gross fixed capital formation growth came to 3.6% in 2010, which reflects new FDI in the electronics industry, and was especially impressive in the last quarter, when it reached double digits in year-on-year terms. Private consumption declined by 0.3% in 2010, but the last quarters already showed signs of some revival. Thus, the outlook for the economy is overall positive, as growth is likely to spread to private consumption, while investment and possibly also net exports should also remain growth drivers.

Trade deficit in the second half of 2010 and net FDI outflows in the third quarter

Although the annual trade balance remained slightly positive in 2010, quarterly data reveal that there has been no surplus since the third quarter of 2010. While increasing demand from the EU trading partner countries supported Slovakian exports, strengthened domestic investment and slowly reviving private consumption contributed to the rise in imports, particularly imports of parts and accessories of motor vehicles. The current account remained in deficit. FDI turned negative in the third quarter owing to an outflow of FDI caused by a reduction in intercompany loans, but was marginally positive in the year as a whole.

Unemployment at high level as productivity rises and unit labor costs fall

While GDP growth was solid in 2010, unemployment rose further to more than 14% (annual average) in 2010. Employment has come down by more than 3% since 2008, with major job losses in industry, and remained subdued over 2010. A slight increase in labor market participation in the first half of 2010 faded out later in the year. Supported by strong productivity gains, which also reflected a recovery from the productivity declines in 2009, unit labor costs dropped by more than 15% in 2010 compared to 2009. While the decline moderated somewhat during the year, it was still close to 10% in the last two quarters. Besides declining growth in labor productivity, growth in nominal wages also slowed down in the last two quarters of 2010.

Inflation accelerates after energy price shocks

Annual average HICP inflation in 2010 remained low (0.7%) but increased noticeably in the latter part of the year and early 2011 (+3.5% in February 2011). This was especially due to rising energy prices. Moreover, the VAT increase (see below) also contributed to this development, although core inflation remained fairly low at 1.7% (February 2011). Finally, producer prices jumped by about 5% in January and February, after increasing moderately in 2010 (0.1%).

Consolidation of public finances

2011 is set to be characterized by the consolidation of public finances, which started already after the elections in summer 2010. The new parliament adopted an austerity package including expenditure cuts, a temporary increase of VAT from 19% to 20%, a reduction of income tax exemptions, and increases of consumption taxes so as to rein in the widening of the deficit, which amounted to 7.9% of GDP at end-2010. In 2012, a bank tax, higher consumption taxes on wine and beer, and higher gambling taxation will be implemented. The Ministry of Finance targets a general budget deficit of 4.9% of GDP in 2011 and aims at a reduction to 3.8% of GDP in 2012.

Table 2

Main Economic Indicators: Slovakia

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	5.8	-4.8	4.0	-5.0	-3.6	4.7	4.2	3.8	3.5
Private consumption	6.2	0.3	-0.3	1.3	-2.6	-0.1	-1.3	-0.2	0.5
Public consumption	6.1	5.6	0.1	2.5	6.4	5.9	-1.1	0.9	-3.3
Gross fixed capital formation	1.0	-19.9	3.6	-24.7	-16.9	-3.4	1.8	4.8	10.6
Exports of goods and services	3.1	-15.9	16.4	-14.9	-3.7	18.3	16.1	17.3	14.3
Imports of goods and services	3.1	-18.6	14.9	-17.0	-9.5	10.9	16.0	19.2	13.5
Contribution to GDP growth in percentage points									
Domestic demand	5.6	-7.7	2.5	-7.1	-9.1	-0.4	4.2	4.3	1.6
Net exports of goods and services	0.1	2.0	2.1	1.1	5.4	6.4	1.3	-0.3	1.4
Exports of goods and services	3.1	-15.3	13.9	-13.3	-3.3	15.3	13.6	13.8	13.0
Imports of goods and services	3.0	-17.3	11.8	-14.4	-8.7	8.9	12.3	14.2	11.5
Year-on-year change of the period average in %									
Labor productivity in industry (real)	2.7	2.5	22.8	7.2	22.9	36.0	29.9	15.5	13.7
Average gross earnings in industry (nominal)	7.6	2.7	5.1	1.6	4.7	5.8	6.1	4.9	3.8
Unit labor costs in industry (nominal)	5.5	0.7	-15.2	-4.9	-16.1	-22.7	-18.4	-9.4	-9.0
Producer price index (PPI) in industry	2.5	-6.6	0.1	-8.1	-5.8	-3.4	0.1	1.9	1.8
Consumer price index (here: HICP)	3.9	0.9	0.7	0.4	-0.0	-0.0	0.7	1.0	1.1
EUR per 1 SKK, + = SKK appreciation	8.0	3.8	3.8	..	..	..	..	..	..
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	9.6	12.1	14.4	12.6	13.9	15.2	14.4	14.2	13.9
Employment rate (%), 15–64 years)	62.3	60.2	58.8	60.1	59.2	58.0	58.6	59.2	59.3
Key interest rate per annum (%)	4.0	..	..	..	..	..	..	..	..
SKK per 1 EUR	31.3	..	..	..	..	..	..	..	..
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	4.8	3.2	4.4	3.0	3.2	-1.2	1.8	3.5	4.4
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	-8.0	-1.4	1.2	-1.8	-1.4	3.3	3.2	-1.6	1.2
Domestic credit of the banking system	12.5	23.0	9.3	26.2	23.0	9.4	9.9	12.0	9.3
of which: claims on the private sector	11.2	6.0	3.3	7.6	6.0	2.4	2.1	1.9	3.3
claims on households	7.0	3.5	4.2	4.3	3.5	3.3	3.6	3.8	4.2
claims on enterprises	4.2	2.4	-0.9	3.2	2.4	-0.9	-1.5	-1.9	-0.9
claims on the public sector (net)	1.3	17.0	6.0	18.6	17.0	7.0	7.8	10.2	6.0
Other assets (net) of the banking system	0.3	-18.4	-6.1	-21.4	-18.4	-13.9	-11.4	-7.0	-6.1
% of GDP, ESA 95									
General government revenues	32.9	33.6	31.8	..	..	..	..	..	..
General government expenditures	35.0	41.5	40.0	..	..	..	..	..	..
General government balance	-2.1	-7.9	-8.2	..	..	..	..	..	..
Primary balance	-0.8	-6.5	-6.8	..	..	..	..	..	..
Gross public debt	27.8	35.4	42.1	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	13.4	-16.8	22.8	-18.5	-1.2	17.7	26.4	23.9	23.0
Merchandise imports	13.4	-20.0	25.5	-22.3	-8.4	11.1	28.3	32.7	29.0
% of GDP (based on EUR), period total									
Trade balance	-1.2	1.5	0.2	2.5	2.3	2.0	2.2	-1.9	-1.2
Services balance	-0.7	-2.0	-1.1	-1.7	-1.9	-1.8	-1.3	-0.9	-0.6
Income balance (factor services balance)	-2.9	-2.0	-1.9	-3.1	-3.1	-2.3	-2.3	-1.2	-1.9
Current transfers	-1.3	-1.1	-0.6	-0.7	-2.1	0.4	-0.9	-1.3	-0.7
Current account balance	-6.1	-3.6	-3.5	-3.0	-4.9	-1.6	-2.3	-5.3	-4.3
Capital account balance	1.2	0.7	1.5	0.0	0.4	2.6	0.0	1.8	1.9
Foreign direct investment (net)	4.5	-0.5	0.2	0.2	2.0	2.1	0.3	-2.3	1.1
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	58.3	71.9	74.7	73.4	71.9	72.9	74.6	75.0	74.7
Gross official reserves (excluding gold) ¹	19.8	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.8
Months of imports of goods and services									
Gross official reserves (excluding gold) ¹	2.8	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
EUR million, period total									
GDP at current prices	64,687	63,051	65,906	16,497	16,288	15,149	16,267	17,470	17,020

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

¹ Given Slovakia's adoption of the euro, the concept of the calculation of international reserves changed at the beginning of 2009. In particular, reserves no longer include foreign assets in euro and claims on euro area residents.

Economic recovery continues but remains fragile

3 Slovenia: Fiscal Consolidation Remains a Challenge

Despite a minor dent in the third quarter, economic recovery continued in the second half of 2010, with year-on-year GDP growth reaching 1.9%. Net exports were a substantial pillar of the recovery in the third quarter, while their contribution to overall GDP growth turned mildly negative in the final quarter, as export growth slowed down and import growth picked up. The recovery was also supported to a large extent by inventory rebuilding. Among other components of domestic demand, final consumption growth strengthened continuously over the second half of the year, but its recovery remained uneven and was influenced by a substantial expansion (3.2%) of public consumption in the fourth quarter. In particular, the recovery of private consumption growth seems to have been slowed by adverse labor market developments, weak consumer confidence and a renewed slowdown in the growth of credit to households. Investment growth remained negative also in the second half of 2010, a development which has to be seen in connection with the decline in construction activity, although the pace of the decline moderated somewhat. While industrial capacity utilization continued to slowly edge up and industrial confidence improved, the growth of credit to the corporate sector turned negative in August 2010.

Underlying inflation pressure remains subdued

Apart from a temporary dip to 1.6% in November, inflation fluctuated between 2.0% and 2.4% between September 2010 and February 2011, while core inflation was hovering around 0%. Inflationary pressures were particularly subdued (even deflationary) in services and non-energy industrial goods, while they were substantially higher and have intensified for energy and food prices. Subdued underlying inflation has been supported not only by relatively weak domestic demand but also by the moderation of unit labor cost growth, which (in particular in industry) additionally bodes well for the country's competitiveness after the deterioration in 2008–09. However, the goods and services balance worsened in the reporting period as imports grew at a stronger pace than exports. Mainly due to the increase in current transfers from the EU, however, the current account balance improved slightly.

Fiscal consolidation in 2011 slower than expected

The general government budget deficit amounted to 5.6% of GDP in 2010, down from 6.0% of GDP in 2009 and – mainly due to revenue overperformance – slightly below the target set in the country's 2009 stability programme update (5.7% of GDP). In its spring 2011 fiscal notification to Eurostat, the government forecasts a general government budget deficit of 4.8% in 2011. This represents a slower consolidation than projected in the 2009 stability programme update (4.2% of GDP). With a view to securing the long-term sustainability of public finances, parliament passed a new pension law in December 2010, which includes a gradual increase of the statutory retirement age to 65 years and bonuses for people who work longer. However, the further fate of the reform is uncertain, given that a referendum on the issue will likely be held (according to opinion polls, around 60% of respondents oppose the reform).

Table 3

Main Economic Indicators: Slovenia

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	3.7	-8.1	1.2	-8.8	-5.7	-1.2	2.1	1.7	2.1
Private consumption	2.9	-0.8	0.5	-0.2	-0.5	-0.7	0.2	1.6	0.8
Public consumption	6.2	3.0	0.8	3.9	0.2	0.4	0.2	-0.7	3.2
Gross fixed capital formation	8.5	-21.6	-6.7	-22.2	-16.0	-10.1	-4.3	-8.3	-4.2
Exports of goods and services	3.3	-17.7	7.8	-18.1	-6.9	5.6	10.5	8.3	6.6
Imports of goods and services	3.8	-19.7	6.6	-19.3	-11.1	3.9	10.3	5.1	7.0
Contribution to GDP growth in percentage points									
Domestic demand	4.2	-10.5	0.4	-10.5	-9.5	-2.4	2.0	-0.3	2.3
Net exports of goods and services	-0.5	2.2	0.7	1.5	3.6	1.1	0.1	2.0	-0.5
Exports of goods and services	2.5	-13.1	5.1	-13.3	-4.8	3.7	6.7	5.5	4.5
Imports of goods and services	3.0	-15.3	4.5	-14.8	-8.4	2.6	6.6	3.5	5.0
Year-on-year change of the period average in %									
Labor productivity in industry (real)	3.1	-8.4	12.8	-8.4	5.3	9.4	18.1	13.0	10.9
Average gross earnings in industry (nominal)	7.8	1.4	8.5	1.0	3.5	9.9	9.6	8.3	6.6
Unit labor costs in industry (nominal)	4.9	10.4	-3.7	10.3	-1.7	0.4	-7.2	-4.2	-3.8
Producer price index (PPI) in industry	3.9	-1.4	2.0	-3.1	-2.0	-1.2	2.1	3.2	3.8
Consumer price index (here: HICP)	5.5	0.9	2.1	-0.2	1.4	1.7	2.4	2.3	2.0
EUR per 1 SIT, + = SIT appreciation	..	..	..	..	..	..	..	..	..
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	4.5	6.0	7.4	6.3	6.6	7.3	7.3	7.2	7.9
Employment rate (% , 15–64 years)	68.6	67.5	66.2	68.3	67.5	66.3	66.5	66.3	65.7
Key interest rate per annum (%)	..	..	..	..	..	..	..	..	..
SIT per 1 EUR	..	..	..	..	..	..	..	..	..
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	6.9	1.7	3.3	2.8	1.7	0.2	2.4	2.8	3.3
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	-11.9	6.6	-3.9	6.2	6.6	11.5	0.7	-4.8	-3.9
Domestic credit of the banking system	20.8	2.1	6.8	3.1	2.1	-3.2	3.9	8.5	6.8
of which: claims on the private sector	22.7	4.7	2.9	6.6	4.7	4.5	5.2	3.2	2.9
claims on households	5.0	2.7	4.0	2.5	2.7	3.4	4.3	4.1	4.0
claims on enterprises	17.7	2.0	-1.1	4.2	2.0	1.2	0.9	-0.9	-1.1
claims on the public sector (net)	-1.8	-2.6	4.0	-3.5	-2.6	-7.7	-1.4	5.3	4.0
Other assets (net) of the banking system	-2.0	-7.0	0.4	-6.5	-7.0	-8.1	-2.1	-0.8	0.4
% of GDP, ESA 95									
General government revenues	42.3	43.2	43.9	..	..	..	..	..	..
General government expenditures	44.1	49.0	49.7	..	..	..	..	..	..
General government balance	-1.8	-5.8	-5.8	..	..	..	..	..	..
Primary balance	-0.7	-4.4	-4.2	..	..	..	..	..	..
Gross public debt	22.5	35.4	40.7	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	1.2	-19.4	13.9	-21.4	-8.1	7.2	15.7	17.4	14.9
Merchandise imports	5.7	-25.8	14.9	-27.7	-15.5	6.3	19.9	15.2	17.9
% of GDP (based on EUR), period total									
Trade balance	-7.1	-2.0	-2.7	-2.5	-3.2	-1.5	-2.2	-1.9	-5.1
Services balance	4.0	3.1	2.9	3.3	3.0	2.7	3.2	2.8	2.9
Income balance (factor services balance)	-2.8	-2.2	-1.7	-2.7	-1.3	-1.9	-1.4	-1.7	-1.7
Current transfers	-0.8	-0.4	0.3	-0.7	0.9	-0.6	-0.5	0.1	2.1
Current account balance	-6.7	-1.5	-1.2	-2.6	-0.6	-1.4	-0.8	-0.7	-1.8
Capital account balance	-0.1	-0.0	0.0	-0.0	-0.5	0.5	0.0	0.2	-0.6
Foreign direct investment (net)	1.0	-1.5	1.4	-0.5	-0.9	-0.5	0.7	0.3	4.9
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	105.2	113.8	113.4	113.0	113.8	116.1	118.3	117.1	113.4
Gross official reserves (excluding gold) ¹	1.7	1.9	1.9	1.9	1.9	1.8	2.1	1.9	1.9
Months of imports of goods and services									
Gross official reserves (excluding gold) ¹	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
EUR million, period total									
GDP at current prices	37,305	35,384	36,061	9,038	8,891	8,300	9,350	9,319	9,093

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

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

4 Bulgaria: Recovery Starts, Reduced External Imbalances, Progress in Containing Fiscal Deficit

Domestic demand starts to expand in the fourth quarter, but unemployment rises

Bulgaria's real GDP growth improved, coming to 1.7% in the second half of 2010. Due to the recovery of external demand in 2010, exports re-emerged as the demand component mainly contributing to GDP growth in 2010 and increased by 19.8% in the second half of 2010 year on year. Domestic demand components eventually entered positive territory in the fourth quarter, after still having contracted considerably in the third quarter. Subdued credit growth, a rising propensity to save as well as an unemployment rate that rose markedly in the fourth quarter from already elevated levels, continue to weigh on the recovery of private consumption.

Inflation surpasses government projections of 3.7% for 2011

Annual inflation has been increasing on the back of rising food and energy prices as well as due to additional increases in tobacco excise taxes since June 2010. Hence, in February 2011, HICP inflation (4.6%) overshot the government's inflation projections of 3.7% for 2011. Core inflation too has been increasing since mid-2010 (3.5% as at February 2011).

Reduced external imbalances, competitiveness improves

Strong external demand reduced external imbalances considerably so that Bulgaria's current account improved considerably in the second half of 2010 (compared to the same period 2009) while the deficit for the full year improved to -1% of GDP (from -9.9% in 2009). Most of the improvement can be attributed to the goods and services balance, but the deficit in the income balance also got smaller. On the financing side, net FDI picked up and amounted to 4% of GDP, thus covering comfortably the current account shortfall in 2010. Nevertheless, FDI remained noticeably under the average of 13.4% of GDP in the pre-crisis period 2000 to 2007.

Substantial increases in labor productivity in industry in recent quarters have helped to rein in the adverse unit labor cost (ULC) developments recorded during the crisis. Despite industrial wages continuing to increase strongly, ULC dynamics moderated substantially in 2010, and in the fourth quarter ULC were flat (in year-on-year terms), after having increased by about 20% annually in 2008 and 2009.

Progress in containing the fiscal deficit, National Reform Program to improve the business climate

As the EU Council opened an excessive deficit procedure (EDP) for Bulgaria in July 2010, the government implemented a number of measures to reduce its budget deficit, which eventually came in at 3.2% of GDP in 2010. Hence, restraint in public consumption and capital expenditures counterbalanced partially the drop in revenues that occurred as a consequence of the continued contraction in direct and indirect tax bases and the rise of unemployment. Moreover, the deficit in 2010 was largely financed by the fiscal reserve account, which had been set aside before the crisis, when the country recorded fiscal surpluses. Hence, in February 2011, the EU found the country's progress in removing the excessive deficit to be satisfactory. In 2011, government expenditures are to be reduced in nominal terms compared to 2010 so as to achieve a deficit target of 2.5% of GDP. The 2011 budget, which was passed in November 2010, is based on the assumption of a real GDP growth rate of 3.6%. Moreover, in March 2011, the government introduced a "National Reform Program 2011 – 2015" to improve the business climate as well as the efficiency of public expenditures.

Table 4

Main Economic Indicators: Bulgaria

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	6.2	-5.5	0.2	-5.0	-7.6	-4.8	1.0	0.3	3.1
Private consumption	3.4	-7.6	-1.2	-7.6	-7.3	-5.6	1.4	-1.5	0.7
Public consumption	-1.0	-6.5	-1.0	-0.2	-15.0	0.3	-3.0	-3.5	1.7
Gross fixed capital formation	21.9	-17.6	-16.5	-19.3	-28.2	-22.1	-21.9	-27.2	3.2
Exports of goods and services	3.0	-11.2	16.2	-9.0	-1.6	6.9	16.3	22.9	15.8
Imports of goods and services	4.2	-21.0	4.5	-20.2	-17.0	-1.5	2.9	5.3	10.7
Contribution to GDP growth in percentage points									
Domestic demand	8.0	-15.9	-5.2	-14.4	-19.6	-10.2	-5.6	-8.0	1.9
Net exports of goods and services	-1.9	11.8	6.2	10.5	13.0	5.2	7.2	11.4	0.7
Exports of goods and services	2.0	-7.0	9.6	-6.2	-0.8	4.0	9.5	15.1	8.5
Imports of goods and services	3.9	-18.8	3.4	-16.6	-13.8	-1.2	2.3	3.7	7.8
Year-on-year change of the period average in %									
Labor productivity in industry (real)	1.2	-8.5	8.0	-9.3	-2.4	6.9	7.4	8.4	9.2
Average gross earnings in industry (nominal)	21.4	11.4	9.7	9.6	11.2	10.0	9.2	10.2	9.3
Unit labor costs in industry (nominal)	20.0	21.9	1.6	20.9	13.9	2.9	1.7	1.6	0.1
Producer price index (PPI) in industry	11.1	-6.3	8.5	-10.2	-4.9	4.1	8.5	10.3	11.3
Consumer price index (here: HICP)	12.0	2.5	3.0	0.8	0.9	1.9	2.9	3.3	4.0
EUR per 1 BGN, + = BGN appreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	5.7	6.9	10.3	6.7	8.0	10.2	10.1	9.6	11.3
Employment rate (%), 15–64 years)	64.0	62.6	59.7	63.1	61.2	58.8	60.2	60.6	59.0
Key interest rate per annum (%) ¹	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
BGN per 1 EUR	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	8.8	4.2	6.4	1.6	4.2	7.7	8.0	8.4	6.4
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	-12.3	1.7	5.0	-9.3	1.7	3.5	2.9	4.8	5.0
Domestic credit of the banking system	26.3	6.6	5.1	15.0	6.6	7.5	9.1	7.0	5.1
of which: claims on the private sector	28.4	4.1	1.5	5.6	4.1	2.9	2.2	1.7	1.5
claims on households	10.3	2.3	-0.3	2.8	2.3	1.8	1.5	0.3	-0.3
claims on enterprises	18.1	1.8	1.8	2.8	1.8	1.1	0.8	1.4	1.8
claims on the public sector (net)	-2.1	2.5	3.7	9.4	2.5	4.6	6.9	5.3	3.7
Other assets (net) of the banking system	-5.1	-4.1	-3.7	-4.1	-4.1	-3.3	-4.0	-3.4	-3.7
% of GDP, ESA 95									
General government revenues	39.3	35.9	34.1	..	..	..	..	..	..
General government expenditures	37.6	40.6	38.0	..	..	..	..	..	..
General government balance	1.7	-4.7	-3.8	..	..	..	..	..	..
Primary balance	2.5	-3.9	-3.1	..	..	..	..	..	..
Gross public debt	13.7	14.7	18.2	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	7.6	-23.0	33.1	-26.6	-1.2	15.1	38.7	44.4	32.6
Merchandise imports	9.2	-33.3	13.4	-36.6	-26.2	-4.9	14.8	15.9	26.4
% of GDP (based on EUR), period total									
Trade balance	-24.3	-11.9	-6.7	-9.1	-9.6	-7.8	-9.1	-1.2	-9.2
Services balance	3.8	3.7	5.3	12.0	-0.1	0.1	4.4	14.6	0.7
Income balance (factor services balance)	-5.0	-4.4	-3.9	-3.9	-2.4	-5.2	-4.1	-4.0	-2.6
Current transfers	2.4	2.7	4.3	2.1	2.2	5.3	5.2	4.1	3.0
Current account balance	-23.1	-9.9	-1.0	1.2	-9.9	-7.6	-3.6	13.6	-8.2
Capital account balance	0.8	1.4	0.8	0.8	1.0	0.8	-1.0	1.8	1.4
Foreign direct investment (net)	17.6	9.7	4.0	6.2	13.0	0.3	4.9	4.5	5.6
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	104.9	108.0	101.8	104.7	108.0	106.7	107.2	103.6	101.8
Gross official reserves (excluding gold)	33.7	34.2	32.2	32.5	34.2	32.0	31.2	32.7	32.2
Months of imports of goods and services									
Gross official reserves (excluding gold)	5.1	7.4	6.5	6.6	7.4	7.0	6.6	6.8	6.5
EUR million, period total									
GDP at current prices	35,431	34,933	36,034	9,424	9,418	7,321	8,627	9,879	10,207

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

¹ Not available in a currency board regime.

Economic activity
gained momentum
in the second half
of 2010

Improving labor
market situation,
declining unit labor
costs in 2010

Czech koruna
continues to
appreciate vis-à-vis
the euro

Higher inflation
in the second half
of 2010 and in
early 2011

Further measures
to bring down
budget deficit

5 Czech Republic: Further Recovery despite Fiscal Consolidation Measures

Real GDP continued to grow robustly in the last two quarters of 2010 (by 2.4% and 2.9% year on year), bringing the annual average growth rate to 2.3%. This development was mainly due to restocking. As in previous quarters gross fixed capital investment contributed negatively to annual real GDP growth but in the second half of 2010 at a more moderate rate (inter alia due to strong investment in solar power plants). The contribution of private consumption to growth in 2010 was slightly positive but low due to fiscal austerity measures and subdued wage growth. Public consumption growth declined in the course of the year as a result of fiscal consolidation. In the second half of the year the contribution of net exports to GDP growth turned negative as import growth outpaced export growth. For the full year of 2010, the contribution of net exports to GDP growth was marginally positive.

After accelerating to above 8% in the beginning of 2010, unemployment dropped and came in at around 7% in the last quarter of 2010. The economic recovery was also reflected in a slower decline in employment in the second half of 2010 (-0.2% year on year). However, compared to pre-crisis levels, unemployment in the Czech Republic is still high. Unit labor costs also continued to decline towards the end of the year, with productivity growth outpacing wage increases. Industrial production (without construction) rose in the second half of 2010 by around 10% year on year due to strong demand from major trading partners.

The Czech koruna appreciated against the euro by about 4% at the end of March 2011 compared to the same period of the previous year and remained almost constant in the reference period from the beginning of October 2010 to the end of March 2011. The gradual appreciation reflects broadly positive investor sentiment. The current account was in surplus in the first quarter of 2010 but turned negative in the subsequent quarters as the income balance surpassed the trade balance because foreign-owned companies increasingly repatriated their profits. Net FDI covered about two-thirds of the current account deficit in 2010.

Inflation continued moving up in the course of 2010, reaching around 2% at the end of 2010 and in early 2011. Rising inflationary pressures were largely the result of higher global food and energy prices but also due to increases in regulated prices. Inflation remained below the inflation target of Česká národní banka (CNB), which is 2% +/- 1 percentage point. The CNB has kept its key interest rates constant at 0.75% since May 2010.

The government aims to bring down the deficit from 4.7% of GDP in 2010 to the target of 4.6% of GDP in 2011 and subsequently to 3.0% of GDP by 2013. The saving measures on the expenditure side comprise in particular cuts in public salaries (except teachers' salaries) and in infrastructure investment. Furthermore, the government plans cuts in social benefits. At the beginning of March, however, the constitutional court of the Czech Republic ruled that the planned consolidation measures would have to go through the parliamentary approval process again until the end of 2011 as the adoption of the bills had not followed the proper legislative process.

Table 5

Main Economic Indicators: Czech Republic

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	2.5	-4.1	2.3	-5.0	-2.9	1.0	2.9	2.4	2.9
Private consumption	3.6	-0.2	0.5	-0.6	-0.9	0.3	0.9	0.5	0.1
Public consumption	1.1	2.6	0.3	3.9	3.2	2.0	0.9	-0.2	-1.3
Gross fixed capital formation	-1.5	-7.9	-4.6	-10.3	-5.4	-9.4	-6.5	-0.4	-2.3
Exports of goods and services	6.0	-10.8	18.0	-9.3	2.6	18.0	20.7	15.7	17.7
Imports of goods and services	4.7	-10.6	18.0	-8.0	-1.7	15.3	20.0	18.6	17.9
Contribution to GDP growth in percentage points									
Domestic demand	1.1	-4.2	1.5	-4.3	-7.5	-1.9	1.3	3.9	2.5
Net exports of goods and services	1.4	-0.4	0.4	-1.5	4.3	2.8	1.4	-2.5	-0.1
Exports of goods and services	6.1	-11.3	17.6	-9.5	2.6	17.1	19.9	15.4	18.1
Imports of goods and services	4.7	-10.9	17.3	-8.0	-1.7	14.3	18.5	17.8	18.2
Year-on-year change of the period average in %									
Labor productivity in industry (real)	-2.8	-3.1	12.6	-0.8	10.4	15.8	14.6	10.1	10.3
Average gross earnings in industry (nominal)	8.1	4.4	3.4	5.9	7.4	3.9	3.4	2.9	3.5
Unit labor costs in industry (nominal)	11.4	7.5	-8.2	6.8	-2.8	-10.3	-9.8	-6.5	-6.2
Producer price index (PPI) in industry	0.4	-1.5	0.1	-3.7	-3.1	-3.9	0.4	2.0	1.9
Consumer price index (here: HICP)	6.3	0.6	1.2	-0.1	0.0	0.4	0.9	1.6	2.0
EUR per 1 CZK, + = CZK appreciation	11.2	-5.7	4.6	-5.8	-2.2	6.7	4.3	2.7	4.6
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	4.4	6.7	7.4	7.4	7.3	8.2	7.2	7.1	7.0
Employment rate (%), 15–64 years)	66.6	65.4	65.0	65.2	65.3	64.1	64.9	65.4	65.5
Key interest rate per annum (%)	3.5	1.5	0.8	1.3	1.2	1.0	0.8	0.8	0.8
CZK per 1 EUR	25.0	26.5	25.3	25.6	25.9	25.9	25.6	24.9	24.8
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	13.6	0.2	1.9	3.2	0.2	-0.8	2.8	3.9	1.9
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	0.2	1.0	0.6	-0.7	1.0	0.3	3.0	4.6	0.6
of which: Domestic credit of the banking system	11.0	4.6	4.0	6.6	4.6	4.8	5.9	3.1	4.0
claims on the private sector	10.6	0.3	2.1	2.0	0.3	-0.3	-0.2	0.4	2.1
claims on households	6.5	3.8	2.7	4.6	3.8	3.2	2.9	3.0	2.7
claims on enterprises	4.1	-3.5	-0.6	-2.5	-3.5	-3.5	-3.1	-2.6	-0.6
claims on the public sector (net)	0.4	4.3	1.9	4.6	4.3	5.1	6.1	2.7	1.9
Other assets (net) of the banking system	2.4	-5.4	-2.7	-2.7	-5.4	-5.9	-6.1	-3.8	-2.7
% of GDP, ESA 95									
General government revenues	40.2	40.2	40.6	..	..	..	..	..	..
General government expenditures	42.9	46.0	45.8	..	..	..	..	..	..
General government balance	-2.7	-5.8	-5.2	..	..	..	..	..	..
Primary balance	-1.6	-4.5	-4.0	..	..	..	..	..	..
Gross public debt	30.0	35.3	40.0	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	10.7	-18.6	18.4	-17.8	-4.3	13.9	21.7	16.9	20.6
Merchandise imports	11.5	-22.3	26.5	-21.2	-12.6	17.4	30.4	28.2	29.2
% of GDP (based on EUR), period total									
Trade balance	2.8	5.0	1.4	4.9	4.6	3.3	2.3	-0.3	0.7
Services balance	1.8	0.7	1.8	0.3	0.0	1.8	2.4	1.4	1.5
Income balance (factor services balance)	-4.7	-6.4	-7.0	-6.6	-4.7	-4.5	-8.8	-10.4	-4.3
Current transfers	-0.5	-0.4	-0.0	-1.2	-0.7	0.1	0.4	-0.5	-0.2
Current account balance	-0.6	-1.1	-3.8	-2.6	-0.8	0.7	-3.6	-9.8	-2.2
Capital account balance	0.8	1.1	0.9	0.6	1.7	0.3	1.0	1.6	0.8
Foreign direct investment (net)	1.0	0.7	2.6	-2.0	3.2	3.5	2.1	7.6	-2.5
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	40.3	45.1	49.2	43.3	45.1	45.2	47.3	49.2	49.2
Gross official reserves (excluding gold)	17.8	20.8	21.6	20.0	20.8	20.9	21.5	22.3	21.6
Months of imports of goods and services									
Gross official reserves (excluding gold)	2.9	3.9	3.5	3.7	3.9	3.9	3.8	3.8	3.5
EUR million, period total									
GDP at current prices	147,942	137,258	145,185	35,456	35,631	33,639	36,553	37,132	37,861

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

Economic growth
still driven by net
exports and
inventory rebuilding
in the second half
of 2010

Central bank
tightens policy
in response
to increasing
inflation risks

Reduction in public
debt top priority for
the government

6 Hungary: Structural Savings to Replace Temporary Revenue Measures after 2012

Year-on-year GDP growth in Hungary accelerated from 0.5% in the first half of 2010 to 1.8% in the second half. Growth was driven by net exports (which is also reflected in the further improvement of the current account balance) and the rebuilding of inventories. Investment continued to contract, and domestic consumption growth fell back into negative territory in the fourth quarter following a base effect-driven expansion in the third quarter. Historically low capacity utilization, tight credit conditions, still high unemployment (although down from earlier peaks) and decreasing net real wages were the major factors constraining domestic demand. However, confidence indicators have continued to recover gradually, with industrial and consumer confidence surpassing their multi-year average, and capacity utilization was also rising in early 2011. Two measures that took effect at the beginning of 2011 – a cut in personal income taxes and the launch of a new development programme for SMEs – are expected to stimulate domestic demand dynamics in the course of this year.

Following a temporary decline to 3.6% to 3.7% in the summer of 2010 (due to base effects), inflation moved back to the range of 4.0% to 4.6% between October 2010 and February 2011, mainly as a result of food and energy price increases. Core inflation also increased, but more moderately, to 2.0% to 2.3%. In order to anchor inflation expectations and prevent temporary price shocks (such as the increase in energy and food prices and passing sectoral special taxes on to consumers) from feeding through into wage and broader price formation, Magyar Nemzeti Bank (MNB) hiked its policy rate three times starting in November 2010 by a combined 75 basis points to 6.0%. According to the MNB staff's assessment, the current interest rate level should be sufficient to reach the medium-term inflation target (3%, CPI) by end-2012.

The 2010 general government budget deficit amounted to 4.2% of GDP (compared with a target of 3.8%). For 2011 the budget law foresees a general government budget deficit of 2.9% of GDP. However, currently the government forecasts a surplus of around 2% of GDP. The difference results from the transfer of assets from the funded pension pillar into the state budget (amounting to around 9% of GDP) at the beginning of this year, reduced by additional expenditures for the settlement of debts of selected public transport companies and for the government's buying out of PPP projects. Moreover, in February 2011 the government froze expenditures of around 0.9% of GDP as a buffer against unforeseen fiscal developments. Furthermore, in the context of its structural reform plans announced in March 2011, the government confirmed its commitment to reduce the deficit further to 1.9% of GDP by 2014. In order to achieve these targets it intends to implement savings measures (worth about 1.7% of 2010 GDP in 2012 and 2.5% in 2013 and 2014) focusing, inter alia, on disability pensions and public work programs, drug subsidies, early retirement and public transport. In addition, the government will introduce a new electronic road toll from 2013, and – contrary to previous plans – will not halve the extra tax on financial institutions in 2012 or reduce the standard corporate tax rate from 19% to 10%. According to the government, these measures, along with the use of funds obtained from the asset transfer from the funded pension pillar, should help to reduce public debt from around 80% of GDP in 2010 to around 65% in 2014.

Table 6

Main Economic Indicators: Hungary

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	0.8	-6.7	1.2	-7.5	-4.3	0.1	1.0	1.7	1.9
Private consumption	0.4	-7.9	-2.1	-10.1	-6.8	-3.7	-4.9	0.8	-0.5
Public consumption	1.0	-0.1	-1.7	-4.4	4.8	-1.4	-2.2	2.4	-5.0
Gross fixed capital formation	2.9	-8.0	-5.6	-8.3	-9.5	-4.8	-4.5	-2.6	-9.1
Exports of goods and services	5.7	-9.6	14.1	-7.7	2.9	15.5	15.8	13.9	11.7
Imports of goods and services	5.8	-14.6	12.0	-13.2	-1.8	10.4	14.4	13.0	10.3
Contribution to GDP growth in percentage points									
Domestic demand	0.8	-10.3	-1.2	-11.5	-7.5	-4.0	-1.2	0.3	-0.0
Net exports of goods and services	0.2	5.9	3.8	6.3	5.4	7.0	3.4	2.4	2.6
Exports of goods and services	7.0	-12.2	17.4	-9.6	3.4	19.1	19.1	17.1	14.7
Imports of goods and services	6.8	-18.1	13.6	-15.9	-2.1	12.0	15.7	14.7	12.1
Year-on-year change of the period average in %									
Labor productivity in industry (real)	0.2	-6.6	11.5	-4.5	4.8	14.8	14.8	10.4	6.9
Average gross earnings in industry (nominal)	6.3	4.7	5.1	5.9	5.3	8.0	5.2	4.5	2.9
Unit labor costs in industry (nominal)	6.4	12.2	-6.0	11.3	-0.5	-6.2	-8.3	-5.6	-3.6
Producer price index (PPI) in industry	4.6	4.6	6.3	4.1	0.4	-0.9	5.9	10.5	9.8
Consumer price index (here: HICP)	6.0	4.0	4.7	4.9	4.9	5.8	5.2	3.6	4.3
EUR per 1 HUF, + = HUF appreciation	-0.2	-10.3	1.9	-13.0	-2.7	9.5	4.1	-3.9	-1.8
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	7.9	10.1	11.2	10.4	10.5	11.9	11.2	10.9	10.9
Employment rate (%), 15–64 years	56.6	55.4	55.4	55.5	55.5	54.5	55.3	56.0	55.8
Key interest rate per annum (%)	8.7	8.6	5.5	8.5	6.8	5.9	5.3	5.3	5.4
HUF per 1 EUR	251.7	280.5	275.4	271.3	270.9	268.7	274.6	282.4	275.7
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	8.8	3.4	3.0	7.5	3.4	0.1	3.4	2.5	3.0
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	-3.8	13.3	4.3	15.1	13.3	11.4	12.3	3.6	4.3
Domestic credit of the banking system	18.2	-4.1	6.3	0.8	-4.1	-10.5	2.8	5.4	6.3
of which: claims on the private sector	20.4	-4.7	3.7	5.3	-4.7	-16.0	2.9	1.1	3.7
claims on households	12.7	0.8	4.6	6.4	0.8	-3.8	5.4	3.4	4.6
claims on enterprises	7.6	-5.3	-1.4	-0.9	-5.3	-12.5	-3.0	-2.8	-1.4
claims on the public sector (net)	-2.1	0.5	2.6	-4.5	0.5	5.5	-0.1	4.3	2.6
Other assets (net) of the banking system	-5.6	-5.8	-7.6	-8.4	-5.8	-0.9	-11.7	-6.4	-7.6
% of GDP, ESA 95									
General government revenues	45.1	46.1	45.1	..	..	..	..	..	..
General government expenditures	48.9	50.5	48.9	..	..	..	..	..	..
General government balance	-3.7	-4.4	-3.8	..	..	..	..	..	..
Primary balance	0.4	0.2	0.3	..	..	..	..	..	..
Gross public debt	72.3	78.4	78.5	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	6.4	-19.7	20.5	-19.5	-4.2	18.0	22.5	21.8	19.7
Merchandise imports	7.0	-24.9	19.4	-26.3	-11.7	12.5	22.6	22.5	19.8
% of GDP (based on EUR), period total									
Trade balance	-0.5	3.6	4.7	3.5	4.1	5.6	5.0	3.7	4.7
Services balance	0.9	1.4	2.4	2.5	1.1	2.7	2.6	3.1	1.5
Income balance (factor services balance)	-7.1	-5.1	-5.5	-5.0	-4.8	-5.4	-6.0	-5.5	-5.2
Current transfers	-0.6	0.4	0.4	0.7	0.4	-0.2	1.0	0.5	0.3
Current account balance	-7.3	0.4	2.1	1.7	0.9	2.7	2.6	1.8	1.3
Capital account balance	1.0	1.2	1.8	1.3	0.7	2.0	1.6	1.8	1.9
Foreign direct investment (net)	2.6	-0.5	0.6	-1.5	2.8	-1.7	-1.5	0.8	4.1
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	116.1	146.1	139.1	140.8	146.1	147.7	144.8	140.4	139.1
Gross official reserves (excluding gold)	22.5	32.8	34.1	32.5	32.8	35.4	36.2	34.4	34.1
Gross official reserves (excluding gold)	3.3	5.5	5.2	5.3	5.5	5.9	5.9	5.4	5.2
GDP at current prices	106,442	93,168	98,420	23,899	26,453	22,405	24,255	24,496	27,264

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

7 Poland: Economic Dynamics Still Outperforming Those of Most Other CESEE Countries

Fixed investment growth to overcome uncertainties in 2011

Poland posted annual GDP growth of 3.8% in 2010 (after 1.7% in 2009). After reaching 4.8% in the third quarter, growth declined to 4.0% in the fourth quarter. The swing in inventory change to restocking made the difference in the contribution of domestic demand to GDP growth between 2009 and 2010. By contrast, fixed investment declined even more strongly in 2010 than in 2009. It started to pick up only in the second half of 2010, at a year-on-year rate of below 1%. Sales lagging production growth (implying the inventory build-up) and uncertainties with respect to future demand help to explain this weak performance. However, rising capacity utilization, improved profitability, the good financial situation of enterprises, the availability of EU funds, public infrastructure projects and strong housing loan growth are factors that should support investment this year. Production growth led to moderate employment and wage growth that helped accelerate private consumption growth, which remained below GDP growth but more than offset the deterioration of investment in 2010. The rise in domestic demand led to higher import growth than export growth, but at the same time it was sufficient to accelerate GDP growth although the contribution of net exports to GDP growth turned moderately negative. This also implied a rise in the current account deficit to 3.4% of GDP, which was only partially covered by FDI inflows of 1% of GDP.

Monetary tightening cycle fending off second-round effects

Inflation increased to 3.3% (HICP) and 3.6% (CPI) in February 2011, after a low of 1.9% (HICP) and 2.0% (CPI) in August 2010, due to, among other things, the hike in the VAT rate on 1 January, rising food prices and the jump in oil prices, which was only partially offset by the appreciation of the zloty against the U.S. dollar as the zloty remained roughly stable against the euro. These factors outpaced still moderate demand pressures and a continuous (albeit declining) fall of nominal unit labor costs in manufacturing. At the same time, core inflation started to rise too due to increasing processed food prices, reaching 2.2% (HICP) and 1.7% (CPI) in February, after 1.4% (HICP) and 1.2% (CPI) in August 2010. With headline inflation above the inflation target (CPI: 2.5%), a rise in core inflation and in inflation expectations as well as the expectation of continuing growth dynamics, the Polish monetary policy council decided to raise the key policy rate by 25 basis points to 4% on April 5, 2011, to reduce the risk of inflation running above the inflation target in the medium term. Already in January 2011, it had hiked up this rate by 25 basis points for the first time since the crisis.

Enhanced fiscal consolidation envisaged for 2011 and 2012

Despite the Ecofin recommendation of July 7, 2009, to put an end to the excessive deficit by 2012, the general government deficit reached 7.9% of GDP in 2010 (including about 3% of GDP net fiscal costs of systemic pension reform). Taking into account the government's plan for fiscal consolidation of August 2010 (including a VAT rate hike from 22% to 23% and the abolition of early retirement), in the fall of 2010 the Commission projected the deficit to decline to 6.0% and the government gross debt to rise to 59.6% in 2012. Thus, in early 2011 the government adopted further measures to bring the deficit to close to 3% of GDP in 2012 (this figure includes the net fiscal costs of the systemic pension reform in the amount of about 3% of GDP). These measures comprise pension reform amendments (slower build-up of the capital funded pillar), which was implemented in April 2011, reductions of spending on active labor market policies in 2011 and a public sector wage freeze in 2012 (after the parliamentary elections in October 2011).

Table 7

Main Economic Indicators: Poland

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	5.1	1.7	3.8	1.2	3.5	2.7	3.7	4.8	4.1
Private consumption	5.7	2.0	3.2	2.4	1.1	2.3	2.9	4.4	3.1
Public consumption	7.4	2.0	4.0	-0.8	4.4	0.8	2.7	4.3	7.8
Gross fixed capital formation	9.6	-0.8	-2.0	-0.2	-0.3	-12.9	-1.7	0.8	0.8
Exports of goods and services	7.0	-8.5	10.1	-8.4	0.8	9.5	15.2	8.7	7.3
Imports of goods and services	8.1	-12.5	11.5	-12.4	-3.9	7.7	17.4	9.4	11.5
Contribution to GDP growth in percentage points									
Domestic demand	5.8	-1.3	4.5	-1.9	1.1	2.0	4.5	5.2	6.1
Net exports of goods and services	-0.8	2.2	-0.8	2.4	1.8	0.4	-1.2	-0.6	-1.8
Exports of goods and services	2.8	-3.4	3.6	-3.5	0.3	3.4	5.5	3.2	2.5
Imports of goods and services	3.6	-5.6	4.4	-5.8	-1.6	3.0	6.7	3.8	4.3
Year-on-year change of the period average in %									
Labor productivity in industry (real)	1.5	2.4	11.5	5.4	11.9	13.7	13.5	11.1	8.3
Average gross earnings in industry (nominal)	8.8	4.9	5.0	4.4	5.1	4.4	4.6	5.0	6.0
Unit labor costs in industry (nominal)	7.4	2.5	-6.0	-1.0	-6.4	-8.2	-7.7	-5.6	-2.2
Producer price index (PPI) in industry	2.4	3.9	2.3	2.7	2.4	-1.4	1.3	4.2	5.2
Consumer price index (here: HICP)	4.2	4.0	2.7	4.3	3.8	3.4	2.5	2.1	2.7
EUR per 1 PLN, + = PLN appreciation	7.6	-18.8	8.4	-21.1	-9.7	12.7	10.9	4.7	5.3
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	7.2	8.3	9.7	8.2	8.6	10.7	9.6	9.2	9.4
Employment rate (%), 15–64 years)	59.2	59.4	59.3	59.9	59.4	58.2	59.3	60.0	59.6
Key interest rate per annum (%)	5.7	3.8	3.5	3.5	3.5	3.5	3.5	3.5	3.5
PLN per 1 EUR	3.5	4.3	4.0	4.2	4.2	4.0	4.0	4.0	4.0
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	18.6	8.1	8.7	9.6	8.1	5.5	7.1	8.9	8.7
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	-13.6	3.2	3.2	-1.9	3.2	5.1	7.8	5.2	3.2
Domestic credit of the banking system	39.2	9.2	10.1	18.0	9.2	1.1	7.4	9.9	10.1
of which: claims on the private sector	30.1	6.7	8.0	16.2	6.7	0.8	6.6	7.0	8.0
claims on households	20.8	6.8	8.3	13.7	6.8	3.5	7.7	7.5	8.3
claims on enterprises	9.3	-0.2	-0.3	2.5	-0.2	-2.6	-1.1	-0.5	-0.3
claims on the public sector (net)	9.1	2.5	2.1	1.8	2.5	0.3	0.8	3.0	2.1
Other assets (net) of the banking system	-6.9	-4.3	-4.6	-6.5	-4.3	-0.7	-8.1	-6.2	-4.6
% of GDP, ESA 95									
General government revenues	39.5	37.2	38.2	..	..	..	..	..	..
General government expenditures	43.2	44.4	46.2	..	..	..	..	..	..
General government balance	-3.7	-7.2	-7.9	..	..	..	..	..	..
Primary balance	-1.5	-4.7	-5.2	..	..	..	..	..	..
Gross public debt	47.1	50.9	55.5	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	14.1	-15.8	20.3	-18.8	1.0	17.9	25.3	20.6	17.7
Merchandise imports	17.2	-24.3	22.5	-26.6	-11.7	17.0	27.0	22.9	22.9
% of GDP (based on EUR), period total									
Trade balance	-4.9	-1.0	-1.7	-1.0	-1.1	-0.8	-1.3	-1.8	-2.6
Services balance	1.0	1.1	0.7	0.9	1.2	0.7	0.9	0.6	0.7
Income balance (factor services balance)	-2.4	-3.8	-3.7	-3.4	-3.8	-3.4	-3.8	-4.0	-3.6
Current transfers	1.5	1.5	1.3	1.6	0.4	2.1	2.0	1.0	0.3
Current account balance	-4.8	-2.2	-3.4	-1.9	-3.4	-1.4	-2.2	-4.3	-5.2
Capital account balance	1.1	1.6	1.8	0.6	1.9	1.6	1.2	1.5	2.8
Foreign direct investment (net)	1.9	2.0	1.1	3.6	1.6	3.9	0.1	-0.2	0.7
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	48.0	62.7	65.9	60.2	62.7	62.8	62.4	67.2	65.9
Gross official reserves (excluding gold)	11.6	16.9	18.8	16.2	16.9	18.8	19.9	20.2	18.8
Gross official reserves (excluding gold)	3.2	5.2	5.3	4.9	5.2	5.7	5.9	5.8	5.3
GDP at current prices	363,163	311,166	354,430	79,159	89,410	81,295	85,418	87,152	100,565

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

Economy seems to
be bottoming out

Inflation still
elevated

Persistent current
account gap but
positive signs in the
second half of 2010

Follow-up program:
reform anchor and
safety net

8 Romania: On the Road to Delayed Recovery?

Annual GDP growth in Romania remained negative in the second half of 2010, bringing the full-year figure to -1.3%. As additional fiscal consolidation measures negatively affected private and public consumption in the second half of 2010, gross fixed capital formation contracted considerably, particularly in the third quarter. In contrast to the first half of 2010, export growth exceeded import growth. Although improving markedly, the contribution of net exports to growth continued to be negative due to sizeable differences in the base levels of imports and exports. Only changes in inventories and the statistical discrepancy delivered positive growth contributions. It is noteworthy that in seasonally adjusted quarter-on-quarter terms GDP grew marginally in the final quarter after having shrunk notably in the third quarter. Together with positive trends in high frequency economic indicators this suggests that the Romanian economy may finally be starting to recover.

Inflation has remained elevated since a VAT rate hike which pushed up consumer prices in July 2010. The yearly inflation rate (CPI) climbed to 8% at end-2010, and hence was well above the central bank target (i.e. 3.5% +/- 1 percentage point for end-2010). In February 2011, inflation fell slightly to 7.6%. In addition to the VAT hike effects, rising food and energy prices boosted inflation. Presently, Banca Națională a României (BNR) forecasts inflation to decline to 3.6% by end-2011 and thus to reach this year's target range (3% +/- 1 percentage point). The central bank argues that the effects of the VAT hike will fade out and that GDP will stay below its potential level, thereby reducing price pressures.

Following a substantial adjustment in 2009, the current account deficit as a percentage of GDP narrowed only slightly in 2010 and is still among the highest in CESEE. Yet, current account figures developed more favorably in the second half than in the first half of 2010. After the current account deficit (measured in euro) had increased by one half in the first six months of 2010 compared to the same period of 2009, it declined by 40% year on year in the second half of 2010. The better performance in the second half of 2010 was mainly the result of accelerating export growth – leading to a notable decline in the trade deficit – and an increasing surplus in the current transfers balance. A continued decline in unit labor costs (alongside a broadly stable currency) presumably supported exports in the second half of 2010.

The multilateral support program agreed upon in the spring of 2009 has remained on track, therefore further tranches of financial assistance (EUR 900 million by the IMF, EUR 1.2 billion by the EU) were disbursed in January and March respectively. The Romanian authorities decided not to draw the final IMF tranche of EUR 1 billion. Moreover, Romania requested a follow-up program to the expiring Stand-By Arrangement (SBA) to signal its commitment to reform and to ensure foreign investor confidence. In March 2011, the IMF approved a precautionary SBA of EUR 3.6 billion, which is being combined with EU precautionary support of EUR 1.4 billion and a World Bank loan of EUR 0.4 billion. The follow-up program focuses on continued fiscal consolidation and on boosting potential growth through structural reforms. Key elements include improving public sector efficiency, increasing the absorption of EU structural funds as well as energy and transport sector reforms. The IMF ascertained that the fiscal measures implemented in 2010 together with continued prudent expenditure policies put the fiscal cash deficit targets of 4.4% of GDP in 2011 and 3% of GDP in 2012 well within reach.

Table 8

Main Economic Indicators: Romania

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	7.4	-7.1	-1.3	-7.1	-6.5	-2.2	-0.4	-2.2	-0.6
Private consumption	9.0	-10.3	-1.6	-10.8	-5.0	-4.4	-0.4	-0.9	-1.2
Public consumption	7.3	1.6	-3.6	-0.3	-0.9	-3.9	-4.5	-1.3	-4.3
Gross fixed capital formation	15.6	-25.3	-13.1	-27.5	-31.3	-28.3	-7.7	-15.5	-4.7
Exports of goods and services	7.3	-5.0	14.3	-3.5	4.2	10.2	17.6	11.8	18.0
Imports of goods and services	7.1	-21.4	12.4	-20.9	-11.6	8.6	19.3	8.7	13.0
Contribution to GDP growth in percentage points									
Domestic demand	13.0	-20.5	-0.1	-19.4	-15.0	8.9	-2.8	-1.2	-2.8
Net exports of goods and services	-2.8	16.3	-2.5	16.3	8.4	-1.7	-7.4	-1.1	-0.7
Exports of goods and services	3.3	-2.2	6.6	-1.5	1.4	6.0	8.8	5.2	6.7
Imports of goods and services	6.1	-18.6	9.1	-17.7	-7.0	7.7	16.2	6.3	7.4
Year-on-year change of the period average in %									
Labor productivity in industry (real)	6.8	10.9	17.1	14.1	24.8	22.2	20.3	14.4	12.8
Average gross earnings in industry (nominal)	21.3	11.2	9.3	10.0	9.5	12.4	8.2	8.3	8.7
Unit labor costs in industry (nominal)	14.1	0.5	-7.0	-3.4	-13.3	-8.4	-10.3	-5.4	-3.9
Producer price index (PPI) in industry	15.4	1.9	6.3	-1.4	2.0	3.5	6.1	7.2	8.5
Consumer price index (here: HICP)	7.9	5.6	6.1	5.0	4.5	4.6	4.3	7.5	7.8
EUR per 1 RON, + = RON appreciation	-9.4	-13.1	0.7	-15.4	-10.5	3.7	0.3	-0.7	-0.5
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	6.1	7.2	7.6	7.2	7.8	8.4	7.2	7.2	7.6
Employment rate (%), 15–64 years)	59.1	58.6	58.8	60.4	57.4	57.0	60.1	60.2	57.9
Key interest rate per annum (%)	9.7	9.1	6.5	8.7	8.0	7.2	6.3	6.3	6.3
RON per 1 EUR	3.7	4.2	4.2	4.2	4.3	4.1	4.2	4.3	4.3
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	17.5	9.0	6.9	10.7	9.0	8.4	8.2	6.5	6.9
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	-10.7	5.0	0.8	3.7	5.0	8.8	12.6	4.3	0.8
Domestic credit of the banking system	41.5	12.6	14.0	16.8	12.6	3.0	11.4	12.2	14.0
of which: claims on the private sector	33.7	1.2	5.2	2.9	1.2	-1.7	7.3	5.1	5.2
claims on households	18.7	0.6	1.0	2.1	0.6	-1.6	2.6	1.7	1.0
claims on enterprises	15.0	0.6	4.2	0.8	0.6	-0.1	4.7	3.4	4.2
claims on the public sector (net)	7.8	11.4	8.8	13.9	11.4	4.7	4.1	7.1	8.8
Other assets (net) of the banking system	-13.3	-8.7	-7.8	-9.8	-8.7	-3.4	-15.8	-10.0	-7.8
% of GDP, ESA 95									
General government revenues	32.5	32.4	32.9	..	..	..	..	..	..
General government expenditures	38.2	41.0	40.2	..	..	..	..	..	..
General government balance	-5.7	-8.6	-7.3	..	..	..	..	..	..
Primary balance	-5.0	-7.1	-5.4	..	..	..	..	..	..
Gross public debt	13.3	23.9	30.4	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	14.2	-13.7	28.0	-14.3	0.9	20.3	30.9	27.2	32.8
Merchandise imports	11.6	-32.0	19.8	-34.3	-21.1	12.4	25.9	17.2	23.1
% of GDP (based on EUR), period total									
Trade balance	-13.7	-5.8	-4.7	-5.4	-5.1	-5.1	-6.5	-3.7	-4.0
Services balance	0.5	-0.3	-0.5	-0.4	-0.4	-1.2	-0.5	-0.3	-0.1
Income balance (factor services balance)	-2.5	-1.8	-1.8	-1.4	-1.4	-2.2	-2.7	-1.3	-1.1
Current transfers	4.3	3.5	2.8	3.7	2.2	1.9	2.2	3.9	3.0
Current account balance	-11.4	-4.4	-4.1	-3.4	-4.6	-6.6	-7.4	-1.5	-2.3
Capital account balance	0.5	0.5	0.2	0.6	0.8	0.2	0.2	0.2	0.2
Foreign direct investment (net)	6.6	3.8	2.6	3.5	2.0	3.5	3.3	3.1	1.1
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	51.8	69.1	74.6	65.6	69.1	73.5	73.7	73.9	74.6
Gross official reserves (excluding gold)	19.0	24.1	26.7	23.0	24.1	27.1	26.5	27.0	26.7
Gross official reserves (excluding gold)	5.2	7.8	7.8	7.4	7.8	8.7	8.2	8.2	7.8
GDP at current prices	139,587	117,442	121,660	31,245	36,418	23,645	27,985	32,761	37,270

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

Anaemic domestic demand weighs on economic dynamics

Current account deficit at 15-year low, but external debt remains a cause for concern

Given a benign inflationary environment, HNB acts to boost economic activity

Further deteriorating public finances coupled with sizeable financing needs

9 Croatia: Stubborn Recession Accompanied by Increasing Fiscal Risks

General economic conditions continued to be weak in Croatia in 2010, as GDP contracted by 1.2%. After shifting marginally into positive territory in the third quarter of 2010, growth again turned negative in the fourth quarter. Domestic demand remained anaemic in the second half of 2010. However, while investment stayed depressed, private consumption showed tentative signs of recovery thanks to the tax reliefs related to the personal income tax reform and the abolition of the crisis tax. At the same time, public consumption remained lukewarm against the background of increasing fiscal constraints. Net exports continued to contribute positively to economic growth, but somewhat less so than in the first half of 2010, given firming import growth.

Predominantly driven by a further improving trade balance, the current account adjustment continued in 2010, implying a current account deficit of 1.4% of GDP for the full year 2010, the lowest level for one and a half decades. Similarly, net FDI inflows slowed markedly too, but given a more pronounced current account adjustment, the coverage ratio improved to 90%. Gross external debt continued to increase (albeit at a much slower pace than 2009) and reached 100% of GDP at end-2010, largely driven by increasing public sector debt on the back of a eurobond issue on international markets in July 2010. At the same time, reserve accumulation continued, and by end-2010 foreign exchange reserves had climbed to EUR 10.7 billion or 23.3% of GDP.

Against the background of still weak domestic demand and adverse labor market conditions, with the unemployment rate climbing to 11.8% in 2010 (2009: 9.1%), inflation averaged a moderate 1% in 2010, even though it was gradually picking up toward the end of the year. Consumer prices edged up further to an average 2.2% in the first quarter of 2011, driven by higher energy and food prices as well as the carry-over effects of the increase in the excise tax on tobacco in September 2010. The kuna has lost slightly in value against the euro since September 2010. In order to mitigate downward exchange rate pressures, Hrvatska narodna banka (HNB) intervened two times in favor of the kuna in November 2010, totaling EUR 350 million. With a view to encouraging bank lending and thus supporting economic activity, in March 2011 the HNB cut the minimum required foreign currency liquidity ratio from 20% to 17%.

Poor economic conditions weighed on budget revenues while leading to additional spending. This continued to put public finances under pressure in 2010 and translated into a general government budget deficit of 5.7% of GDP. The cyclical shortfall in revenues was compounded by tax reliefs which took effect in the second half of 2010. According to Croatia's 2010 Pre-Accession Economic Programme, the government targets a general government budget deficit of 5.6% of GDP in the election year 2011, which is expected to fall to 3.9% in 2012 and 2.4% in 2013, mainly driven by fiscal consolidation on the expenditure side.

Given its financing needs, the government tapped both domestic and international bond markets in 2010. As a consequence, public debt levels rose sharply to 41% of GDP by end 2010. To finance the budget deficit and refinance maturing public debt, in March 2011 the government issued notes denominated in U.S. dollar worth EUR 1.1 billion in a private placement and also plans to issue eurobonds and bonds on the domestic market later this year. Citing primarily elevated fiscal risks, in December 2010 S&P cut Croatia's sovereign rating from BBB to BBB- while maintaining a negative outlook.

Table 9

Main Economic Indicators: Croatia

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	2.2	-6.0	-1.2	-5.7	-4.6	-2.3	-2.3	0.3	-0.6
Private consumption	0.9	-8.2	-0.8	-6.6	-7.2	-3.9	-2.4	1.9	1.1
Public consumption	1.8	0.0	-0.9	-0.8	-3.7	-1.3	-2.0	-1.0	0.7
Gross fixed capital formation	8.2	-11.8	0.0	-10.5	-11.3	-13.9	-13.4	-9.5	0.0
Exports of goods and services	2.2	-17.3	6.0	-19.7	-11.8	2.8	6.9	4.1	10.8
Imports of goods and services	3.3	-20.4	-1.3	-23.4	-12.2	-4.8	-4.9	3.4	1.1
Contribution to GDP growth in percentage points									
Domestic demand	3.0	-9.4	-4.2	-5.8	-6.4	-5.4	-7.1	-0.2	-4.4
Net exports of goods and services	-0.9	4.3	3.0	1.1	2.2	3.3	5.0	0.6	3.4
Exports of goods and services	1.0	-7.7	2.4	-12.2	-4.7	0.9	2.5	2.1	3.9
Imports of goods and services	1.9	-12.0	-0.7	-13.3	-6.8	-2.4	-2.5	1.6	0.5
Year-on-year change of the period average in %									
Labor productivity in industry (real)	3.2	0.1	6.3	1.1	2.9	8.7	4.8	7.4	4.8
Average gross earnings in industry (nominal)	6.2	1.4	0.2	1.7	-1.2	0.1	-0.5	-0.5	1.6
Unit labor costs in industry (nominal)	2.9	1.5	-5.9	0.5	-4.0	-8.0	-5.0	-7.3	-3.1
Producer price index (PPI) in industry	8.3	-0.4	4.3	-2.3	0.1	3.5	4.8	3.8	5.1
Consumer price index (here: CPI)	6.1	2.4	1.0	1.2	1.7	0.9	0.7	1.1	1.5
EUR per 1 HRK, + = HRK appreciation	1.6	-1.6	0.7	-1.9	-1.4	1.7	1.5	1.0	-1.2
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	8.6	9.3	12.1	8.9	9.6	11.5	12.7	11.8	12.4
Employment rate (%), 15–64 years)	57.8	56.6	54.1	57.1	56.4	54.9	53.5	54.0	53.8
Key interest rate per annum (%)	5.3	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0
HRK per 1 EUR	7.2	7.3	7.3	7.3	7.3	7.3	7.2	7.3	7.4
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	4.3	-0.9	4.4	-1.2	-0.9	1.6	2.8	3.8	4.4
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	-3.6	1.5	-0.4	-6.8	1.5	5.1	3.1	6.6	-0.4
Domestic credit of the banking system	13.2	-0.5	8.6	8.7	-0.5	-0.9	4.1	0.4	8.6
of which: claims on the private sector	10.3	-0.6	7.0	1.9	-0.6	-0.5	3.2	5.3	7.0
claims on households	6.3	-1.6	2.1	0.4	-1.6	-1.8	0.1	0.9	2.1
claims on enterprises	4.0	1.0	4.9	1.5	1.0	1.4	3.0	4.3	4.9
claims on the public sector (net)	2.9	0.1	1.6	6.7	0.1	-0.4	1.0	-4.9	1.6
Other assets (net) of the banking system	-5.4	-1.8	-3.7	-3.1	-1.8	-2.6	-4.5	-3.1	-3.7
% of GDP, ESA 95									
General government revenues	39.4	38.5	37.8	..	..	..	..	..	..
General government expenditures	40.8	42.6	43.5	..	..	..	..	..	..
General government balance	-1.4	-4.1	-5.7	..	..	..	..	..	..
Primary balance	0.1	-2.4	-3.7	..	..	..	..	..	..
Gross public debt	28.9	35.3	40.9	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	6.8	-21.5	18.1	-30.9	-16.0	5.4	22.3	18.8	25.9
Merchandise imports	10.7	-26.8	-0.3	-31.1	-21.2	-9.4	-2.3	6.3	4.1
% of GDP (based on EUR), period total									
Trade balance	-22.6	-16.2	-13.0	-15.0	-16.1	-12.1	-13.0	-13.7	-13.0
Services balance	14.6	12.4	12.6	30.5	3.5	1.2	12.3	30.5	3.8
Income balance (factor services balance)	-3.3	-4.0	-3.5	-3.1	-3.7	-4.3	-2.9	-4.1	-2.8
Current transfers	2.2	2.3	2.4	2.0	2.6	2.4	2.5	2.3	2.5
Current account balance	-9.1	-5.5	-1.4	14.4	-13.6	-12.8	-1.1	15.0	-9.4
Capital account balance	0.0	0.1	0.1	0.0	0.3	0.1	0.1	0.1	-0.0
Foreign direct investment (net)	6.8	2.6	1.3	-0.0	3.0	5.0	-0.8	2.5	-1.5
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	83.6	97.7	99.7	93.0	97.7	97.7	98.6	97.5	99.7
Gross official reserves (excluding gold)	19.1	22.7	23.2	20.2	22.7	21.6	22.6	24.3	23.2
Months of imports of goods and services									
Gross official reserves (excluding gold)	4.6	7.0	7.2	5.9	7.0	6.7	7.1	7.6	7.2
EUR million, period total									
GDP at current prices	47,770	45,666	45,910	12,259	11,258	10,646	11,524	12,557	11,183

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

**Accelerating
domestic demand ...**

**... and widening
external deficits ...**

**... triggered an
eclectic monetary
policy response**

10 Turkey: Strong Growth alongside Increasing External Imbalances

After moderating somewhat in the third quarter of 2010, growth in Turkey accelerated again notably in the fourth quarter of 2010, nourishing concerns about an incipient overheating of the economy arising from buoyant domestic demand and huge credit growth. Domestic demand was the main driver of growth, backed by a vibrant increase in gross fixed capital formation. Private consumption also rose strongly. Domestic demand was fueled by credit growth of 35% to 45% year on year in recent months, which is far beyond the 25% the Central Bank of the Republic of Turkey (CBRT) would judge appropriate at the current stage.

Capacity utilization, on a steady upward path since September 2010, has not yet reached its 2007 average of 80.2% and stood at 76.4% in seasonally adjusted terms in March 2011. Likewise unemployment has been declining but remains above its 2008 level. Consumer prices decelerated markedly over the past six months due to a sharp drop in unprocessed food prices, which was helped by the strong lira versus the U.S. dollar until the end of 2010. Consumer price inflation reached an all-time low of 4.2% in February 2011. Producer prices, however, have shown an upward trend since November, implying future inflationary pressure. Core inflation slowed in the fourth quarter and helped reach the CBRT's end-year inflation target of 6.5% in 2010. The inflation target for end of 2011 is set at 5.5%.

Buoyant domestic demand triggered substantial import demand, leading to the largest current account deficit in more than two decades. Structural weaknesses of the economy and weakening price competitiveness (reflected by rising unit labor costs in local currency terms) added to this development, as did the currency appreciation until late 2010. The lira appreciated against the euro until November 2010 and since then has depreciated, helped by policies, by around 10%. The increasingly short-term financing of the current account deficit is another concern. Portfolio investment inflows surged to five times their 2009 value, accounting for almost 40% of the current account deficit in 2010 while FDI inflows accounted for only 18%.

The increasingly unbalanced composition of growth coupled with large capital inflows brought about macrofinancial stability challenges and caused the CBRT to use an unconventional policy mix from November 2010 on; this policy mix combines lowering the interest rate differential between Turkey and advanced economies while raising reserve requirement ratios to slow down loan growth. The CBRT lowered the 1-week repo rate in two steps by 75 basis points to 6.25%. Increases in reserve requirements were inversely related to deposit maturities from December on; the CBRT has moved away from the flat rate of 6% laid down only shortly earlier. In a recent decision, reserve requirement ratios were raised for the third time since October, bringing the demand and one-month deposit ratio to 15%. As a result, the total amount of liquidity withdrawn exceeds 10% of the lira-denominated loan stock, indicating an overall tightening of monetary policy. While these policies may have supported the weakening of the lira and consequently helped to contain capital inflows, they have not yet shown a large impact on domestic loan growth.

As a result of strong tax receipts, the budget deficit came down to 3.7% of GDP in 2010, i.e. below the medium term target of 4.0%. The government has announced to stick to its 2011 deficit target of 2.8% to allay possibly concerns about fiscal laxity in the run-up to the parliamentary elections in June 2011. Public debt fell to roughly 40% of GDP in 2010 and should come down to 36.8% in 2013 under the Medium Term Plan announced in October 2010.

Table 10

Main Economic Indicators: Turkey

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	0.7	-4.8	8.9	-2.8	5.9	12.0	10.3	5.2	9.2
Private consumption	-0.3	-2.3	6.6	-1.9	5.0	7.5	3.3	6.5	9.0
Public consumption	1.7	7.8	2.0	5.1	18.2	0.6	4.7	-0.9	3.2
Gross fixed capital formation	-6.2	-19.0	29.9	-18.2	-4.2	16.8	28.4	30.0	42.1
Exports of goods and services	2.7	-5.0	3.4	-5.2	7.2	-0.9	12.5	-1.6	4.3
Imports of goods and services	-4.1	-14.3	20.7	-11.7	11.0	22.0	19.2	16.2	25.4
Contribution to GDP growth in percentage points									
Domestic demand	-1.2	-6.6	12.4	-4.3	6.6	15.3	11.0	9.4	14.6
Net exports of goods and services	1.9	2.8	-4.5	1.9	-1.1	-5.7	-2.1	-4.3	-5.7
Exports of goods and services	0.6	-1.2	0.8	-1.3	1.7	-0.2	2.9	-0.4	1.0
Imports of goods and services	-1.2	-4.1	5.3	-3.1	2.8	5.5	5.0	4.0	6.7
Year-on-year change of the period average in %									
Labor productivity in industry (real)	-0.3	-0.3	8.4	1.2	16.1	16.7	8.8	4.2	5.2
Average gross earnings in industry (nominal)	11.1	8.4	10.8	7.3	9.4	11.0	10.6	10.8	10.7
Unit labor costs in industry (nominal)	11.6	8.9	1.9	6.1	-5.8	-4.9	1.6	6.4	5.2
Producer price index (PPI) in industry	13.0	1.0	6.2	-2.2	1.0	4.6	6.6	6.6	6.7
Consumer price index (here: HICP)	10.4	6.3	8.6	5.3	5.7	9.3	9.2	8.4	7.4
EUR per 1 TRY, + = TRY appreciation	-6.3	-11.8	8.3	-15.1	-7.9	3.6	9.3	9.6	10.8
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	10.0	12.9	10.9	12.4	12.0	13.3	10.1	10.3	10.0
Employment rate (%), 15–64 years	44.9	44.2	46.3	45.9	44.9	43.8	47.3	47.5	46.5
Key interest rate per annum (%) ¹	16.0	9.2	6.8	8.0	6.7	6.5	6.8	7.0	6.9
TRY per 1 EUR	1.91	2.16	2.00	2.14	2.20	2.09	1.96	1.96	1.99
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	24.7	13.0	18.4	16.5	13.0	12.8	17.2	15.9	18.4
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	6.4	-1.2	-7.3	5.1	-1.2	-6.1	-6.6	-6.4	-7.3
Domestic credit of the banking system	19.7	21.5	30.1	18.3	21.5	26.8	30.2	28.1	30.1
of which: claims on the private sector	15.3	9.9	27.8	5.4	9.9	15.6	22.4	23.6	27.8
claims on households	6.2	2.7	8.4	1.3	2.7	4.4	5.8	7.2	8.4
claims on enterprises	9.1	7.1	19.4	4.1	7.1	11.2	16.6	16.5	19.4
claims on the public sector (net)	4.3	11.6	2.4	12.9	11.6	11.2	7.8	4.5	2.4
Other assets (net) of the banking system	-1.4	-7.2	-4.5	-6.9	-7.2	-7.8	-6.4	-5.8	-4.5
% of GDP, ESA 95									
General government revenues	32.3	33.8	15.2	..	..	..	..	..	..
General government expenditures	34.5	40.5	18.9	..	..	..	..	..	..
General government balance	-2.2	-6.7	-3.7	..	..	..	..	..	..
Primary balance	2.8	-1.8	0.7	..	..	..	..	..	..
Gross public debt	39.5	45.4	42.8	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	13.7	-17.7	16.2	-26.5	-4.5	0.6	29.7	16.5	19.0
Merchandise imports	11.0	-26.6	39.4	-30.1	-7.2	26.4	42.7	36.8	49.3
% of GDP (based on EUR), period total									
Trade balance	-7.1	-4.0	-7.7	-5.4	-4.3	-5.5	-7.0	-8.5	-9.2
Services balance	2.3	2.6	2.0	5.0	2.1	0.5	1.6	3.7	1.6
Income balance (factor services balance)	-1.1	-1.3	-1.1	-1.1	-1.0	-1.5	-1.0	-0.8	-1.1
Current transfers	0.3	0.4	0.2	0.3	0.5	0.2	0.2	0.2	0.2
Current account balance	-5.6	-2.3	-6.6	-1.2	-2.7	-6.3	-6.2	-5.4	-8.4
Capital account balance	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Foreign direct investment (net)	2.1	1.1	1.0	1.1	0.7	0.7	0.6	1.0	1.5
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	40.0	42.3	0.0	42.0	42.3	43.1	44.3	39.8	39.2
Gross official reserves (excluding gold)	10.2	11.1	11.2	11.0	11.1	11.2	11.8	10.9	10.9
Gross official reserves (excluding gold)	4.3	5.4	5.4	5.3	5.4	5.4	5.6	5.0	4.9
GDP at current prices	499,704	440,487	554,605	122,057	115,442	115,763	136,689	152,196	149,957

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

¹ Up to April 2010: overnight borrowing rate; from May 2010: one-week repo (lending) rate.

**Oil price-fuelled
GDP growth
reached
4% in 2010**

**In response to rising
inflation, the central
bank resorted to
various tightening
measures**

**Lending recovers
while NPLs remain
elevated**

**Oil price rise also
bolsters Russia's
external accounts...**

**...and helps rein in
its budget deficit**

11 Russia: Recovery Benefits from High Oil Prices

Overcoming a temporary slowdown of economic activity due to extreme weather conditions in the summer, Russia's GDP expanded by 4.0% in 2010. After reaching 4.3% (on average) in the first half year, GDP growth (year on year) dipped to 3.1% in the third quarter of 2010. Agriculture was particularly hard hit. Buoyed by increasing oil prices, Russia's recovery then re-accelerated to 4.5% in the final quarter of 2010. Demand-side data show that Russia's recovery in 2010 was predominantly driven by the inventory cycle (re-stocking), followed by private consumption and fixed investment. Given that real imports expanded even faster than real exports, net exports' contribution to overall growth reverted to negative territory (while it had been highly positive in 2009). Private and government consumption revived less dynamically (3.0% and 1.4% respectively) than total GDP in 2010.

Sharp food and energy price rises (the former partly caused by the lingering impact of the severe summer heat wave) and high M2 growth (29.5% in the 12 months to January 2011, pushed by the partial monetization of the budget deficit, see below) contributed to increasing inflation in recent months. Thus, CPI inflation (year on year) rose from below 6% in mid-2010 to 8.6% at year-end and 9.4% in February 2011. In response, Bank Rossii (BR) raised the overnight deposit rate in two steps (December 2010 and February 2011) from 2.5% to 3.0%; it increased reserve requirements in three steps between January and March 2011 for foreign liabilities from 2.5% to 5.5% and for domestic liabilities from 2.5% to 4.0%. Moreover the refinancing rate was lifted in February from 7.75% to 8.0% (it remains, however, negative in real terms). Furthermore, in the framework of BR's more flexible exchange rate stance, in early March the ruble's floating corridor was widened by ±50 kopeks to a range of RUB 32.45 to RUB 37.45 versus the U.S. dollar-euro basket, which helped accommodate appreciation pressures on the ruble. The Russian currency's nominal-effective exchange rate gained 6% in the three months to end-February 2011 (though only 2% year on year).

The banking sector is slowly recovering, while nonperforming loans remain high. In the 12 months to end-February 2011, credit to the private sector grew by 4.6% (in real terms), while the deposits of the private sector expanded by over 12%. NPLs at end-2010 seemed to have stabilized at 8.2% of total loans (end-2009 and mid-2010: 9.5%), though reportedly around one-third of credits have been restructured.

Given the much higher average oil price and the recovery of export volumes, Russia's current account surplus in 2010 rose to 4.8% of GDP (from 4.0% a year earlier). Although it increased somewhat in absolute terms, gross external debt declined to 32.8% of GDP at end-2010. At this point, the size of Russia's foreign currency reserves (including gold) had caught up with the country's external debt again, despite a pick-up of capital outflows in recent months. Foreign currency reserves (excluding gold) expanded to EUR 332 billion at end-March 2011.

The recovery and rising oil prices helped improve the fiscal balance somewhat: The federal budget deficit in 2010 came in at 4.0% of GDP (while according to the budget law, a shortfall of 5.3% had been planned). Deficit finance has partly been monetized by using the Reserve Fund, which shrank to EUR 18.9 billion at end-February 2011 (from EUR 30.3 billion at end-September 2010). The National Wealth Fund to support the state pension system has remained largely stable in recent months (end-February 2011: EUR 65.8 billion).

Table 11

Main Economic Indicators: Russia

	2008	2009	2010	Q3 09	Q4 09	Q1 10	Q2 10	Q3 10	Q4 10
Year-on-year change of the period total in %									
GDP at constant prices	5.2	-7.8	4.0	-8.6	-2.6	3.5	5.0	3.1	4.5
Private consumption	10.5	-4.8	3.0	-7.8	-5.7	-0.5	4.6	5.1	2.6
Public consumption	3.4	0.2	1.4	-0.1	0.8	2.4	1.9	1.4	0.0
Gross fixed capital formation	10.6	-14.4	6.1	-16.3	-8.5	-4.4	6.4	5.0	11.6
Exports of goods and services	0.6	-4.7	7.1	-3.0	7.7	18.7	4.1	2.2	5.0
Imports of goods and services	14.8	-30.4	25.6	-33.8	-15.1	11.3	21.6	34.6	29.9
Contribution to GDP growth in percentage points									
Domestic demand	9.7	-13.9	9.3	-7.3	-36.1	-0.1	5.1	3.7	26.1
Net exports of goods and services	-5.6	11.4	-5.8	13.8	9.5	3.1	-4.8	-10.2	-9.5
Exports of goods and services	0.2	-1.6	2.5	-0.9	2.8	6.4	1.4	0.7	2.0
Imports of goods and services	5.8	-13.0	8.3	-14.7	-6.7	3.3	6.2	10.9	11.6
Year-on-year change of the period average in %									
Labor productivity in industry (real)	3.1	0.1	0.0	1.1	12.8	16.7	15.8	8.8	0.0
Average gross earnings in industry (nominal)	25.0	3.2	14.2	0.7	5.2	11.8	15.6	15.2	141
Unit labor costs in industry (nominal)	21.5	3.2	0.0	-0.4	-7.0	-4.3	-0.1	5.9	0.0
Producer price index (PPI) in industry	21.8	-6.6	12.3	-13.1	5.0	13.9	12.4	8.4	14.5
Consumer price index (here: CPI)	14.1	11.8	7.1	11.5	9.3	7.3	6.2	6.6	8.2
EUR per 1 RUB, + = RUB appreciation	-3.9	-17.4	9.6	-18.5	-17.3	7.4	13.7	13.3	4.3
Period average levels									
Unemployment rate (ILO definition, %, 15–64 years)	6.4	8.4	7.5	7.8	8.1	8.8	7.4	6.8	6.8
Employment rate (%), 15–64 years)	..	..	..	..	..	..	..	..	..
Key interest rate per annum (%)	10.9	11.4	8.0	10.9	9.4	8.6	8.0	7.8	7.8
RUB per 1 EUR	36.4	44.1	40.3	44.8	43.6	41.3	38.5	39.5	41.7
Nominal year-on-year change in the period-end stock in %									
Broad money (including foreign currency deposits)	14.3	17.3	24.6	7.9	17.3	22.1	24.0	25.4	24.6
Contributions to the year-on-year change of broad money in percentage points									
Net foreign assets of the banking system	16.0	10.5	5.7	6.0	10.5	5.7	10.5	10.9	5.7
Domestic credit of the banking system	14.9	19.4	22.1	20.7	19.4	21.9	19.5	20.4	22.1
of which: claims on the private sector	34.2	2.9	12.4	9.9	2.9	-0.9	5.4	8.8	12.4
claims on households	8.0	-2.8	3.1	-2.7	-2.8	-2.0	0.1	1.9	3.1
claims on enterprises	26.2	5.6	9.3	12.5	5.6	1.1	5.2	6.9	9.3
claims on the public sector (net)	-19.3	16.5	9.7	10.9	16.5	22.9	14.1	11.6	9.7
Other assets (net) of the banking system	-16.6	-12.7	-3.3	-18.8	-12.7	-5.4	-6.0	-5.9	-3.3
% of GDP, ESA 95									
General government revenues	38.8	35.1	35.0	..	..	..	..	..	..
General government expenditures	33.9	41.4	38.5	..	..	..	..	..	..
General government balance	4.9	-6.3	-4.0	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt	5.7	8.3	8.7	..	..	..	..	..	..
Year-on-year change of the period total (based on EUR) in %									
Merchandise exports	24.2	-32.4	39.7	-36.6	-13.1	51.8	53.4	31.2	28.5
Merchandise imports	22.7	-31.3	37.5	-37.7	-26.6	11.9	42.1	54.9	37.9
% of GDP (based on EUR), period total									
Trade balance	10.7	9.0	10.2	10.0	9.6	14.5	11.2	7.6	8.6
Services balance	-1.5	-1.6	-1.9	-1.9	-1.5	-1.5	-1.7	-2.4	-1.9
Income balance (factor services balance)	-2.9	-3.2	-3.2	-3.1	-3.4	-2.5	-4.0	-3.2	-3.0
Current transfers	-0.2	-0.2	-0.3	-0.4	-0.3	-0.2	-0.1	-0.4	-0.4
Current account balance	6.1	4.0	4.8	4.6	4.4	10.4	5.4	1.6	3.3
Capital account balance	0.0	-0.9	0.0	-3.7	0.0	0.1	0.0	-0.0	0.0
Foreign direct investment (net)	1.2	-0.6	-0.7	0.8	-1.2	-0.7	-0.6	-0.8	-0.7
% of GDP (rolling four-quarter GDP, based on EUR), end of period									
Gross external debt	30.5	36.9	32.8	35.0	36.9	37.2	37.7	33.1	32.8
Gross official reserves (excluding gold)	26.1	32.9	29.8	29.1	32.9	34.0	35.7	31.9	29.8
Months of imports of goods and services									
Gross official reserves (excluding gold)	14.2	19.2	16.4	16.3	19.2	20.4	21.1	18.0	16.4
GDP at current prices	1,132,828	879,147	1,115,871	233,099	248,417	231,561	275,702	297,854	310,753

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

OeNB-BOFIT Outlook for Selected CESEE Countries: Domestic Demand Strengthens and External Demand Moderates¹

Growth in the **CESEE-7 region**² remained uneven across countries in 2010, but has become more balanced from 2011 onward. Backed by recovering domestic demand and continued (albeit declining) support from external demand, GDP growth is expected to reach 3.1% in 2011 and to increase only moderately to 3.8% in 2012. This overall upward revision of our September projections for the region concerns all countries equally, with the exception of the Czech Republic, for which we revise our forecast downward by 0.6 percentage points. Traditional growth drivers are re-emerging in the CESEE-7. Domestic demand, backed by a strong rebound in investment and a moderate revival of private consumption, will contribute positively to GDP growth again from 2011. The contribution of net exports is shrinking continually and will turn negative in many countries in 2012. In tandem, capacity utilization is rising sharply. At the same time, restocking has mostly come to an end. The projected acceleration of growth to almost 4% in 2012 should bring back a considerable growth differential to Western Europe (of about 2 percentage points), thus ensuring that the convergence process (which slowed down substantially over the past two years) will pick up again. Nevertheless, growth rates will remain below their precrisis levels, which can be attributed to the elevated need for fiscal consolidation in a number of countries, continuously tight credit conditions, a weak construction sector and a moderation of demand in the region's major trading partners, mainly the euro area.

Following a temporary pickup during the winter, GDP growth in **Russia** is expected to slow down gradually during the forecast period, slipping from 5.5% in 2011 to 4.7% in 2012.

CESEE-7: GDP Growth Projections for 2010 to 2012

%, in real terms, year on year



Source: OeNB-BOFIT March 2011 forecast, Eurostat, IMF.

¹ 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). They are based on a broad range of available information, including country-specific time series models for Bulgaria, Croatia, the Czech Republic, Hungary, Poland and Romania (for technical details, see Crespo Cuaremasa, Feldkircher, Slacik and Wörz, 2009. Simple but Effective: The OeNB's Forecasting Model for Selected CESEE Countries. Focus on European Economic Integration Q4/09. 84–95). The projections for Russia were prepared by the Bank of Finland Institute for Economies in Transition and are based on an SVAR model. The cutoff date for all projections in this box is March 24, 2011.

² Bulgaria, the Czech Republic, Hungary, Latvia, Lithuania, Poland and Romania. Latvia and Lithuania are not covered by our own projections in this note, but are included in the CESEE-7 aggregate based on the most recent IMF projections.

One of the reasons for this decline is that imports are projected to continue expanding rapidly, at about 16% in 2011 and around 10% in 2012. **Croatia's** GDP growth, in turn, will recover rather moderately by 1.4% in 2011 and accelerate somewhat to 2.3% in 2012 thanks to a further strengthening of domestic demand.

CESEE-7: Cautious Revival of Domestic Demand Hampered by Consolidation Needs

Although growth rates converged somewhat in the second half of 2010, growth was still uneven in the region in **2010** and came to 2% on average. While growth was supported by the sharp expansion in economic activity in Poland and the Czech Republic, it was dampened by weak but positive growth in Hungary and Bulgaria and a persisting real contraction in Romania. In the course of 2010, unemployment rates stabilized in the CESEE-7 region and even declined in some countries, while the downward trend in employment levels came to a halt. Economic sentiment turned cautiously positive in most countries.

For **2011**, we expect a further increase of the region's average growth rate to 3.1% and a more even development across countries. With a growth rate of 4.2%, Poland will continue to outperform the other CESEE-7 countries. Growth will accelerate in all CESEE-7 countries except the Czech Republic, where a substantial austerity program is being implemented (even though it was repealed by the country's constitutional court unless it is reapproved by parliament before the end of 2011).

Restocking is coming to an end and investment will pick up as a result of already high capacity utilization levels and renewed demand for investment in the wake of the crisis. Private consumption will also turn positive again in all CESEE-7 countries, while we expect no impetus from public consumption due to harsh budget constraints. Nevertheless, domestic demand is reviving in the region, and we expect it to strengthen further over the forecast horizon. Domestic demand will thus resume its traditional role and contribute positively to economic growth in all CESEE-7 countries except the Czech Republic. Here, the contribution will be slightly negative in 2011.

External demand will cease to be the most important growth driver, as exports are losing momentum. On the one hand, this projection rests on the assumption that euro area import dynamics will moderate; on the other hand, it is associated with the swift and strong rebound in exports in early 2010 and a strong growth impulse from Germany in early 2010, which started to fade out already in the second half of 2010. The trend of currency appreciation further weighs on international price competitiveness, thus compounding these effects. Yet net exports will continue to contribute positively to growth in the CESEE-7 countries and in the Czech Republic in particular. However, their positive contribution is diminishing in all countries under review and will turn negative in Bulgaria and Romania already in 2011. Despite a sharp rise in investment and a revival of private consumption, import growth rates will moderate in tandem with export growth as a result of the high import content of exports in these countries.

The picture will remain largely unchanged in **2012**. Domestic demand and investment will gain further momentum, but both will remain well below their 2005–2008 average. This is related to continuing tight credit conditions and sluggish FDI inflows as a result of lower investor trust and strong competition, especially from Asia. Import growth will accelerate to more than 8% across the CESEE-7 region. Net exports will make a negative contribution in all countries apart from Hungary and the Czech Republic.

All countries with the exception of Romania will recover to their precrisis GDP levels in 2012. As Poland, the largest economy in the region, did not experience any output loss in 2009, the CESEE-7 region as a whole will reach its precrisis output level already by the end of 2011. With growth rates coming close to 4% again, the process of catching up with Western Europe will pick up pace again after having slowed down substantially for more than two years.

These forecasts are subject to risks that are mainly related to developments in the euro area. Euro area growth may turn out stronger than assumed here, thus posing a sizeable upside risk stemming from external demand. Some downside risks could emerge from fiscal consolidation needs that are stronger than those already addressed by policymakers in the region. Some uncertainty continues to prevail with respect to changes in investor confidence (i.e. the development of global risk aversion, in particular vis-à-vis emerging economies). We still assume that investor confidence will continue to improve gradually over the projection horizon. Investor confidence could, however, strengthen more quickly or it could weaken again, e.g. as a result of contagion from worsening investment conditions in some Western European countries or as a result of a global loss of trust because of current developments in Japan.

Russia: Brisk, but Moderating Growth

Russia's recovery from its deep recession temporarily slowed down in the fall of 2010, which was especially attributable to a stronger-than-forecast rebound of imports and to production losses caused by extreme weather conditions in the summer. Economic growth picked up this winter, supported by the sharp rise of oil, metal and gas prices in recent months. Due to this positive terms-of-trade shock and to the relatively low base level in 2010 (including the unexpected growth dip in the third quarter), annual GDP growth is projected to increase by more than 5% in 2011. GDP expansion is then projected to ease to less than 5% in 2012, assuming that the oil price remains unchanged at around USD 100 per barrel over the forecast period. The revival of private consumption was rather lackluster in 2010 (3%), while real household income increased by around 4%. Looking ahead, consumption will grow more briskly and will likely become the main growth driver. This will help the agricultural sector rebound from a drastic drop in 2010. Wages are foreseen to rise rather swiftly, but not as fast as in the years before the recession. Consumption is also supported by an expected decline in the household savings rate, which had risen considerably during the crisis, as well as by the continuing growth of household bank lending, which gradually revived in 2010. Yet the increase in households' purchasing power is constrained by inflation, which – spearheaded by the rise in food prices and favored by the expansion of M2 – accelerated to almost 10% and induced a tightening of monetary policy. Public consumption, after marginal growth in 2009–2010, is anticipated to increase slowly over the forecast period. This development is backed by the oil price, which is higher than assumed in the three-year budget for 2011–2013 and will thus generate additional budget revenues and allow for some additional expenditure, also in the context of the forthcoming elections.

As noted in the previous outlook, fixed investment is recovering with a delay (+6.1% in 2010 following a plunge in 2009). A full-fledged revival is expected for 2011 and 2012, as during the latter part of 2011, utilization of production capacity can be expected to rise to the level observed during the pre-slump boom. Remarkably, inventory restocking was the main growth driver in 2010. In our forecast, this inventory cycle is assumed to be almost completed. Russia's export volume picked up quickly in 2010 from a recessionary dip and exceptional disruptions of gas delivery in early 2009. However, from 2011, exports are expected to increase relatively slowly – compared to global trade – since export volumes of crude oil and oil products are not likely to grow. That said, anticipated increases in natural gas deliveries and in exports of Russia's other basic commodities will partly alleviate the situation.

In 2010, Russia's imports recovered considerably faster than forecast, with import volumes rising by 25% from a crevasse of -30% in 2009. The import surge partly stemmed from a disturbance to production during the summer. Import growth eased again last winter and is forecast to slow down gradually toward the end of the forecast period, but it is still expected to roll on at about 15% in 2011 and around 10% in 2012. In any case, imports continue to be propped up by the Russian ruble's real exchange rate, which is likely to further appreciate as the current account will remain in surplus.

This forecast, like that of September 2010, is based on the assumption of strong growth in the world economy and world trade. The oil market price is assumed to be high (even if flat), which implies high prices for Russia's other main exports, i.e. fuel oils, gas and metals. The forecast is surrounded by considerable uncertainty. The associated risk is mostly on the upside, as prices could rise even higher due to uncertainty concerning the extent and timing of supply reactions to growing demand and given that exports continue to account for 30% of Russia's GDP. Yet the Russian government may delay spending the additional tax revenues generated by the rise in oil prices. Global uncertainties may entail considerable swings in financial inflows and outflows. In Russia, faster-than-expected inflation would further erode real consumption growth but boost real appreciation and support the propensity to import.

Delayed Recovery in Croatia Backed by Nascent Domestic Demand

Economic conditions remained weak in Croatia in 2010, with GDP contracting by 1.2% year on year as domestic demand continued to decline (albeit at a diminishing rate). However, while investment activity (in particular in the construction sector) remained depressed throughout the year, private consumption showed tentative signs of recovery in the latter part of 2010, following a personal income tax reform and the abolition of a crisis tax on household income. At the same time, public consumption remained subdued against the background of increasing fiscal constraints. Net exports continued to contribute positively to economic growth, although somewhat less so than in 2009, given gradually firming import growth toward end-2010.

The Croatian economy is forecast to grow by 1.4% in 2011, with both domestic demand and net exports contributing to economic growth. Investment activity is expected to turn marginally positive, driven by strengthening credit growth and improving business sentiment. Private consumption should gather momentum as the impact of the tax reform fully materializes and first signs of improving labor market conditions become apparent. Even though 2011 is an election year, no major stimuli are to be expected from public consumption given the freezing of budget expenditures for 2011 at the level of the revised 2010 budget. Export growth is expected to stay firm in 2011, but will be accompanied by a further acceleration of import growth in light of strengthening domestic demand. Accordingly, the positive contribution of net exports to GDP growth is likely to diminish further.

In 2012, GDP growth is expected to accelerate to 2.3% driven by strengthening domestic demand. In particular, gross fixed capital formation is forecast to pick up on the back of increased FDI inflows ahead of the envisaged EU accession.

Box 4

OeNB Euro Survey: Expectations of CESEE Households Remain Pessimistic despite Rebound in Real GDP Growth in 2010

The OeNB Euro Survey,¹ which is conducted twice per year (May/June and October/November), collects data on respondents' expectations regarding the general economic situation of their countries and the financial situation of their households.

Households' Assessment of the Future Economic Situation

After CESEE countries had been hit severely by the economic and financial crisis in 2009, the general sentiment about the future economic situation deteriorated in all countries surveyed (chart 1). The most optimistic assessment was obtained for Poland, which performed best during the crisis. According to the IMF World Economic Outlook, the CESEE economies will grow moderately in 2011, with real GDP growth ranging from 1.3% for Croatia to 3.8% for Poland (table 1). In 2012, real GDP growth is expected to accelerate somewhat to between

¹ Visit ceec.oenb.at for detailed results.

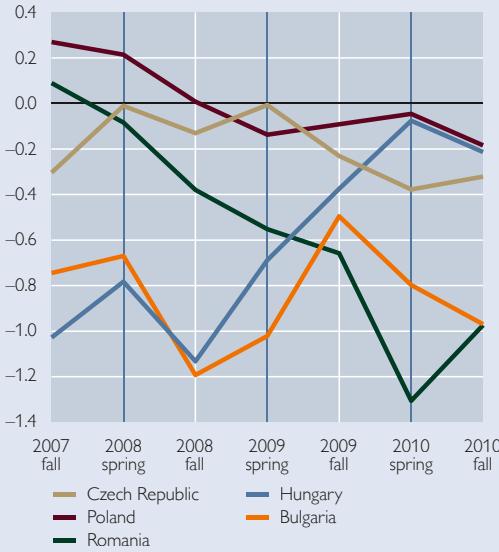
1.8% and 5.0% per annum. However, this incipient recovery has not yet fed into households' sentiment about the future economic situation of their countries. Since spring 2010, expectations have deteriorated substantially in six out of ten countries.

Chart 1

Consent to the Statement: The Economic Situation of My Country Will Improve Over the Next 5 Years

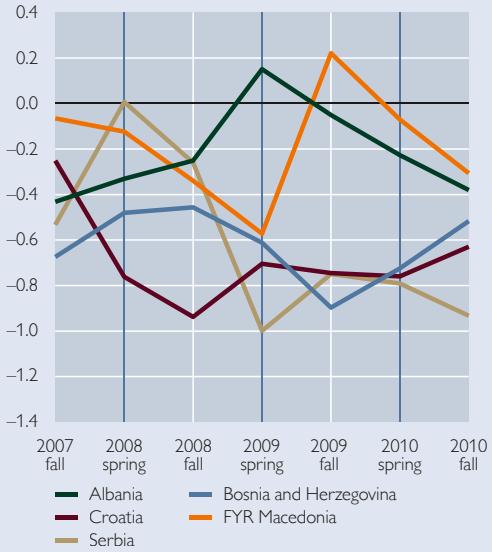
EU Member States

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 statements above on a scale from 1 (fully agree) to 6 (fully disagree). Excluding respondents who answered "Don't know" or "No answer."

The peaks observed in the forward-looking series for Hungary, Bulgaria, and FYR Macedonia in 2009 and 2010 and more recently for Bosnia and Herzegovina are probably related to parliamentary elections, but the electorate's high hopes have faded since. In Albania, the dynamics of the assessment reflected the delayed onset of the crisis. Although real GDP growth dropped from 7.7% per annum in 2008 to 3.3% in 2009, Albania performed best among its Southeastern European peers.

Table 1

Real GDP Growth

Czech Republic	Hungary	Poland	Bulgaria	Romania	Albania	Bosnia and Herzegovina	Croatia	FYR Macedonia	Serbia	
Annual change in %										
2009	-4.1	-6.7	1.7	-5.5	-7.1	3.3	-3.1	-5.8	-0.9	-3.1
2010	2.3	1.2	3.8	0.2	-1.3	3.5	0.8	-1.4	0.7	1.8
2011	1.7	2.8	3.8	3.0	1.5	3.4	2.2	1.3	3.0	3.0
2012	2.9	2.8	3.6	3.5	4.4	3.6	4.0	1.8	3.7	5.0

Source: IMF World Economic Outlook, April 2011.

Households' Financial Situation

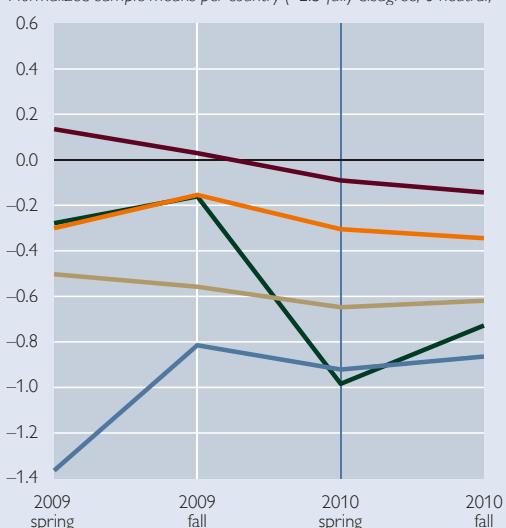
Since fall 2009, the perception of the future financial situation of individual households has followed a similar path as respondents' assessment of the general economic situation. In fall 2010, expectations were pessimistic in all countries except Albania (see chart 2). Still, respondents from Poland and FYR Macedonia only weakly objected to the statement that the financial situation of their households would get better over the next 12 months, which corresponds to expected real GDP growth rates of 3% and above for 2011 and 2012. In the remaining Southeastern European countries and Hungary, the negative assessment seems plausible against the background of elevated unemployment levels and shrinking private consumption in 2010. Furthermore, in Serbia, Romania and Hungary, income declined in particular for public sector employees as a result of IMF consolidation packages. Other factors that might explain households' dampened expectations are the recent rise in inflation and the fact that indebted households will have to continue deleveraging.

Chart 2

Consent to the Statement: I Expect the Financial Situation of My Household to Get Better Over the Next 12 Months

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 statements above on a scale from 1 (fully agree) to 6 (fully disagree). Excluding respondents who answered "Don't know" or "No answer."

Studies

The Economic Transmission of Fiscal Policy Shocks from Western to Eastern Europe

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This paper studies the transmission of a foreign fiscal policy shock (assumed to be generated in Germany) to key macroeconomic variables in five Central and Eastern European economies (CEE-5). We use quarterly data from 1995 to 2009 and estimate an open economy structural vector autoregressive (SVAR) model identified by imposing reasonable restrictions on contemporaneous responses in the system. Our model is able to identify well-known episodes of fiscal policy action in the countries under review. We find that a foreign fiscal shock affects domestic fiscal variables and vice versa, which highlights the importance of cross-country coordination of fiscal policies within the EU. All the CEE-5 respond to a fiscal expansion abroad with fiscal easing at home (more strongly on the public spending than on the revenue side). We find negative cross-border fiscal spillovers for Slovenia, the Czech Republic and Slovakia, while in Poland and Hungary, output reacts positively to a fiscal expansion in Germany. For domestic fiscal shocks, which we also explore, we find Keynesian responses in Hungary and Slovakia, while non-Keynesian responses are present in the Czech Republic, Poland and Slovenia. Our results imply that “one-size-fits-all” policy recommendations would be too simplistic for the CEE-5; a deeper understanding of the reasons for cross-country differences in response to fiscal shocks is required to be able to provide adequate information to policymakers in these countries.

JEL classification: C54, E62, H2, H5, P2

Keywords: fiscal policy, cross-border spillovers, fiscal multiplier, foreign shock, structural vector autoregression, Central and Eastern Europe, Germany

1 Introduction and Motivation

The 2008–09 “Great Recession” has sparked renewed interest in fiscal policy. The extraordinary intensity of the downturn forced the implementation of sizeable fiscal stimulus packages at the beginning of the crisis. Headline fiscal positions strongly deteriorated (not only due to discretionary fiscal expansion but also, if not mainly, due to the operation of automatic stabilizers). A few EU countries, especially those that had maintained elevated public debt levels already in 2008, experienced severe sovereign solvency pressures in 2010. These problems heralded a new stage of the crisis, during which the original private sector solvency problems eventually spilled over to the public sector. As a consequence, all EU countries are currently confronted with the challenge to implement decisive fiscal action to consolidate their budgets, a process that will have to continue in most countries until 2012–13.

Given the scale of both the fiscal stimulus packages during this crisis and the ensuing austerity measures, the obvious question that arises is how effective can fiscal policy actually be in mitigating business cycle fluctuations, especially within the financial and economic architecture of today’s highly interdependent world.

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² Part of the research for this paper was conducted when Markus Eller was visiting the Bank of Finland’s Institute for Economies in Transition (BOFIT) between April 26 and May 14, 2010. The hospitality of BOFIT is gratefully acknowledged. The visit took place under the regular exchange and cooperation framework between the OeNB’s Foreign Research Division and BOFIT. The paper is set to appear also in the BOFIT discussion paper series. The authors thank two anonymous referees as well as Peter Backé, Fritz Breuss, Dagmar Dichtl, Laura Solanko, Doris Ritzberger-Grünwald and Julia Wörz for their valuable comments. Opinions expressed in this paper do not necessarily reflect the official viewpoint of the Oesterreichische Nationalbank, the Bank of Finland, or the Euro-system.

Generally speaking, fiscal multipliers are smaller if there are considerable leakages (i.e. parts of the stimulus are saved, e.g. for precautionary reasons, or spent on imports). Multi-country models show that fiscal multipliers are the smaller, the more open an economy is (see Spilimbergo et al., 2009). Thus it is important to examine not only the impact of domestic fiscal shocks³ on output, but also to study the channels and the extent of spillovers from fiscal shocks generated in major foreign trading and financial partner countries.

Empirical evidence on the economic effects of domestic fiscal shocks is mostly available for high-income OECD countries (e.g., Blanchard and Perotti, 2002, for the U.S.A.; Perotti, 2004, for the U.S.A., the U.K., Australia and Germany; Giordano et al., 2007, for Italy; de Castro and Hernández de Cos, 2008, for Spain), while there is only scant, mostly preliminary, evidence for the economies in emerging Europe (e.g., Lendvai, 2007, for Hungary; Benčík, 2009, for Slovakia; Mirdala, 2009, for the Czech Republic, Hungary, Poland, Slovakia, Bulgaria and Romania; or Ponomarenko and Vlasov, 2010, for Russia). Moreover, there have been only limited empirical attempts to examine the transmission of a foreign fiscal shock to domestic macroeconomic variables in Europe (among others, Beetsma et al., 2006, or Badarinza, 2008).

This paper focuses on five Central and Eastern European economies (the Czech Republic, Hungary, Poland, Slovakia and Slovenia, in the following referred to as CEE-5)⁴ and develops a model that allows not only to examine the impact of domestic fiscal shocks on key macroeconomic variables, but also to check the response of domestic variables to a fiscal shock in an important foreign economic partner country. We chose Germany to be this country, first, because the CEE-5 have strong trade relations with Germany (on average, about 30% of total CEE-5 exports go to Germany) and second, because over the past few years, Germany implemented considerable discretionary fiscal measures,⁵ which potentially induced substantial economic spillovers to the CEE-5.

Learning more about such spillovers is also important given that the crisis left only limited room for sizable stimulus packages in the CEE-5 (Hungary even had to implement pro-cyclical consolidation measures amounting to more than 4% of GDP, according to the OECD, 2009) owing to a predominantly pro-cyclical fiscal stance during the pre-crisis boom period and liquidity constraints at government debt markets in many of these countries (see Eller, 2009). It is also interesting to examine what types of responses can be observed in the CEE-5 for the period from 1995 to 2009: Did these countries respond to a fiscal expansion in Germany

³ A fiscal shock is defined as an unexpected, random discretionary change in government spending or taxation. Our approach assumes symmetry of results, i.e. we do not impose different reactions to fiscal expansions and to fiscal contractions in our setting. Thus, any argument put forward for a fiscal expansion holds inversely also for a fiscal contraction (see also our qualifications in section 4.2).

⁴ Other countries from Central, Eastern and Southeastern Europe could not be included due to the lack of satisfactory fiscal data.

⁵ According to the European Commission (2009), the cumulative 2009–10 net effect of the German fiscal stimulus package is estimated to amount to 1.9% of 2008 GDP (with revenue-decreasing effects outweighing expenditure-increasing ones, and about 70% of the stimulus occurring in 2009 and the rest in 2010). The same study also estimated the size of the corresponding stimulus packages in the CEE-5 (except for Hungary, which implemented a pro-cyclical consolidation package, and Slovakia, which provided a negligibly small stimulus package) to be 1.5% of GDP in Poland and 0.5% of GDP in the Czech Republic and Slovenia respectively.

with fiscal easing, or did they count on positive cross-border fiscal multipliers in their consolidation efforts?

The structure of this paper is as follows: Section 2 presents the channels of the cross-country transmission of fiscal shocks and describes the development of an open economy structural vector autoregressive (SVAR) model with both foreign and domestic fiscal shocks. This model requires a detailed documentation of the restrictions imposed on contemporaneous responses in the system, which are necessary to achieve identification. Section 3 discusses the preparation of the data series and the empirical specification of the SVAR model. The estimation results and some robustness checks are described in section 4. Section 5 summarizes the basic findings and highlights their implications for policymaking and further research.

2 Theory and Methodology

2.1 Cross-Country Transmission of Fiscal Shocks

Conceptually, the literature in this area relies on the framework of a two-country Mundell-Fleming model with flexible prices to distinguish at least three channels for the cross-country transmission of fiscal shocks (see Beetsma et al., 2006, or Badarinza, 2008).

First, a fiscal expansion in a foreign economy increases aggregate demand and thus also the demand for domestic goods and services through the *trade channel*, which, in turn, has a positive effect on domestic output.

Second, a foreign fiscal expansion affects domestic output via terms-of-trade changes through the *real exchange rate channel*. In the foreign economy, prices increase after a fiscal expansion due to higher aggregate demand; and they are expected to increase more strongly than world market prices since the latter are typically not affected one-to-one by the fiscal action of a single country. As a consequence, the terms of trade of the foreign country improve as the real effective exchange rate appreciates and imports increase (while exports decrease). The domestic economy benefits from this situation in terms of higher output as long as it is a net exporter to the foreign economy.

Third, the *interest rate channel* captures the impact of a rising interest rate in a foreign economy after a fiscal expansion; this interest rate rise could either be due to a non-accommodative monetary tightening to keep inflation in check or due to the pressure on investments induced by higher aggregate demand. The higher foreign interest rate could then translate into higher domestic interest rates (with a negative impact on domestic output), simply due to the fact that a higher foreign interest rate attracts more capital imports from the domestic economy, reducing domestic exchange reserves and thus also domestic money supply.

The specific sign and size of the cross-border fiscal multiplier depend on the interaction between these different channels. The overall impact of a fiscal expansion abroad on domestic output is expected to be positive if the trade and exchange rate effects outweigh the negative interest rate effect. Certainly, the actual cross-border effect depends on a number of country-specific characteristics, such as the degree of bilateral trade integration, the structure of bilateral trade balances, the exchange rate system, the size of the country where the expansion is generated, the degree

of capital mobility, or the behavior of the central bank.⁶ This theoretical ambiguity calls for answers from an empirical investigation. Using the methodological framework described below, we investigate how domestic macroeconomic variables respond to a foreign fiscal impulse. While the interest rate channel can be explicitly considered in this framework, the trade channel and the exchange rate channel can be addressed only implicitly (via the direct domestic output response) given that we do not include trade volumes in our setting to keep the model tractable.⁷

2.2 Open Economy Structural VAR Model with Fiscal Shocks

To get information on the size of fiscal multipliers, a structural vector autoregressive (SVAR) model in the tradition of Blanchard and Perotti (2002) has frequently been implemented. Building on this approach, we develop an open economy SVAR model accounting for both foreign and domestic fiscal shocks, imposing contemporaneous restrictions to achieve identification.

We consider the structural form of a vector autoregressive (VAR) model:

$$A_0 x_t = A(L)x_{t-1} + B\varepsilon_t, \quad (1)$$

where A_0 is the $m \times m$ matrix of contemporaneous effects, $A(L)$ represents the impact of lagged effects (matrix lag operator notation⁸) and B is an $m \times m$ structural form parameter matrix. Our $m \times 1$ vector of endogenous variables x_t consists of the following variables: foreign fiscal balance (f_t^*),⁹ domestic government purchases of goods and services (g_t), domestic net taxation (τ_t), domestic output (y_t), nominal effective exchange rate (e_t), domestic inflation (π_t) and a short-run interest rate (i_t), i.e. $x_t = (f_t^* \ g_t \ \tau_t \ y_t \ e_t \ \pi_t \ i_t)$. The structural shocks, denoted by ε_t , are assumed to be linearly related to the structural model residuals with zero mean and a diagonal variance-covariance matrix, i.e. $\varepsilon_t \sim \left(0, \Sigma_\varepsilon = \text{diag}\{\sigma_i^2\}\right)$. The corresponding reduced form VAR model is given by:

$$x_t = R(L)x_{t-1} + u_t, \quad (2)$$

where $R(L) = A_0^{-1}A(L)$ and $u_t = A_0^{-1}B\varepsilon_t$. Using this relation between reduced form residuals and structural shocks, we can now specify the model for innovations $A_0 u_t = B\varepsilon_t$ as follows:

⁶ Simulations by Breuss (2006), applying both a calibrated two-country Mundell-Fleming model with flexible prices and the Oxford Economic Forecasting World Model, have shown that the cross-border effect will be bigger if the fiscal shock is generated in a large economy, if there is a fixed exchange rate system (as in this case the output increase is not reduced by an appreciation, which would be implemented in a flexible exchange rate system to counteract increasing domestic prices) or if the central bank pursues an accommodative policy.

⁷ Even if we were able to include trade-related variables, it would be difficult to empirically disentangle the exchange rate channel from the trade channel (see Badarinza, 2008) as, in the end, both of them affect output via changes in trade volumes. Moreover, we do not incorporate a real exchange rate but a nominal one, which enters into a type of arbitrage equation for the foreign exchange market (in line with Dungey and Fry, 2009, and Kožluk and Mehrotra, 2009).

⁸ $A(L)x_{t-1} = A_1 x_{t-1} + A_2 x_{t-2} + \dots + A_q x_{t-q}$, where A_j are $m \times m$ matrices for each $j = 1, \dots, q$.

⁹ Note that the foreign fiscal balance is scaled to GDP and inversely defined to interpret an increase in f_t^* as a fiscal expansion, i.e. $f_t^* = (g_t^* - \tau_t^*)/y^*$. We do not distinguish between a spending and a net tax shock in the foreign country to keep the model tractable.

$$\begin{pmatrix}
 1 & 0 & 0 & 0 & 0 & 0 & 0 \\
 0 & 1 & 0 & 0 & 0 & 0.5 & 0 \\
 0 & 0 & 1 & -0.8 & 0 & -0.5 & 0 \\
 -\alpha_{yf^*} & -\alpha_{yg} & -\alpha_{y\tau} & 1 & 0 & 0 & 0 \\
 \alpha_{ef^*} & -\alpha_{eg} & -\alpha_{e\tau} & -\alpha_{ev} & 1 & -\alpha_{e\pi} & -\alpha_{ei} \\
 0 & 0 & 0 & -\alpha_{\pi y} & 0 & 1 & 0 \\
 -\alpha_{if^*} & -\alpha_{ig} & -\alpha_{i\tau} & 0 & -\alpha_{ie} & -\alpha_{i\pi} & 1
 \end{pmatrix} =
 \begin{pmatrix}
 u_t^{f^*} \\
 u_t^g \\
 u_t^\tau \\
 u_t^y \\
 u_t^e \\
 u_t^\pi \\
 u_t^i
 \end{pmatrix} \quad (3)$$

$$\begin{pmatrix}
 \beta_{f^* f^*} & 0 & 0 & 0 & 0 & 0 & 0 \\
 \beta_{gf^*} & \beta_{gg} & 0 & 0 & 0 & 0 & 0 \\
 \beta_{\tau f^*} & \beta_{\tau g} & \beta_{\tau\tau} & 0 & 0 & 0 & 0 \\
 0 & 0 & 0 & \beta_{yy} & 0 & 0 & 0 \\
 0 & 0 & 0 & 0 & \beta_{ee} & 0 & 0 \\
 0 & 0 & 0 & 0 & 0 & \beta_{\pi\pi} & 0 \\
 0 & 0 & 0 & 0 & 0 & 0 & \beta_{ii}
 \end{pmatrix} =
 \begin{pmatrix}
 \varepsilon_t^{f^*} \\
 \varepsilon_t^g \\
 \varepsilon_t^\tau \\
 \varepsilon_t^y \\
 \varepsilon_t^e \\
 \varepsilon_t^\pi \\
 \varepsilon_t^i
 \end{pmatrix},$$

with the innovations (reduced form residuals) that may be correlated, i.e. for any k,l -pair of endogenous variables, we could have $\text{cov}(u_t^k, u_t^l) \neq 0$, and the structural shocks that are uncorrelated, i.e. $\text{cov}(\varepsilon_t^k, \varepsilon_t^l) = 0$. A_0 contains the contemporaneous responses of variable k to an innovation in variable l , and α_{kl} can thus be interpreted in terms of an elasticity. For the fiscal variables, α_{kl} captures both the automatic response (automatic stabilizers) and the systematic discretionary response to innovations in the other system variables. B , on the other hand, contains the contemporaneous responses of variable k to a structural (exogenous) shock in variable l . The structural fiscal shocks $(\varepsilon_t^{f^*}, \varepsilon_t^g, \varepsilon_t^\tau)$ represent the random discretionary shocks to fiscal policies (for this type of classification see Perotti, 2004).

2.3 Restrictions on Contemporaneous Responses in the System to Achieve Identification

In line with the order conditions by Breitung et al. (2004), $2m^2 - m(m+1)/2$ restrictions have to be imposed to achieve just-identification of equation (3). In our case $m = 7$, i.e. we need a total of 70 restrictions on A_0 and B . One can see in equation (3) that we have actually imposed 73 restrictions – the validity of this over-identifying situation will be tested later on by means of a likelihood ratio test. The restrictions and the underlying economic assumptions are discussed in detail below.

2.3.1 Restrictions on Fiscal Responses

In our model the domestic economy is assumed to be small and open (CEE country) and strongly integrated with a large foreign economy (euro area, Germany as

proxy as discussed already in the introduction) so that a fiscal shock in the foreign country could have a considerable impact on the domestic economy (but not necessarily the other way round). We assume that the large foreign country is a “fiscal leader” and does not react – at least not in the same quarter – to changes in variables of the domestic economy. Consequently, $\alpha_{f^*l} = 0, \forall l \neq f^*$ in the first row of equation (3). A similar reasoning is provided by Kožluk and Mehrotra (2009) to model the spillover of a monetary policy shock in a large foreign country (China) to small and open trading partner economies (Southeast Asia).

The second and third rows in equation (3) describe the domestic fiscal responses to innovations in the other system variables. We build on a series of closed economy fiscal SVARs that have been implemented for a small but growing sample of OECD countries using the identification approach developed by Blanchard and Perotti (2002). The key to identification here is the observation that it takes typically more than a quarter for fiscal policymakers to respond to, say, an output shock because of decision lags. The systematic discretionary response contained in α_{kl} can therefore be set to zero when using quarterly data. As a result, we are left with the automatic response only, for which we can use available external information or reasonable assumptions on the elasticity of public spending and net taxes.

Let us first identify the structural fiscal shocks on the right-hand side of equation (3). Like Giordano et al. (2007), who also investigated an SVAR with three fiscal variables, we achieve a Cholesky-type identification by imposing assumptions on the ordering among the structural fiscal shocks. As mentioned before, we assume that the large foreign country is the fiscal leader, and thus the decision on the foreign fiscal balance “comes first.” That is, $\beta_{f^*g} = \beta_{f^*\tau} = 0$, while both β_{g^*g} and $\beta_{\tau^*\tau}$ are expected to be different from zero, allowing domestic fiscal policy to react contemporaneously to a foreign fiscal shock. We further assume that spending decisions by the government are taken before taxes are set, i.e. $\beta_{gt} = 0$ while $\beta_{\tau g} \neq 0$.

In a second step we can now make additional assumptions on the elasticities of the domestic fiscal variables with respect to the macroeconomic variables in the system (relevant for the restrictions in matrix A_0 and to be interpreted as automatic response of fiscal variables to innovations in the macroeconomic variables):

- *Output elasticity of public spending:* Under the EU’s fiscal surveillance framework, the European Commission (2004) estimates budgetary elasticities of the EU Member States on a regular basis. According to these estimates, a 1% decline in GDP drives up government spending on average by nearly 0.1% in the CEE-5. The lion’s share of this pretty inelastic response of public spending to output can be attributed to unemployment benefits, which are not included in our spending measure but enter with a negative sign into the net tax variable (see also section 3.1). Our spending variable consists of the sum of government consumption and government gross fixed capital formation, of which public wages account for, on average, nearly 50%. Typically, public wages show a certain inertia in adjusting to business cycle fluctuations. For example, a temporary output decline does not induce immediate lay-offs of public sector employees. Given all these facts, we feel safe to assume that $\alpha_{gy} = 0$.
- *Output elasticity of net taxes:* Existing fiscal SVAR investigations for various OECD countries mainly follow the approach of Blanchard and Perotti (2002) and compute elasticities for different types of taxes and transfers. Weighted

averages are then calculated over these sub-elasticities to get α_{ty} . The following tax revenue categories are distinguished: personal income taxes, corporate income taxes, indirect taxes (e.g. VAT), social security contributions and all other current and capital transfers that government receives (e.g. property or inheritance taxes). The literature uses a mixture of assumptions and estimations to get the elasticity for each of these categories. For instance, de Castro and Hernández de Cos (2008) regress the growth rate of each tax base on GDP growth and take the estimated slope coefficient as the output elasticity.¹⁰ Perotti (2004) and Giordano et al. (2007) employ similar regressions but also use some simplifying assumptions, such as an elasticity of one for indirect taxes, an elasticity of zero for corporate income taxes if they are collected with a lag longer than a quarter (e.g. in Germany), an elasticity of zero for property and inheritance taxes as they are likely to be inelastic to output at a quarterly frequency, or an elasticity of -0.2 for transfers.¹¹ The resulting value for α_{ty} is 0.5 in Italy, 0.62 in Spain, 0.76 in the U.K., 0.92 in Germany and 1.85 in the U.S.A. In the case of Germany, the calibration of α_{ty} is primarily determined by the assumption of unit-elastic indirect taxes as the estimated output elasticity of personal income taxes is statistically not different from zero (see Perotti, 2004). In this paper we assume for the CEE-5 a benchmark elasticity of $\alpha_{ty} = 0.8$. This is supported by the European Commission's estimates of the output elasticity of total government revenues, ranging from 0.88 in Slovakia to 1.02 in Hungary and Slovenia (reported in Eller, 2009), and mildly corrected downward because of the small output elasticity of transfers. Furthermore, the share of indirect taxes in total general government revenues is comparatively high in the CEE-5 (on average clearly above 30%), which also backs a value for α_{ty} that is not too far away from that of Germany.

- *Price elasticity of public spending:* Following Perotti (2004), we can distinguish the wage component from the non-wage component of public purchases of goods and services. On the one hand, public wages may be indexed to inflation; however, it is quite unlikely that this indexation occurs within a quarter. This implies a quarterly elasticity of real public wages to inflation of -1, i.e. in real terms (we are using real-valued variables in the estimations) public wages shrink proportionally to the increase in inflation. On the other hand, we can assume that a considerable part of the non-wage component of public spending is indexed to the price level within a quarter, implying an elasticity of zero in real terms for these spending categories. Given that in the CEE-5 public wages account for nearly 50% of the employed spending measure (except for the Czech Republic and Slovakia, for each of which a share of about 30% applies), Perotti's benchmark of $\alpha_{gr} = -0.5$ provides a reasonable upper bound, which we use in our baseline specification, assuming that the whole non-wage component is indexed to the price level within a quarter. At the other extreme – under the assumption that there is no quarterly price indexation for

¹⁰ However, besides GDP growth, only a time trend is included as explanatory variable, making the estimations susceptible to omitted variable biases. This is admittedly difficult to resolve given a considerable degree of model uncertainty in these estimations.

¹¹ The number is not higher as, basically, only unemployment benefits respond to output changes within a quarter, and they account only for a small share in total primary expenditures.

all spending categories – we get $\alpha_{g\pi} = -1$ as a lower bound. Thus, a range of parameters for $\alpha_{g\pi} \in [-1, -0.5]$ can be considered; the impact of different calibrations will be checked in the robustness section.

- *Price elasticity of net taxes:* Existing fiscal SVAR studies calculate $\alpha_{\pi\pi}$ analogously to α_{yy} by distinguishing between different tax categories. While the elasticity for personal income taxes and social security contributions is typically estimated ($\alpha_{dirtax,\pi}$), some simplifying assumptions are used for the other categories, such as a price elasticity of zero for real corporate income taxes and for real indirect taxes (corresponds to unitary elasticities in nominal terms). For transfers, a similar argument as for public wages is applied, namely a lack of quarterly price indexation and thus a price elasticity of -1 in real terms. As a result, the literature gets a positive value for $\alpha_{\pi\pi}$, which is largely driven by the negative transfer elasticity and is 0.78 in Spain (de Castro and Hernández de Cos, 2008), 0.87 in Germany, 1.21 in the U.K. and 1.25 in the U.S.A. (Perotti, 2004). Given the stated assumptions, $\alpha_{\pi\pi} = 0$ if $\alpha_{dirtax,\pi} = -1$, $\alpha_{\pi\pi} = 1$ if $\alpha_{dirtax,\pi} = 0$, and $\alpha_{\pi\pi} > 1$ if $\alpha_{dirtax,\pi} > 0$. In this paper we start with the benchmark of $\alpha_{\pi\pi} = 0.5$ (i.e. $\alpha_{dirtax,\pi} = -0.5$) and then try different calibrations within reasonable ranges (see section 4.2).
- *Exchange rate elasticities of fiscal variables:* We set $\alpha_{ge} = \alpha_{te} = 0$ because the contemporaneous response of domestic fiscal variables to exchange rate innovations is deemed to be negligible. This assumption is also backed by Dungey and Fry (2009) – one of the rare papers that include exchange rates into a fiscal SVAR to identify jointly fiscal and monetary shocks (for New Zealand).
- *Interest rate elasticities of fiscal variables:* We set $\alpha_{gi} = \alpha_{ti} = 0$ because our revenue and expenditure data do not include property income or interest payments on public debt (in line with Perotti, 2004).

2.3.2 Restrictions on Non-Fiscal Responses

In the fourth row of equation (3) we let real GDP respond contemporaneously to the fiscal variables, while output does not respond to prices, interest rates and exchange rates within a quarter. For the former assumption, one could argue that it takes more than a quarter for fiscal policy to affect the economy because of implementation lags (argument put forward by Fatás and Mihov, 2001). However, as Perotti (2004) emphasized, government spending is a component of GDP, and if we set α_{yg} to be zero, we would implausibly assume that an increase in public spending crowds out private GDP one-to-one. A similar argument can be put forward for net taxes, as they are a component of disposable income, and for the foreign fiscal balance, if we assume that a foreign fiscal shock has an immediate effect on domestic exports, which are, again, a component of GDP.

In rows five and seven of equation (3) we treat the interest rate and the exchange rate as “fast” financial variables that immediately react to innovations in the other system’s variables, with one notable exception: $\alpha_{iy} = 0$. This restriction is, as in the case of the fiscal policy response, backed by the assumptions that it takes more than a quarter for the central bank to react to an output shock due to decision lags or due to the lack of real-time output data (therefore the systematic discretionary response is zero) and the automatic response (say, a reduction of interest rates due to less credit demand in the case of a slowing economy) does not immediately materialize as commercial banks set their interest rates more in line with

central bank rate adjustments than in response to short-run credit demand fluctuations.

Finally, in row six we apply a “sticky” Calvo pricing scheme,¹² analogously to Kožluk and Mehrotra (2009), and assume that inflation does not respond within a quarter to innovations in the other system’s variables, except for a non-zero response to output that can be motivated by automatic price markups in the case of soaring aggregate demand.

3 Data and Empirical Specification

3.1 Data Issues

There is a broad discussion in the literature whether different types of public expenditures and revenues have a different impact on economic output. This discussion is based on, *inter alia*, a branch of endogenous growth theory that distinguishes between “productive” and “non-productive” public spending as well as “distortionary” and “non-distortionary” taxation and assigns a different long-run growth impact to these categories (see, e.g., Devarajan et al., 1996). Investigations for Hungary (Horváth et al., 2006, and Lendvai, 2007) show that the composition of domestic fiscal shocks is particularly important when it comes to evaluating the effects of fiscal policy.

Given that we have only a limited degree of freedom in our model due to comparatively short data series for the CEE-5, we chose to address these composition arguments by a two-way breakdown of the government budget and use a narrow definition of government spending and taxation to fit more clearly the direct impact of a fiscal action on the use of resources by the private sector (in line with Perotti, 2004). We argue that public spending on goods and services has effects different from those of transfers: Only the former affects directly the use of resources. Hence, our variable for government purchases of goods and services (g) consists of government consumption plus government investment, while transfers are subtracted from government revenues to get our variable for net taxes (τ). The inclusion of net taxes should capture the net impact on the private sector and is supported by the view that in the short and medium run fiscal policy operates mostly via a demand channel. The foreign fiscal balance is also constructed according to these definitions and scaled to GDP.

For the fiscal variables we use quarterly budgetary data from the Quarterly Non-Financial Accounts for General Government (QNFAGG) of Eurostat’s Government Finance Statistics. Several characteristics of this dataset are of relevance for our empirical investigation. First, compilation practices differ across countries and across different expenditure and revenue items (for an overview, see European Communities, 2006). Basic data are transformed by Eurostat to fully comply with the European System of Accounts 1995 (ESA 95) and to ensure comparability between countries. Second, raw data series are collected at different frequencies. While tax data are available from tax offices at monthly frequency, a few items are missing at quarterly frequency (e.g. public wages in kind) and are estimated based on previous years’ data or on budget data. Third, adjustments are implemented in the compiled data to deliver satisfactory accrual figures (e.g. cash-

¹² Price stickiness helps to obtain an increase in the real interest rate that also brings about a monetary contraction.

based tax data are time-adjusted with a one-month delay to obtain accrual data). The use of accrual figures (an expense is recorded when goods are delivered or services are rendered) is important for our setting as they capture the effective economic response to a fiscal shock better than cash data. Fourth, QNFAGG data have been available for the CEE-5 only since 1999, and thus we use annual figures for the years 1995 to 1998 and the seasonal pattern of the years 1999 to 2009 to interpolate quarterly values for $j = 1995, \dots, 1998$, i.e.

$$F_{ij} = F_j \cdot \sum_{k=j+1}^T \frac{F_{ik}}{F_k} \frac{1}{T-j}, \quad (4)$$

with F representing the respective fiscal variable, i denoting quarters and $T = 2009$. Finally, concerning the overall quality of QNFAGG data for the CEE-5, the quality report of Eurostat (2008) confirms considerable advances (compared to 2006) with regard to the consistency between quarterly and annual data, the timeliness and coverage of data, or the estimation of accrual data on a quarterly basis. Further improvements are requested for budgetary revisions, whose impact should be reduced further.

In the estimations we use quarterly data (from the first quarter of 1995 to the fourth quarter of 2009) that are real-valued, seasonally adjusted and denominated in local currency. Output, fiscal variables and the nominal effective exchange rate are expressed in logs. The fiscal variables are available in nominal terms only and so we deflated them by using the CPI. Both output and fiscal variables show a strong seasonal pattern; hence they were seasonally detrended by applying the Tramo-Seats procedure (also used by, among others, Giordano et al., 2007). Table A.1 in the appendix describes the calculation of the variables and their data sources in detail.

3.2 Empirical Specification of the Model

The reduced form VARs are estimated by ordinary least squares in levels form, allowing cointegration between the variables. The choice of lag length for the models reflects the use of quarterly data and a rather short estimation sample. We also consider the results from misspecification tests, in particular in order to avoid residual autocorrelation. The resulting lag lengths amount to 2 in the case of the Czech Republic, Hungary, Poland and Slovenia, and to 3 for Slovakia. All models include a constant and a linear trend as deterministic terms.¹³ The estimation samples for the individual economies are as follows: Q1 1995 to Q4 2009 for the Czech Republic, Hungary and Poland, and Q1 1996 to Q4 2009 for Slovakia and Slovenia.

The structural form VARs are then estimated by maximum likelihood and a scoring algorithm, using the estimated variance-covariance matrix from the reduced form VAR (see Breitung et al., 2004).¹⁴ Attaining convergence is compli-

¹³ One constant only is included in the case of Poland to attain convergence in the estimation of the structural form coefficients. A shift dummy variable is also included in the cases of Poland, Slovenia and Slovakia, taking the value 1 from Q2 2000 to Q4 2000 and 0 otherwise in order to deal with residual outliers (due to the selling of UMTS licenses in Germany in this period, which had a considerable non-discretionary one-off effect on the German fiscal balance).

¹⁴ For the SVAR estimation we use the software JMUlti, developed by Lütkepohl and Krätsig (2004), downloadable from <http://www.jmulti.de>.

cated in our system due to the relatively large number of variables in relation to the sample size. A slight variation of the specification across countries helped to resolve this issue. In the cases of Poland, Slovakia and Slovenia we smoothed the domestic fiscal variables using four-quarter moving averages to account for short-term volatility, which was not fully eliminated by the Tramo-Seats seasonal adjustment procedure. Further, in the case of Poland, the foreign fiscal shock is specified as a shock to the primary general government fiscal balance-to-GDP ratio.

The validity of the three overidentifying restrictions is tested by a likelihood ratio test. The overidentifying restrictions are rejected at a 5% significance level only in the case of Slovenia.¹⁵ The impact of structural fiscal shocks is evaluated by impulse responses. In order to account for parameter uncertainty, we use Hall percentile 95% confidence intervals, obtained by bootstrapping methods with 1,000 replications (see Benkowitz et al., 2001). As our main interest is in the long-run impact of fiscal shocks, we examine the accumulated impulse responses over time.

4 The Economic Effects of Fiscal Shocks

4.1 Baseline Results

In this section we analyze the effects of fiscal shocks implied by the model estimates. The structural VAR approach allows the empirical assessment of many potential links between macroeconomic variables, but in this study we concentrate on the reactions to structural fiscal shocks, both foreign and domestic. We start by analyzing cross-country fiscal spillovers and then turn to the reaction of domestic variables to domestic fiscal shocks.

The estimated structural fiscal shocks for the CEE-5 and Germany (available from the authors upon request) reassemble well-known periods of fiscal tightening (such as in Germany in 2000 and 2007, in the Czech Republic in 2005, in Poland in 2005 and 2007, in Slovakia in 2002–03, and in Slovenia in 2002) and fiscal easing (in Germany in 2002–03 and 2005, in Poland in 2004, in Slovakia in 2000, in Slovenia in 2001, and in Hungary in 2006). In the context of the 2008–09 crisis, expansionary fiscal shocks can be observed in all these countries, except for Hungary, where the pro-cyclical fiscal consolidation is reflected by – on average – positive shocks to net taxes and negative shocks to government spending. Negative tax shocks are most pronounced in this period in the Czech Republic, while positive spending shocks predominate in both the Czech Republic and Poland.

The results in terms of how variables respond to temporary structural shocks in fiscal variables (both domestic and foreign) are presented in tables 1 to 3, charts 1 to 3 and charts 5 and 6. The tables show the cumulative reaction of each variable to each of the structural fiscal shocks of the system after two, four and eight quarters. The charts are cumulative impulse-response functions depicting the reaction of real GDP and domestic fiscal variables to temporary structural (1%) shocks in foreign and domestic fiscal variables.

¹⁵ The test statistic from the likelihood test amounts to 0.711 for Poland (*p*-value: 0.871), 2.627 (*p*-value: 0.453) for the Czech Republic, 5.038 (*p*-value: 0.169) for Hungary, 2.141 (*p*-value: 0.544) for Slovakia, and 17.584 (*p*-value: 0.001) for Slovenia. Although the results of the test for Slovenia would imply that probably we should work with a just-identified model, we decided to use the overidentified model for consistency reasons.

Table 1

Cumulative Responses to a Foreign Fiscal Shock

	Czech Rep.			Hungary			Poland			Slovakia			Slovenia			
	2	4	8	2	4	8	2	4	8	2	4	8	2	4	8	
Government spending	g	0.6	2.4*	7.8*	2.2*	6.0*	14.8*	0.6*	1.1*	1.8*	1.2	3.1*	3.9	0.3	0.3	-0.6*
Net taxes	τ	-8.1*	-12.4*	-16.2*	-0.5	-1.0	-2.0	-0.6	-1.1	-1.9	-0.4	-3.4	-11.8*	-0.5	-1.6	-3.1*
Output	y	-0.6*	-1.6*	-4.0*	-0.1	0.3	2.6	0.9*	1.3*	2.6*	-3.7*	-6.1*	-4.3*	-1.2*	-2.0*	-2.4*
Exchange rate	e	1.3*	2.3*	1.7	0.9	2.7*	6.0*	-0.9	-1.1	-1.5	-0.8	-1.9*	-2.5	0.3	0.1	-1.0
Inflation rate	π	-0.0	-0.4	-1.5*	-0.2	-0.6	-1.4	-0.8*	-1.2*	-1.7*	-0.6	-0.5	-4.3*	-0.4	-0.9*	-1.5*
Interest rate	i	0.3	0.8	1.4*	-0.3	-0.7	-1.1	-0.5	-1.4*	-2.5*	-0.4	-1.2	1.0	-0.4*	-0.5*	-0.8*

Source: Authors' estimations.

Note: This table shows the cumulative response (in %) of the endogenous variables at quarters 2, 4, and 8 after a temporary shock in the German fiscal balance-to-GDP ratio (easing of the German fiscal balance by 1% of GDP). An asterisk indicates statistical significance in the sense that the 95% Hall percentile confidence interval (obtained by bootstrapping methods with 1,000 replications) does not include a zero impulse response.

Table 2

Cumulative Responses to a Domestic Spending Shock

	Czech Rep.			Hungary			Poland			Slovakia			Slovenia			
	2	4	8	2	4	8	2	4	8	2	4	8	2	4	8	
Foreign fiscal balance	f*	0.20*	0.78*	2.10*	-0.28*	-0.62*	-1.06*	0.26	0.73*	1.73*	-0.06	-0.17	-0.42	-0.02	0.30	1.09*
Net taxes	τ	-0.01	-0.03	-0.05	0.05*	0.07*	0.06*	-0.01	-0.02	-0.05	-0.00	-0.01	-0.05	-0.01	-0.01	-0.04*
Output	y	-0.00*	-0.01*	-0.04*	0.01*	0.02*	0.01	-0.00	-0.01*	-0.02*	-0.01*	-0.01	0.00	0.01	0.00	-0.01
Exchange rate	e	0.01	0.03*	0.03*	0.03*	0.05*	0.06*	0.02*	0.03*	0.01	0.02*	0.02*	-0.00	-0.01	-0.02	-0.03*
Inflation rate	π	2.50*	2.20*	0.23	3.12*	4.64*	6.42*	2.46*	3.36*	3.82*	3.04*	1.86*	-0.01	1.45*	1.56*	1.32*
Interest rate	i	0.66*	0.51	-0.39	0.85*	1.72*	3.37*	1.47*	2.27*	2.43*	0.76*	1.18*	1.96	0.28	0.26	-0.06

Source: Authors' estimations.

Note: This table shows the cumulative response (in %) of the endogenous variables at quarters 2, 4, and 8 after a temporary 1% shock in domestic public purchases of goods and services. An asterisk indicates statistical significance in the sense that the 95% Hall percentile confidence interval (obtained by bootstrapping methods with 1,000 replications) does not include a zero impulse response.

Table 3

Cumulative Responses to a Domestic Taxation Shock

	Czech Rep.			Hungary			Poland			Slovakia			Slovenia			
	2	4	8	2	4	8	2	4	8	2	4	8	2	4	8	
Foreign fiscal balance	f*	-0.12	-0.48*	-1.55*	0.34*	0.85*	1.71*	-0.73*	-1.73*	-3.90*	0.38*	1.33*	3.20*	-0.06	-0.44*	-0.95*
Government spending	g	0.01*	0.02*	0.02	0.02*	0.03*	0.05*	0.01*	0.02*	0.04*	0.02*	0.03*	-0.01	0.01*	0.01*	0.01*
Output	y	0.00	0.01	0.03*	-0.00	-0.01	-0.01	-0.00	0.00	0.02*	-0.02*	-0.05*	-0.10*	0.01*	0.02*	0.02*
Exchange rate	e	0.01	0.01	0.01	0.01	0.01	0.02	-0.00	-0.00	0.04	-0.01	-0.02*	-0.03*	-0.00	-0.01	-0.01
Inflation rate	π	-0.01	-0.16	0.34	-0.49	-1.12*	-1.69*	0.19	0.88*	3.18*	0.88*	2.25*	2.51*	0.15	0.84*	1.46*
Interest rate	i	-0.22	-0.59	-0.90*	0.18	-0.19	-0.40	-0.04	0.43	3.00*	-1.00*	-2.42*	-5.33*	-0.12	0.38	0.77*

Source: Authors' estimations.

Note: This table shows the cumulative response (in %) of the endogenous variables at quarters 2, 4, and 8 after a temporary 1% shock in domestic net taxes. An asterisk indicates statistical significance in the sense that the 95% Hall percentile confidence interval (obtained by bootstrapping methods with 1,000 replications) does not include a zero impulse response.

We find that there are considerable feedback effects between the foreign fiscal variable and the two domestic fiscal variables. On the one hand, if Germany implements a fiscal expansion, all the CEE-5 will respond with an expansion of public purchases of goods and services (the response is particularly strong in Hungary and the Czech Republic); in Slovenia, the response is reversed after the second year of reaction (see chart 1).¹⁶ The Czech Republic and Slovakia respond with a sizeable cut in taxes and Slovenia with a fairly small one, while in Hungary and Poland net taxes do not respond to the foreign shock (see chart 2). On the other hand, our model estimates imply that the German fiscal balance responds to fiscal shocks in the CEE-5 as well (see tables 2 and 3). This result is, however, not that robust when we use alternative specifications (see section 4.2).

Fiscal shocks in Germany and the reactions in the CEE-5's GDP apparently involve both negative and positive cross-border spillovers (see chart 3). In Slovenia, Slovakia and the Czech Republic, output reacts negatively to a fiscal expansion in Germany (in Slovakia, this response is statistically significant only up to the second year after the shock). The effect is strongest in Slovakia and the Czech Republic, where after a temporary 1 percentage point shock in the German fiscal balance-to-GDP ratio real GDP contracts by 4% cumulatively over two years. In both countries, foreign fiscal expansion is accompanied by an increase in domestic government spending and interest rates,¹⁷ both of which have a negative impact on output (see also below). Thus, on the one hand, this result corroborates the view that the negative interest rate channel outweighs the potentially positive trade and exchange rate channels in these two countries. On the other hand, the negative cross-border fiscal multiplier is transmitted here also via a non-Keynesian output response to a foreign-induced domestic fiscal expansion. The interest rate channel does not play a clear-cut role in Slovenia as interest rates respond negatively to foreign fiscal expansion and there is no response of output to interest rates. However, as in the Czech Republic, the foreign fiscal expansion results in cuts in net taxes, which have a negative impact on Slovenian output.¹⁸

In Poland and Hungary, a fiscal expansion in Germany has a positive impact on domestic output (in Hungary, the impact is statistically significant only ten quarters after the shock), pointing to a more dominant role of the trade and exchange rate channels here. The positive cross-border fiscal spillover in Hungary is consistent with spending reacting positively to the foreign fiscal expansion and resulting in a positive output response. The positive transmission of a foreign fiscal expansion to Poland can also be traced back to a negative response of the interest rate (policy-mix coordination could be the reason), which, in turn, has a positive effect on output.

It could be argued that the quantitative importance of the trade channel may be related to the degree of trade integration between each one of the CEE-5 and Germany. Chart 4 presents a scatterplot showing the level of trade integration

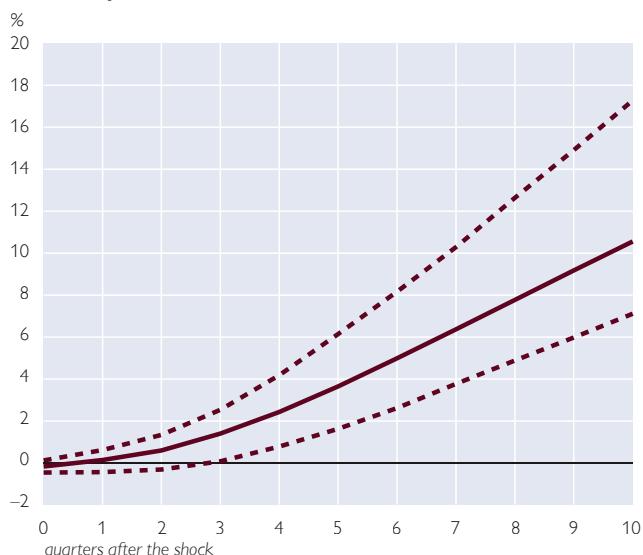
¹⁶ Such an empirical mechanism concerning the propagation of fiscal shocks in the euro area to the Polish economy is also found in Kolasa (2009), who uses a DSGE framework.

¹⁷ The positive response of the interest rate to a fiscal shock in Germany is statistically significant in Slovakia when a 90% instead of a 95% confidence interval is used.

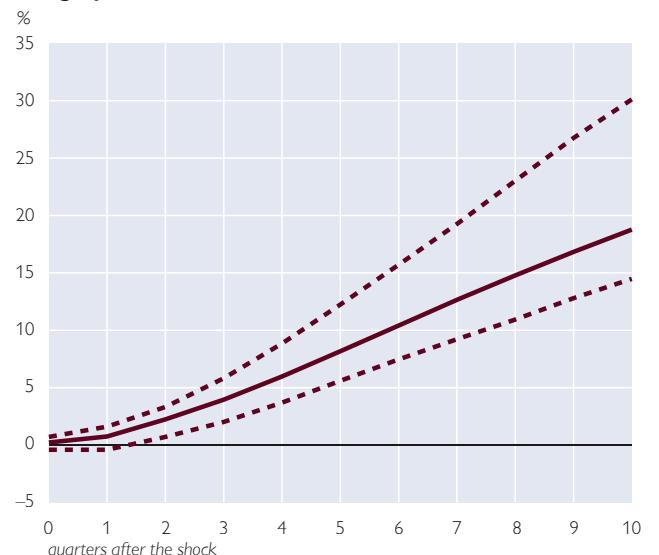
¹⁸ It should be noted that the results for Slovakia and Slovenia are based on a sample which is dominated by the period when they were not members of the euro area. Current and future interest rate reactions are expected to be strongly influenced by the currency union framework.

Response of Public Purchases of Goods and Services to a Foreign Fiscal Shock

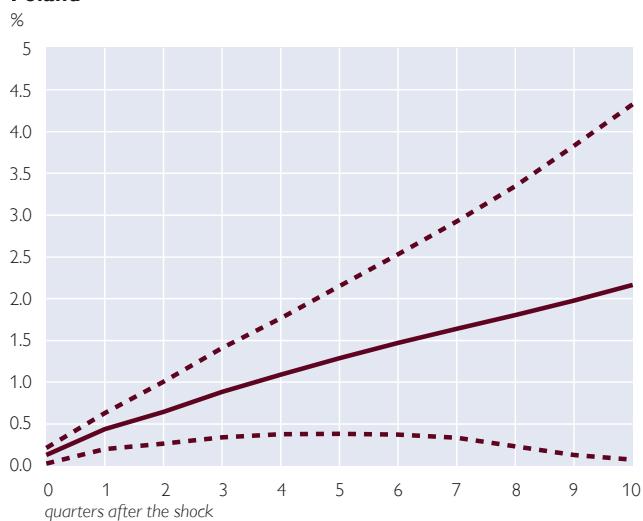
Czech Republic



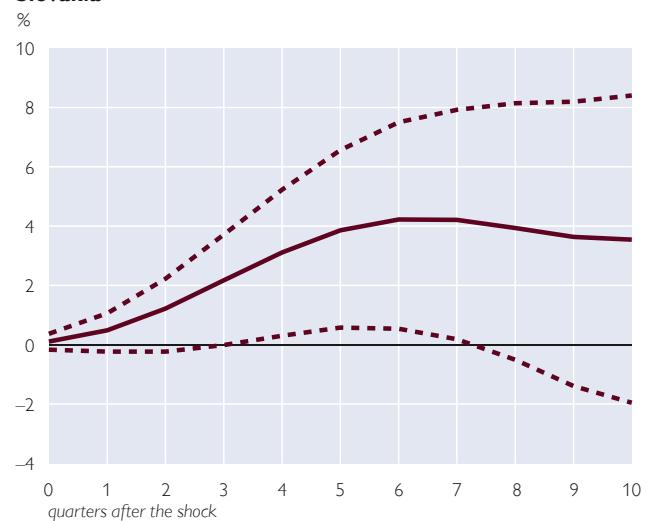
Hungary



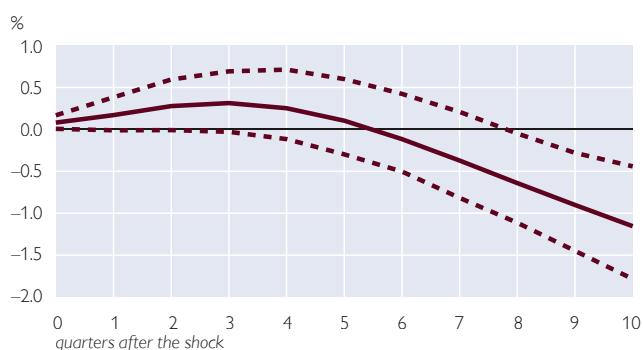
Poland



Slovakia



Slovenia

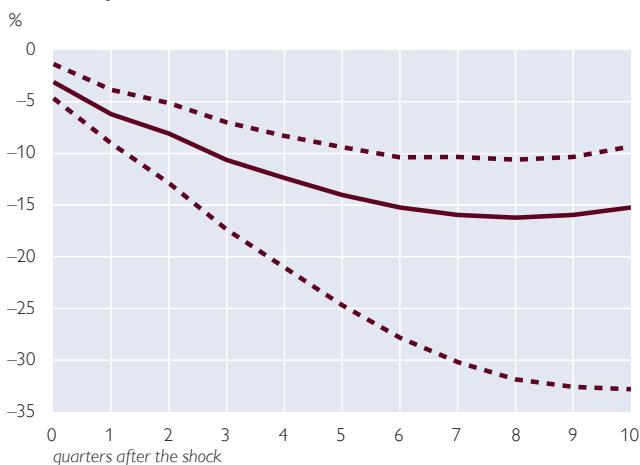


Source: Authors' estimations.

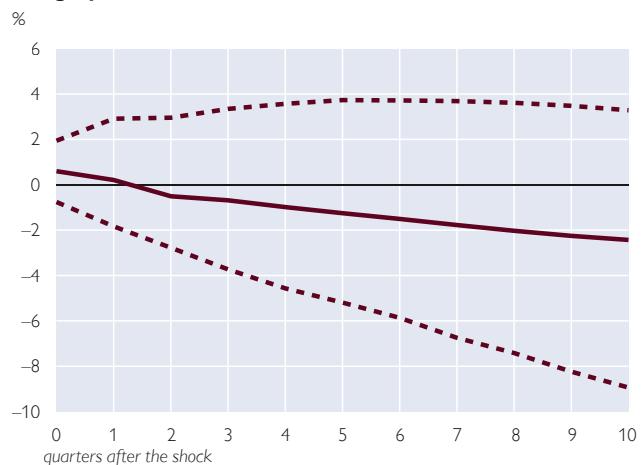
Note: The curves represent the cumulative median response of domestic government spending to a temporary shock in the German fiscal balance-to-GDP ratio (easing of the German fiscal balance by 1% of GDP) and the 95% Hall percentile confidence bands (dotted lines), obtained by bootstrapping methods with 1,000 replications.

Response of Net Taxes to a Foreign Fiscal Shock

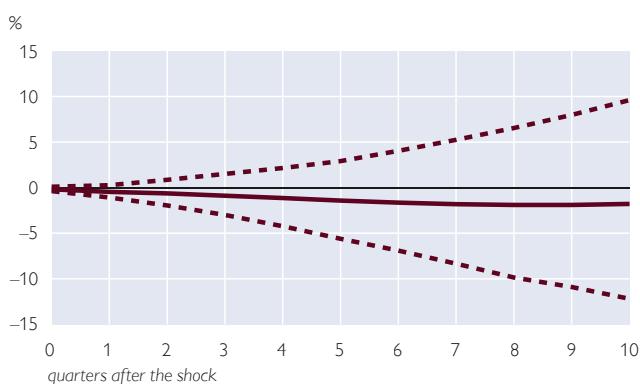
Czech Republic



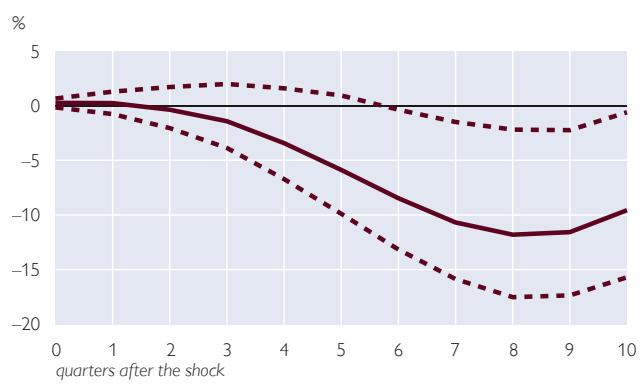
Hungary



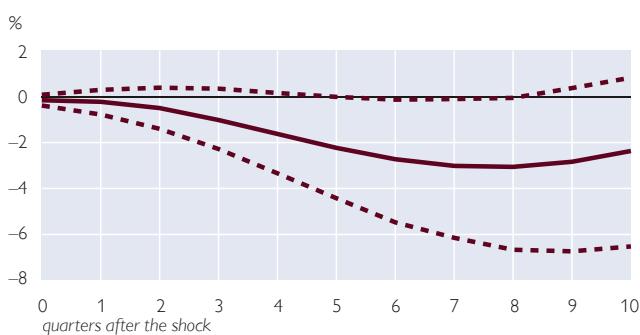
Poland



Slovakia



Slovenia



Source: Authors' estimations.

Note: The curves represent the cumulative median response of domestic net taxes to a temporary shock in the German fiscal balance-to-GDP ratio (easing of the German fiscal balance by 1% of GDP) and the 95% Hall percentile confidence bands (dotted lines), obtained by bootstrapping methods with 1,000 replications.

between the CEE-5 and Germany (average share of exports to Germany in total exports for the period from 1999 to 2009 against the (median) accumulated reaction of output to a fiscal shock in Germany after two years. The relationship between these two variables is rather weak, indicating that the role that integration plays as a factor modulating the propagation effects of foreign fiscal shocks is overcome by other transmission channels.¹⁹

The results concerning domestic fiscal multipliers show a mixture of both Keynesian and non-Keynesian responses of output to domestic fiscal expansions (see charts 5 and 6). Output in Hungary tends to increase when fiscal policymakers implement a fiscal expansion. These reactions are, however, not very precisely estimated for net taxes and only statistically significant in the first year for spending; therefore they are relatively short-lived.²⁰ We can also observe a strong Keynesian response in Slovakia for the revenue side, where real GDP contracts by 0.1% cumulatively over two years after a (temporary) 1% shock to net taxes. Output in Poland and the Czech Republic, by contrast, responds in a non-Keynesian manner to a domestic fiscal shock: It decreases after a rise in public purchases of goods and services or a cut in net taxes. This also holds for Slovenia, but only for the revenue side. Non-Keynesian output responses to fiscal shocks – in particular to fiscal contractions with the argument that fiscal tightness mitigates concerns about debt sustainability and reduces the expected tax burden on the private sector, thus stimulating private sector demand – were also found for the CEE-5 by Rzonca and Ciżkowicz (2005), for emerging market economies by Kandil and Morsy (2010) and for a sample of EU countries by Giudice et al. (2007).

Further conclusions²¹ concerning the response of fiscal policy to monetary shocks can be drawn from investigating the impulse-response functions corresponding to the reaction of government expenditure and net taxes to structural interest rate shocks. Accommodative fiscal policy on the expenditure side can be observed in the Czech Republic, Hungary and, to a lesser extent, the Slovak Republic, where public spending decreases after a positive interest rate shock. In the Czech Republic and Hungary, by contrast, net taxes respond negatively to a shock in the interest rate. The net effect evaluated at the median response indicates that the non-accommodating effect tends to be slightly higher than the reduction of government expenditure following a contractive interest rate shock.

Turning to the reaction of monetary policy to fiscal policy shocks (see also tables 2 and 3), all countries, with the exception of Slovenia, tend to react to an expansion of public spending by increasing their interest rates (in Slovakia and the

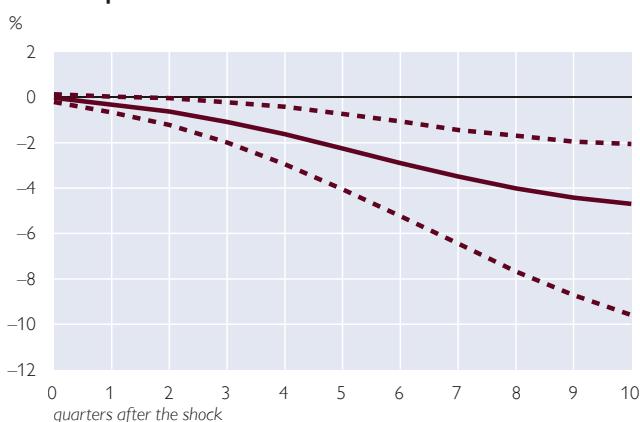
¹⁹ To examine cross-country differences in the response of domestic output to a foreign fiscal shock in a more instructive manner, it would be useful to present partial regression plots where the conditional correlation between the cumulative impulse response and the variable of interest is shown and relevant country-specific characteristics are used as control variables (such as the structure and governance of fiscal policy, the degree of economic integration and openness, the size of and distance between the economies under investigation, the exchange rate system or the type of monetary policy reaction). However, this exercise makes only sense in a cross-section setting with considerably more than five observations. This is also why chart 4 – an unconditional correlation between the output response and trade integration – is shown here primarily for suggestive reasons.

²⁰ It should be noted that our results for Hungary differ from those of Lendvai (2007), who finds for the period Q1 1997 to Q4 2005 that increasing government expenditure leads to a contraction in GDP, using a structural VAR with a “Cholesky” identification scheme à la Fatás and Mihov (2001).

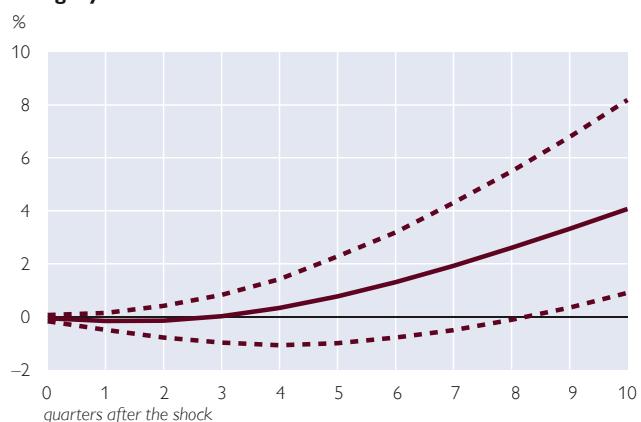
²¹ In the following, we discuss further interesting impulse responses without presenting the respective charts, which are, however, available from the authors upon request.

Response of Real GDP to a Foreign Fiscal Shock

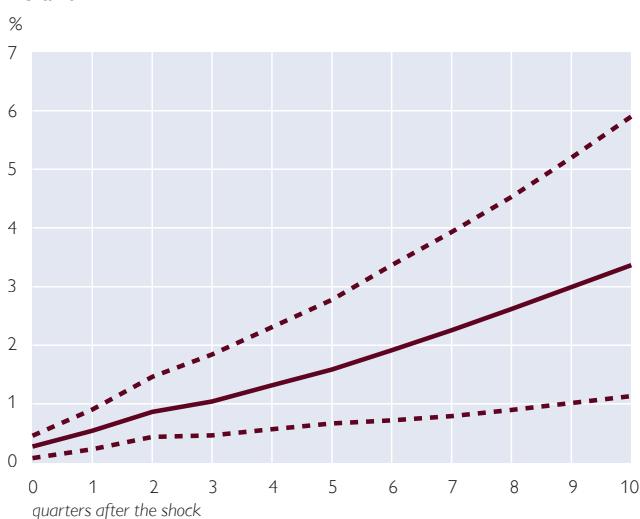
Czech Republic



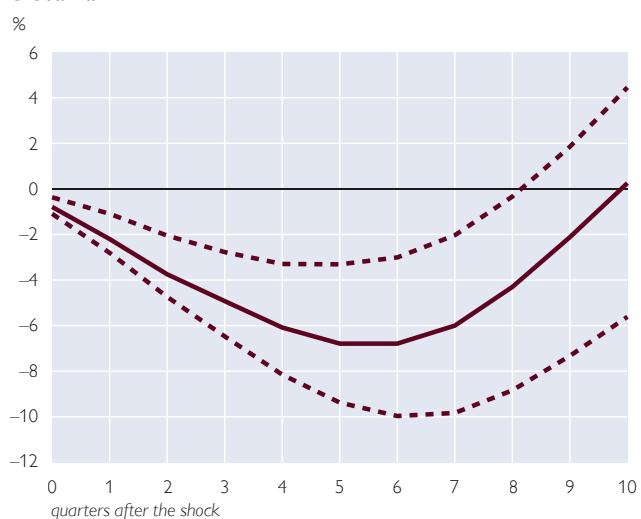
Hungary



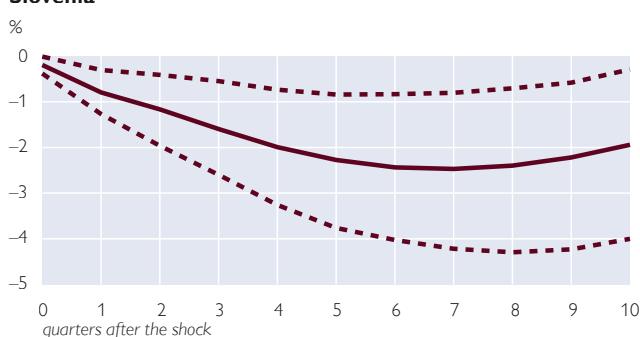
Poland



Slovakia



Slovenia



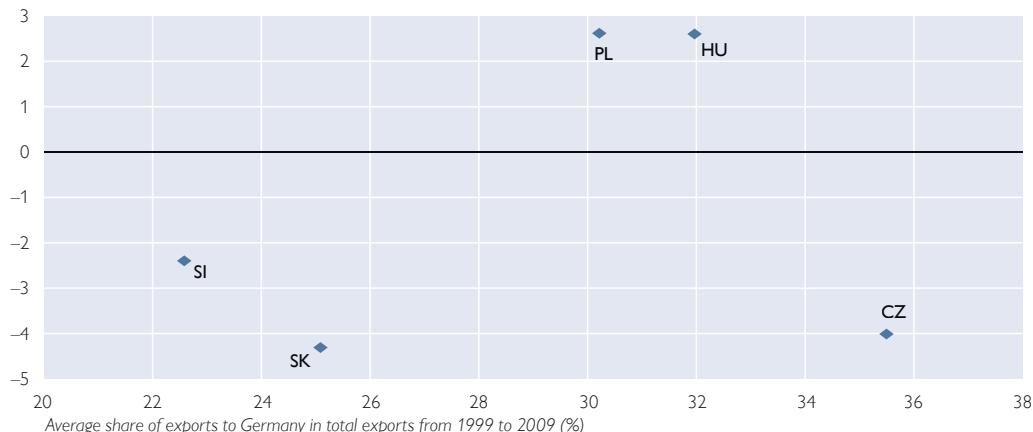
Source: Authors' estimations.

Note: The curves represent the cumulative median response of domestic real GDP to a temporary shock in the German fiscal balance-to-GDP ratio (easing of the German fiscal balance by 1% of GDP) and the 95% Hall percentile confidence bands (dotted lines), obtained by bootstrapping methods with 1,000 replications.

Chart 4

Cross-Border Spillover of a Foreign Fiscal Shock and Degree of Trade Integration

Cumulative output reaction to a temporary fiscal shock in Germany after 2 years (%)



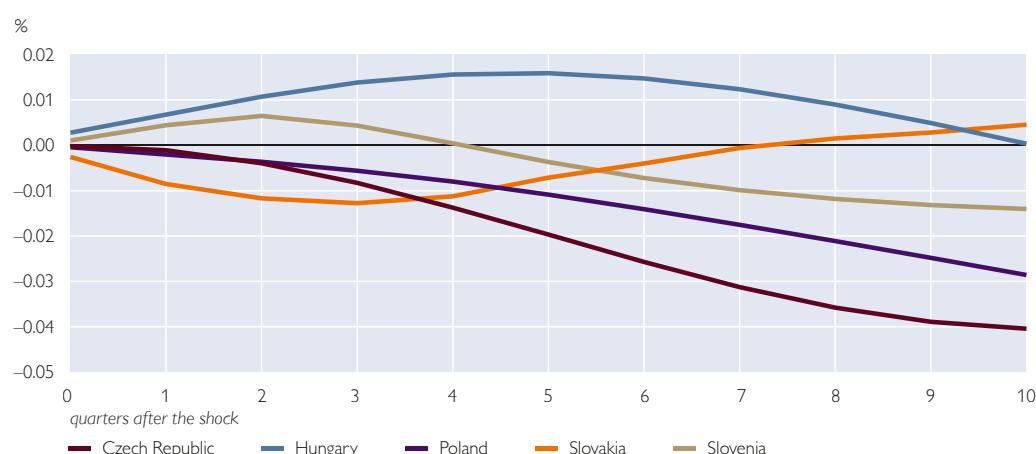
Source: Authors' estimations, Eurostat.

Czech Republic this response is statistically significant only up to half a year after the shock). The reactions to shocks to net taxes are more heterogeneous across the CEE-5 economies: Accommodative monetary policy (increase in the interest rate after a positive net tax shock) can be observed in Slovenia and Poland after the second year, and non-accommodative reactions are present in the Czech Republic.

The analysis of the reaction of domestic fiscal variables to structural output shocks identifies well-functioning responses related to automatic stabilizers. A positive shock in output tends to reduce government expenditure and increase net taxes in practically all cases under study. The strong positive reaction of inflation

Chart 5

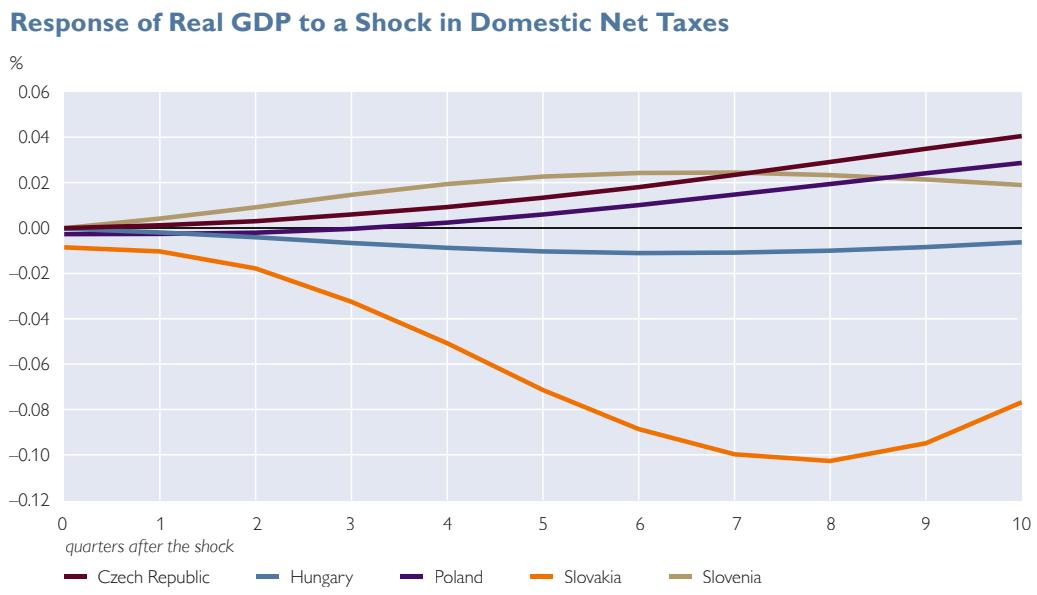
Response of Real GDP to a Shock in Domestic Government Spending



Source: Authors' estimations.

Note: The curves represent the cumulative median response of real GDP to a temporary 1% shock in domestic government spending. Based on 95% Hall percentile confidence bands (which are not shown here to get a better overview), statistical significance is given in the Czech Republic, in Poland and in Hungary up to five quarters after the shock, and in Slovakia up to three quarters after the shock.

Chart 6



Source: Authors' estimations.

Note: The curves represent the cumulative median response of real GDP to a temporary 1% shock in domestic net taxes. Based on 95% Hall percentile confidence bands (which are not shown here to get a better overview), statistical significance is given in Slovakia and Slovenia for all shown quarters after the shock, in the Czech Republic starting six quarters after the shock and in Poland starting eight quarters after the shock.

to public spending shocks can also be easily framed in the setting of simple aggregate supply-aggregate demand models.

4.2 Robustness Checks and Caveats

Before concluding, we present various robustness checks that have been executed to ensure that the baseline results still hold when alternative specifications are taken into account.²²

First, we account for the concern that the identified fiscal shocks might actually have been anticipated. Given that government expenditure or tax changes have considerable legislative lags and are widely publicized prior to their implementation, economic agents may adjust their behavior as soon as these changes are announced and not necessarily at the time they are implemented. Such a phenomenon may distort the impulse responses shown in the previous section (for a technical underpinning, see Canova, 2009).

In order to check to what extent fiscal foresight may be an issue in our sample, we follow Perotti (2004) and assume that publicly available forecasts for fiscal and macroeconomic variables reflect government announcements of future expenditure and tax changes. We then check whether such forecasts are systematically correlated with our VAR-based innovations in order to reveal their predictability. Table 4 shows the replication of Perotti's preferred specification, with the estimated reduced form residuals from equation (2) for government spending and net taxes being regressed on vintage projections of the growth rate of government consump-

²² Detailed robustness check results, which are not explicitly shown in this section, are available from the authors upon request.

tion and GDP for the countries in our sample (taken from various issues of the OECD Economic Outlook). With the exception of the Czech Republic, where a robust correlation with GDP growth forecasts can be found for net taxes, we cannot confirm the predictability of VAR innovations in our setting.²³ This corroborates the findings of Perotti (2004) for five high income OECD countries.

The lack of statistically significant fiscal foresight can be explained by the fact that economic agents indeed respond when discretionary measures materialize and not when they are announced, as budgetary announcements are most likely not taken at face value due to their preliminary character. This view is also supported by Johnson et al. (2006), who found, using data from the U.S.

Table 4

Predictability of Fiscal News

A. Reduced Form Residuals for Government Purchases of Goods and Services

	GC_1	GC_2	GDP_1	GDP_2	Number of observations	R ²
Czech Rep.	0.002 (0.30)	-0.002 (0.26)	0.001 (0.59)	-0.001 (0.74)	49	0.04
Hungary	-0.004 (0.15)	0.008** (0.04)	0.000 (0.92)	-0.002 (0.71)	49	0.11
Poland	0.000 (0.97)	0.002** (0.03)	-0.001 (0.38)	0.000 (0.80)	49	0.12
Slovakia	0.001 (0.51)	0.002 (0.27)	-0.000 (0.82)	-0.000 (0.73)	35	0.07

B. Reduced Form Residuals for Net Taxes

	GC_1	GC_2	GDP_1	GDP_2	Number of observations	R ²
Czech Rep.	-0.002 (0.79)	-0.000 (0.98)	0.016 ** (0.02)	-0.013 (0.14)	49	0.16
Hungary	0.002 (0.82)	-0.003 (0.78)	-0.006 (0.52)	0.007 (0.66)	49	0.01
Poland	0.001 (0.73)	0.002 (0.38)	-0.001 (0.55)	0.001 (0.64)	49	0.03
Slovakia	-0.002 (0.34)	0.001 (0.86)	0.001 (0.48)	0.001 (0.85)	35	0.08

Source: Authors' estimations using data from the OECD Economic Outlook, various issues since 1997/1 (the earliest available forecasts for the four listed countries).

Note: These projections are not available for Slovenia, which has become an OECD member only in 2010. Coefficients are estimated with OLS. p-values for the null hypothesis of a coefficient equal to zero are in parentheses. ** indicates significance at the 5% level. All regressions contain a constant (not reported). The dependent variables are the estimated reduced form residuals from equation (2) for government purchases of goods and services (panel A) and net taxes (panel B). GC and GDP represent the projected real annual growth rate of government consumption and GDP, respectively. „_1“ and „_2“ refer to the two most recently published forecasts: „_1“ („_2“) indicates that for annual growth in a given year j, we use the projections published in December (June) of year j-1 for the first quarter, the projections published in June of year j (December of year j-1) for the second and third quarters, and the projections published in December (June) of year j for the fourth quarter.

²³ The significant correlation between government consumption forecasts and government spending innovations vanishes for Hungary and Poland when we use alternative specifications, i.e. when we replace government consumption forecasts with projections for the general government financial balance as a percentage of GDP or when we include – besides forecasts for the current year j – also forecasts for the year j+1.

Consumer Expenditure Survey, that private consumption displayed large contemporaneous responses to income tax rebates and changes in social security taxes although both of them were announced well in advance.

Second, we address the issue to what extent the responses of fiscal and macroeconomic variables in the CEE-5 are truly due to a fiscal shock in Germany or to a different common exogenous shock not incorporated in the empirical model (such as global business cycle or trade shocks). Estimates based on data from before the Great Recession indicate that these responses were at least partly driven by the observations corresponding to the recession year 2009.²⁴ Moreover, analogously to Kožluk and Mehrotra (2009), we include a world price for crude oil (average quarterly price for Brent oil in USD per barrel) as the eighth variable into the system, assuming that all the endogenous variables – including the foreign fiscal balance – respond within the same quarter to a shock in oil prices, while the oil price does not instantaneously react to any shock in the system.²⁵ The baseline results change only slightly: The mean responses are generally slightly smaller, and the positive cross-border fiscal multiplier in Poland becomes statistically insignificant. While the response of the German fiscal balance to domestic fiscal shocks partly vanishes – especially in the case of spending shocks – the oil price itself responds unexpectedly strongly to some of the fiscal shocks. This indicates that this specification is not able to fully capture a global (probably non-energy related) shock that has a common impact on the variables in our model. As an issue for future research, a global VAR (GVAR) approach à la Dées et al. (2007) might be a practicable approach to obtain more satisfactory answers in this respect.

Third, the baseline results are based on estimated structural VAR models whose restrictions are partly calibrated using elasticities imported from existing studies, which are justified in section 2.3.1 above. We re-estimated several models using restrictions with other plausible values for the implied elasticities of the domestic fiscal variables, based on upper and lower bounds of existing estimates. The results were left qualitatively unchanged.

While the setting used in the model allows the specification of very rich dynamics in the variables composing the VAR, a few caveats related to our modeling strategy should be mentioned. As in the case of unrestricted linear VAR models, our structural VAR specification does not allow different responses to positive versus negative structural shocks. In principle, a model could be specified in which different parameters are active depending on the sign (and eventually the size) of a structural shock. In our case, the complexity of such a specification for the limited amount of data available makes it impossible to include such nonlinearities in the model.

Moreover, the difficulties in reaching convergence in the estimation of the structural form coefficients (see section 3.2) prevented various additional modifications, such as restricting the sample to the pre-crisis period (in this case we attained convergence for Slovakia only), or scaling domestic spending and net

²⁴ For instance in the case of Slovakia, when we use data only up to Q2 2008, a shock in net taxes has not a significant impact on the foreign fiscal balance and a foreign fiscal shock has not a significant impact on domestic public spending anymore.

²⁵ This specification delivers five overidentifying restrictions, whose validity was confirmed for Hungary, the Czech Republic and Poland, while it was rejected for Slovakia (at the 1% level). For Slovenia we were not able to attain convergence when estimating the structural form coefficients.

taxes to GDP (in this case we attained convergence for the Czech Republic only). Nevertheless, we feel that our model allows an examination of rich dynamics in response to fiscal shocks, in contrast to smaller systems, where the structural form estimation may have been an easier task.

5 Conclusions and Further Research

In this study we analyze the economic impact that an unexpected, discretionary change in fiscal policy both in the domestic economy and in an important trading partner country (Germany) has on five Central and Eastern European economies (CEE-5: the Czech Republic, Hungary, Poland, Slovakia and Slovenia) from the first quarter of 1995 to the fourth quarter of 2009. For this purpose, we develop an open economy structural vector autoregressive (SVAR) model that incorporates both foreign and domestic fiscal shocks. To the best of our knowledge, this is one of the first SVAR models that explicitly accounts for the transmission of a foreign fiscal shock to key domestic macroeconomic variables in CEE. To identify our seven-variable SVAR model, we restrict the contemporaneous responses in the system; the restrictions are calibrated by referring to existing (closed economy) fiscal SVAR models and by importing available estimates for fiscal elasticities in the CEE-5. Our model is able to reassemble well-known episodes of fiscal policy action in the countries under investigation.

We find that the fiscal policy stance in the CEE-5 is affected by fiscal policy changes in Germany. If Germany undertakes a fiscal expansion, all the CEE-5 will react with fiscal easing too – more on the public spending than on the revenue side. At the same time, in a few specifications, fiscal shocks in the CEE-5 have an impact on the German fiscal balance as well. There are indications that common reactions to the recession in 2009 prompted responses in both ways.

The evidence is less homogeneous for cross-country fiscal multipliers. The negative economic transmission of a fiscal shock in Germany to the Czech Republic and Slovakia is apparently due to a stronger weight of the negative interest rate channel in comparison to the potentially positive trade and exchange rate channels. In Poland and Hungary, in turn, the positive response of real GDP to a fiscal shock in Germany points to a more dominant role of the trade and exchange rate channels in these economies. There is also some evidence for an impact on the policy mix in Poland and Slovenia, where the short-term interest rate responds negatively to a foreign fiscal expansion. Not only the response to a foreign fiscal shock is heterogeneous, but also the response to a domestic fiscal shock. In particular, Keynesian responses can be found in Hungary and Slovakia, while non-Keynesian responses are present in the Czech Republic, Poland and Slovenia.

This evidence implies that fiscal policy in an important foreign economic partner country is a matter of common concern, underlining the importance of formal and informal coordination within the EU. However, given the heterogeneity in the domestic responses, “one-size-fits-all” policy recommendations would be too simplistic for the CEE-5. To learn more about the distribution of the costs and benefits of fiscal shocks and to promote a better understanding of country-specific policy preferences, it would be useful to examine more closely the reasons for the heterogeneity across countries. In order to find out whether various country-specific characteristics explain cross-country differences in the impulse responses in a statistically significant manner, it would be indispensable to expand the sample

and include additional countries with satisfactory fiscal data (e.g. a panel consisting of OECD countries).

Potential nonlinear effects related to the interaction of budget deficits and the level of public debt may be a promising avenue explaining the differences in responses to fiscal shocks in the CEE-5. High levels of public debt coupled with high deficits, for instance, may be a trigger for non-Keynesian effects. A thorough analysis of such effects using nonlinear structures would be an important issue of further research. Moreover, a generalization of our proposed model in order to consider responses to different components of government spending and revenues could also shed light on the source of the cross-country differences found in this analysis.

Finally, it should be noted that different identification and estimation methods from those used in this study could have been used to assess our research question. In particular, sign restrictions have often been implemented to identify structural shocks in similar frameworks (for example in Dungey and Fry, 2009). Notwithstanding the recent criticism of this identification method – particularly as regards the estimation and interpretation of impulse-response functions (see Fry and Pagan, 2011) – its application may prove fruitful in future research efforts. Caldara and Kamps (2008), for instance, showed that the effects of spending shocks do not really change across different identification approaches, while the differences in the way tax shocks are identified is important. Further extensions with regard to the estimation method could be Bayesian vector autoregressions (BVAR), as in Afonso and Sousa (2009) or Kamal (2010), or structural factor-augmented VAR (SFAVAR) models. These methods are quite data intensive and computationally challenging; hence we leave their application to our setting to future research.

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Annex

Table A1

Description of Variables

Variables		Description and calculation	Unit	Treatment	Source
Foreign fiscal balance	f^*	Fiscal balance-to-GDP ratio in Germany, calculated as $f^* = (g^* - t^*)/y^*$; definitions for g^* , t^* , and y^* follow those for g , t , and y below; the balance is inversely defined to interpret an increase in f^* as a fiscal expansion	%	Seasonal adjustment	Eurostat, Government Finance Statistics, Quarterly Non-Financial Accounts for General Government
Government spending	g	Government purchases of goods and services = government consumption + government investment = compensation of public employees (ESA-code D.1) + intermediate consumption (ESA-code P.2) + government gross fixed capital formation (ESA-code P.51); general government sector	log domestic currency millions	Interpolation for 1995-1998, deflation using CPI, seasonal adjustment	Eurostat, Government Finance Statistics, Quarterly Non-Financial Accounts for General Government
Net taxes	τ	Net taxes = government revenues - transfers = indirect taxes (ESA-code D.2) + direct taxes (ESA-code D.5) + social security contributions (ESA-code D.611) – social benefits and social transfers in kind (ESA-code D.62 + D.6311 + D.63121 + D.63131) – subsidies (ESA-code D.3); general government sector	log domestic currency millions	Interpolation for 1995-1998, deflation using CPI, seasonal adjustment	Eurostat, Government Finance Statistics, Quarterly Non-Financial Accounts for General Government
Output	y	GDP at 2000 market prices (chain-linked volume)	log domestic currency millions	Seasonal adjustment	Eurostat
Exchange rate	e	Nominal effective exchange rate (41 trading partners), period-average; an increase corresponds to an appreciation	log index (1999=100)		Eurostat
Inflation rate	π	Year-on-year change of the nationally defined consumer price index (all-items HICP is only available starting from 1996)	%		wiiw
Interest rate	i	Short-term interest rate, period average, corresponding to the three-month interbank offered rate in the Czech Republic, Slovakia and Poland, to the money market rate in Slovenia, and to the treasury bill rate in Hungary	% per annum		Eurostat, Bloomberg, IMF

Source: Authors' compilation.

CESEE-Related Abstracts from Other OeNB Publications

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

Preserving Macrofinancial Stability in Serbia: Past Legacies, Present Dilemmas and Future Challenges

Serbia accumulated sizeable macrofinancial imbalances during the boom years 2004 to 2008, which made the country vulnerable to external shocks in the context of the global crisis and rendered the process of crisis management more complex. As these vulnerabilities materialized, Serbia had to take recourse to IFI support, which helped to stabilize the macrofinancial conditions. However, some macrofinancial risks prevail, mainly in terms of fiscal and external sustainability. At the same time, financial stability concerns are mitigated by the banking system's high shock-absorption capacities, the strategically-oriented presence of foreign banks and vigilant central bank action. Looking forward, a main challenge will be to avoid a renewed rise in financial and external vulnerabilities. This calls for a prudent economic policy mix and increased efforts toward structural reform.

To be published in *Financial Stability Report 21*.

Sándor Gardó

Event Wrap-Ups

68th East Jour Fixe

Limited Fiscal Space in CESEE: Needs and Options for Post-Crisis Reform¹

Compiled by
Markus Eller²

Introduction

The aim of the 68th East Jour Fixe hosted by the OeNB on February 28, 2011, was to provide answers to the following three main questions: (1) What were the reasons for the limited budgetary room for maneuver and for the limited crisis resilience of public finance systems in the CESEE economies during the 2008–09 financial and economic crisis? (2) What are the related implications and what kind of reforms are necessary to provide more fiscal space³ 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?

Peter Mooslechner, Director of the OeNB's Economic Analysis and Research Department, opened the workshop and pointed out that knowledge on fiscal policy developments is crucial for a central bank in order to properly guarantee price stability, contain inflation expectations and keep financial markets stable. The workshop's focus on CESEE countries did 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 stimulus packages while fiscal headline positions deteriorated strongly in most countries of the region (though, on average, public deficit and public debt ratios increased less in the CESEE EU Member States than in the EU-27). Mooslechner also addressed the broader implications of this fiscal deterioration. Excessive deficit procedures (EDPs) were opened for all CESEE EU Member States, except for Estonia, in 2009–10, setting back possible time lines for euro adoption in those countries that are not yet members of the euro area. Moreover, the question arises how a prolonged period of fiscal consolidation can be reconciled with a renewed promotion of the catching-up process in the region.

Fiscal Impact of the Crisis and Importance of Appropriate Fiscal Consolidation

In the first keynote address, Bas Bakker, Chief of the Emerging Europe Regional Division at the IMF, emphasized that, prior to the crisis, headline fiscal positions appeared to be favorable in most CESEE countries (compared to both advanced European countries and other emerging market regions). However, strong revenue growth during the pre-crisis boom period boosted government spending and thus led to the deterioration in underlying structural positions. This came to the fore during the crisis as sharp declines in real GDP and domestic demand eroded

¹ The proceedings of this event will be published in the OeNB's Workshops series (No. 17) in May/June 2011. The presentations and the workshop program are available at <http://ceec.oenb.at> (Activities).

² Compiled by Markus Eller on the basis of notes taken by Mariya Hake, Antje Hildebrandt and Katharina Steiner.

³ There are several definitions of fiscal space in the literature, e.g. financing the deficit without either a sharp increase in funding costs or undue crowding out of private investment (Ostry et al., 2010). In this workshop, the notion of fiscal space denoted the capability of fiscal policy to respond to shocks (e.g. a recession), depending on fiscal headline positions at the time of the shock and the historical track record for fiscal adjustment, which, in turn, depends on the credibility of the government and the quality of fiscal institutions

revenues. At the same time, several countries faced difficulties in financing deficits, such as Hungary, Latvia or Romania. Unprecedented adjustment measures were therefore necessary, diminishing the leeway for the free operation of automatic stabilizers or for stimulating the economy (except in Poland and Russia). Bakker advocated continued fiscal consolidation given that the rapid build-up of debt during the crisis has put the countries at risk (their vulnerability threshold of public debt is lower than that of advanced countries) and contagion from sovereign solvency problems in advanced European economies cannot be fully precluded. Fiscal consolidation should be intensified in 2011 compared with 2010, since there are now fewer concerns that economic recovery would be nipped in the bud, and it should focus on expenditure cuts rather than on tax increases. To achieve more prudent fiscal policy during boom years in the future, Bakker suggested that expenditure growth should be kept in line with cautious estimates of potential GDP growth and, additionally, revenue over-performance should be used to build up buffers that can be used during the next economic downturn.

In the ensuing discussion it was argued that the private boom-bust cycle rather than the fiscal side should be addressed in CESEE in the first place. Bakker countered that there are only limited possibilities to steer the private sector directly, especially in countries with a fixed exchange rate regime, and therefore fiscal policy is one of the primary options.

Funded Pensions as a Countercyclical Tool to Create More Fiscal Space

In the second keynote lecture, *Karsten Staehr*, Professor at Tallinn University of Technology and research supervisor at Eesti Pank, argued that large business cycle fluctuations are a major public finance challenge in CESEE, both in terms of appropriate business cycle stabilization and as regards the avoidance of budget crises. Most of the CESEE EU Member States have already adopted a three-pillar pension model (first pillar: unfunded public pension, second pillar: compulsory funded pension, third pillar: voluntary saving). The Czech Republic and Slovenia, which have not yet implemented a second pillar, and Hungary, which recently abolished the second pillar, are exceptions. Staehr proposed to use funded pensions actively as a countercyclical instrument, thereby enhancing the crisis resilience and stabilization capacity of public finance systems in CESEE. This could be done in two ways. First, contributions to funded pensions could be discontinued or lowered in bad times and increased in good times. This option has already been implemented in a few CESEE countries since the outbreak of the recent crisis. Second, households would be allowed to withdraw all or part of already accumulated savings under the second and third pillars in bad times; this option has not yet been tried in CESEE. A positive impact on the budget balance – and thus an expansion of fiscal space during bad times – can be expected if released pension savings are taxed (not least in order to steer withdrawals) and public spending increases can be avoided given the domestic demand impetus.

The ensuing discussion revealed that it is important to consider the asset composition of funded pensions as, e.g., the price of stocks behaves procyclically and, therefore, withdrawals of pension savings during bad times can amplify price declines and increase systemic risk. Equally important is the design of appropriate incentives for rebuilding savings during good times.

Limited Fiscal Space: Structure of Fiscal Measures Matters

Session 1, chaired by Peter Mooslechner (OeNB), analyzed the structural composition of fiscal policy before and during the crisis to improve the understanding of the reasons for limited fiscal space in CESEE.

Nadine Leiner-Killinger, Principal Economist at the Fiscal Policies Division of the ECB, showed that the pre-crisis demand boom in the CESEE EU Member States led to a comparatively strong increase of indirect taxes, often combined with rises in less “productive” expenditure categories (such as social benefits and public wages). At the same time, several countries consistently failed to meet structural balance targets and therefore were not able to build up trust in fiscal policy before the crisis. Once the crisis hit the CESEE region, the comparatively strong reliance on indirect taxes resulted in a quick erosion of revenues whereas expenditures were adjusted only slowly (social benefits and compensation of employees even continued to increase substantially in 2007–09, often because of past decisions). Leiner-Killinger cast some doubt on whether the ongoing consolidation process has gone hand in hand with sufficient changes in the expenditure structure towards more productive items that would sustain potential growth in the future. On the positive side, a sizeable part of the 2009–12 fiscal consolidation is (planned to be) driven by expenditure restraint. On the negative side, the share of social benefits in total expenditures is set to increase (partly driven by the crisis) while the share of government investment is scheduled to decrease in most of the CESEE EU Member States in comparison with 2007.

Markus Eller, economist at the OeNB’s Foreign Research Division, summarized the reasons for limited fiscal space in CESEE, emphasizing the issue of sovereign liquidity constraints that emerging economies often face during recessions. Pro-cyclical discretionary fiscal policy before the crisis and public spending growth stronger than potential GDP growth led to a deterioration of structural balances, leaving no buffers when the crisis hit. Moreover, steeply widening sovereign CDS spreads at the beginning of the crisis (reinforced not least by trust problems) made the financing of deficits much more costly. Finally, as governments in the region largely relied on the external financing of public debt, and access to international financial markets became precarious at the beginning of the recession, several CESEE countries experienced liquidity constraints. As a result of these different factors, most CESEE countries had to put more effort into avoiding a budget crisis instead of using fiscal policy for crisis mitigation. Eller also stressed that liquidity constraints could be relaxed by restructuring government debt toward domestic holders, long-term maturities and local currency denomination (strengthening of domestic currency capital market is crucial in this context), by proper risk assessment to account for contingent liabilities, and/or by the implementation of credible medium-term frameworks and an improvement of fiscal rules.

In the discussion it was recalled that fiscal policy in countries with weak institutional credibility is often subject to a vicious cycle: Short-run stimulus measures can quickly result in concerns about long-run sustainability, which, in turn, requires immediate consolidation measures and therefore limits the business cycle stabilization capacities of fiscal policy.

How to Make CESEE's Public Finance Systems More Crisis-Resilient and Improve Their Macroeconomic Stabilization Capacity

Session 2, chaired by *Peter Backé*, Deputy Head of the OeNB's Foreign Research Division and Head of the Unit for Central, Eastern and Southeastern European Analysis, featured a panel discussion among fiscal policy experts from CESEE public institutions debating country-specific lessons and reform options to create more fiscal space in CESEE in the future.

Tomasz Jędrzejowicz, Head of Section in the Bureau of Public Finance, Institutions and Regulations at Narodowy Bank Polski, emphasized that the pre-crisis boost in revenues in Poland can be attributed more to revenue windfalls than to improvements in the cyclical position. Nevertheless, Poland was one of the few countries in CESEE that was able to provide considerable countercyclical fiscal support during the crisis given favorable general conditions, such as the comparatively good growth performance that translated into financial market confidence and allowed automatic stabilizers to play freely. With regard to the current fiscal consolidation, Jędrzejowicz stressed that a simple reversal of 2008–10 fiscal loosening may have a negative impact on potential growth. In particular, it is important that public investment is not being cut. Finally, Jędrzejowicz advocated expenditure ceilings as effective fiscal rules and provided evidence that EU countries which pursue an expenditure-based fiscal rule contain public spending during boom periods more effectively than the remaining EU countries.

Petr Král, Director of the Monetary Policy and Fiscal Analyses Division at Česká národní banka, called for sound and enforceable fiscal rules. In this context the current tightening of the macrofiscal framework at the EU level ought to be useful. It does, however, not substitute for the necessity to pursue responsible fiscal governance at the national level in times of solid economic growth. Král demonstrated that Czech fiscal policy was mostly procyclical in the past as extra revenues were typically spent and shortfalls in receipts were not accompanied by adequate expenditure cuts. Král also responded to Karsten Staehr's presentation, emphasizing that currently a pension reform is being discussed in the Czech Republic, which should become effective in 2013 and is expected to comprise the creation of a fully funded second pillar.

Neven Mates, Chief Advisor to the Governor of Hrvatska narodna banka, emphasized that not only initial public deficit and debt levels but also the current account position of a country are important determinants of fiscal space. Mates uses the change in sovereign CDS spreads as a proxy for fiscal space, arguing that "as long as you can borrow cheaply, you have fiscal space." He identified notable cross-country differences. Those who entered the crisis with a sound fiscal position and without external imbalances were able to afford some expansionary fiscal policy without seeing their sovereign spreads substantially deteriorating (such as the Czech Republic, Slovakia and Slovenia). Other countries, which posted good fiscal indicators but also large current account deficits at the onset of the crisis, or which recorded both a weak fiscal and external position, saw their spreads shooting up and the access to private capital weakening. These countries were not able to afford fiscal stimulus and had to finance increasing headline deficits either from budgetary reserves (Estonia and Bulgaria) or by resorting to IMF and EU aid (Hungary, Latvia and Romania).

Lúdovít Ődor, Advisor to the Prime Minister and Minister of Finance of the Slovak Republic, sketched region-specific challenges for fiscal policymakers in CESEE which, in the end, have contributed to limited fiscal space. Elevated macroeconomic volatility and frequent “regime changes” (like supply shocks or election cycles) make it difficult to calculate the cyclical component of the budget accurately and thus contribute to a procyclicality bias. The tax potential is limited due to tax evasion and dependence on FDI. Low employment, bad infrastructure, non-competitive state-owned companies or unsustainable pension and healthcare systems create an additional burden on public finances. Corruption and problems with law enforcement reduce transparency. Ődor argued that multi-year nominal expenditure ceilings based on changes in public net worth (public sector assets minus public sector liabilities that also contain contingent liabilities) together with independent fiscal councils (which are not equipped with any normative power but provide regular assessments to decrease information asymmetries between fiscal policymakers and the public) constitute the most suitable fiscal policy framework for CESEE.

In the discussion the question was raised whether fiscal policy in CESEE could get “addicted” to structural EU support. Mates argued that the associated transfers have helped a lot in improving fiscal headline positions. Král replied that no macroeconomic effect has been found yet, but, from a microeconomic point of view, many projects would not have been realized without these funds.

International Funds as a Possibility to Create More Fiscal Space? – The Role of International Transfers in Public Investment in CESEE

Session 3, chaired by *Doris Ritzberger-Grünwald*, Head of the OeNB’s Foreign Research Division, addressed the role of international transfers in public investment. Improved access to and a more effective use of international funds are often considered as one possibility to create more fiscal space in CESEE, and these funds are deemed to have served as valuable buffers during the recent crisis.

Philippe Monfort, Policy Analyst at the European Commission, Directorate General for Regional Policy, stressed that existing empirical evidence on the macroeconomic impact of the EU’s cohesion policy is rather mixed. Convergence analysis shows that the disparities between EU-27 regions have decreased. Some econometric investigations indicate that a positive economic growth impact of the EU’s Structural Funds can only be found in countries whose institutional quality is satisfactory. Moreover, policies that facilitate structural change and increase research and development capabilities in poorer regions seem to be crucial to get the maximum out of the support. With regard to the effectiveness of structural funds, Monfort highlighted that the absorption capacity in the CESEE EU Member States is not worse than in the EU-15. However, the financial management and control system emerges as a major subject of criticism in qualitative sample studies. Another shortcoming is the lack of an appropriate strategic approach, which has led to a dispersion of resources into incoherent and unconnected projects. EU Member States and regions should be required to formulate regional development strategies and targets which concentrate EU and national resources on a small number of themes, closely linked to the priorities of the Europe 2020 growth strategy.

Jean Vrla, Head of Division at the European Investment Bank (EIB), Directorate for Operations in the European Union and Candidate Countries, explained that the EIB nearly doubled its lending volumes to the CESEE EU Member States in the course of the crisis. The funded projects are focused on areas such as cohesion and convergence policy, small and medium-sized enterprises (SME), environmental sustainability, the knowledge economy, Trans-European Networks or energy. Large-scale infrastructure projects still form the lion's share of the EIB's lending to CESEE, with the share of SME funding having considerably increased during the last two years. Vrla asserted that the demand for EIB lending in EU and pre-accession countries is expected to weaken in the period 2011–13 as the access to alternative funding is expected to recover. While the disbursement flows to projects will remain high in the next few years due to the time lag between signature and project implementation, the EIB's 2011–13 lending volumes are expected to return gradually to pre-crisis levels due to the need for fiscal discipline in CESEE and the uncertain future demand for large public-private partnership (PPP) projects.

Finally, *Christian Kummert*, Managing Director at Kommunalkredit Austria AG, from the practitioner's perspective discussed the role of commercial banks in co-financing large-scale infrastructure projects via multinational banks and specifically elaborated on the funding of PPP projects in CESEE. Kummert pointed out that during the crisis many banks faced difficulties in obtaining long-term funding, which banks need to be able to offer long-term loans for the funding of PPP projects. As a consequence, a number of banks withdrew from PPP lending altogether, and the share of cancelled PPP projects increased. Kummert stressed that multinational banks, such as the EIB and the EBRD, have recently played an important role in the financing of PPP projects in CESEE, as they are able to replace the shortfall in commercial debt in sizable projects and provide credibility to individual transactions. Also, their capability to raise local currency funding in the markets and utilize these funds for infrastructure debt makes them a valuable project partner. Kummert's assessment of future perspectives for PPPs is twofold: On the one hand, increasing public indebtedness might reduce future investment in public infrastructure. On the other hand, higher public debt might also stimulate off-balance sheet models such as PPPs to procure public infrastructure projects.

References

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Presentation at the OeNB by Éva Katalin Polgár (ECB): Are Policy Measures Effective in Controlling Credit Growth in Emerging Europe?

Compiled by
Katharina Steiner

Strong credit growth in the run-up to the financial crisis has partly been seen as a convergence phenomenon of financial deepening in Central, Eastern and South-eastern Europe (CESEE), but it has also posed substantial risks to financial stability. While a number of countries have implemented micro- and macroprudential measures to control the growth of credit or its composition, others have been rather reluctant to use regulatory tools, pointing to their long-term ineffectiveness.

To shed some light on the issue of regulation, the OeNB invited Éva Katalin Polgár, economist at the ECB's EU Neighbouring Regions Division, to present a pertinent paper on March 17, 2011. The work, entitled "The effectiveness of policy measures to control credit growth in emerging Europe," was co-authored with Aleksandra Zdzienicka, economist at the French research center CEPII. In her presentation, Polgár pointed to the fact that only very few papers deal with the effectiveness of policy measures, which is partly due to the many caveats pertaining to their empirical analysis, e.g. difficulties regarding the construction of indices or modeling the combined impact of measures. The authors dealt with these constraints in a transparent and cautious manner. Their work on this highly policy-relevant issue is a welcome addition to the field, as reflected by the high number of economists attending the presentation.

The empirical exercise by Polgár and Zdzienicka is based on an unbalanced dynamic panel of twelve CESEE EU Member States and EU candidate and potential candidate countries over the period 1998 to 2009. It analyzes the dynamic impact of the policy interest rate, regulatory and prudential tools that affect (mainly) the supply side (e.g. changes in risk weights and quantitative restrictions on lending) and measures that are supposed to deal with credit demand (e.g. the introduction of credit guidelines).

The main findings show an insignificant effect of supply-side tools and demand-side measures but a significant negative correlation of prudential measures with credit growth with a lag of about one year. Standard monetary policy also turns out to be effective in influencing credit developments, which is rather surprising, given that it is rather constrained in many CESEE countries due to the exchange rate regimes in place and/or the high degree of currency substitution in a number of countries. Polgár concluded that besides standard monetary policy, more explicit prudential measures – despite the distortions they may create – should help to curb excessive credit growth in boom times.

The subsequent discussion centered on policy implications and methodological issues, such as modeling the combined impact of various policy measures. While the presentation focused above all on the impact of these policy measures on the growth of real credit to the private sector, the discussion also centered on more preliminary results concerning the impact on foreign currency and cross-border lending. For those specifically interested in the topic, the forthcoming publication of the study will allow in-depth insights into the methods applied and the final results.

Statistical Annex

Statistical Annex

This section provides tables detailing selected economic indicators for Albania, Bosnia and Herzegovina, FYR Macedonia,¹ Serbia, Montenegro 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

	2004	2005	2006	2007	2008	2009	2010
Annual real change in %							
Albania	5.7	5.7	5.4	5.9	7.7	3.3	4.0
Bosnia and Herzegovina	6.3	3.9	6.1	6.2	5.7	-2.9	0.8
FYR Macedonia	4.6	4.4	5.0	6.1	5.0	-0.8	0.5
Serbia	8.3	5.6	5.2	6.9	5.5	-3.1	1.5
Montenegro	4.4	4.2	8.6	10.7	6.9	-5.7	-1.0
Ukraine	12.1	2.7	7.3	7.9	2.3	-14.8	4.2

Source: *wiiw*.

Table 2

Industrial Production

	2004	2005	2006	2007	2008	2009	2010
Annual real change in %							
Albania	14.1	11.7	12.1	-9.7	9.4	0.6	20.0
Bosnia and Herzegovina	12.1	10.8	11.5	6.4	11.0	-3.3	1.6
FYR Macedonia	-2.2	7.1	3.6	3.7	5.5	-7.7	-4.3
Serbia	7.1	0.8	4.7	3.7	1.1	-12.1	3.0
Montenegro	13.8	-1.9	1.0	0.1	-2.0	-32.2	17.5
Ukraine	12.5	3.1	6.2	7.6	-5.2	-21.9	11.2

Source: *wiiw*.

Table 3

Average Gross Wages - Total Economy

	2004	2005	2006	2007	2008	2009	2010
Annual change in %							
Albania	2.8	5.0	9.2	25.2	2.2	14.1	6.2
Bosnia and Herzegovina ¹	12.1	10.8	11.5	6.4	11.0	-3.3	1.6
FYR Macedonia	4.1	2.7	8.0	4.8	8.7	14.1	0.3
Serbia	23.7	24.1	24.4	22.0	17.9	-3.3	7.5
Montenegro	11.7	7.8	15.6	31.7	22.5	5.6	11.2
Ukraine	27.6	36.7	29.2	29.7	33.7	5.5	17.5

Source: *wiiw*.

¹ Net wages.

¹ Former Yugoslav Republic of Macedonia.

Table 4

Unemployment Rate

	2004	2005	2006	2007	2008	2009	2010
%							
Albania ¹	14.4	14.1	13.8	12.9	12.7	13.9	13.5
Bosnia and Herzegovina ¹	43.2	44.1	44.1	42.5	40.6	42.4	43.0
FYR Macedonia ²	37.2	37.3	36.0	34.9	33.8	32.2	32.5
Serbia ²	18.5	20.8	20.9	18.1	13.6	16.1	19.2
Montenegro ²	27.7	30.3	29.6	19.3	17.2	19.3	20.0
Ukraine ²	8.6	7.2	6.8	6.4	6.4	8.8	8.6

Source: wiiw.

¹ Registered, end of period.² Labor Force Survey, period average.

Table 5

Industrial Producer Price Index

	2004	2005	2006	2007	2008	2009	2010
Period average, annual change in %							
Albania ¹	12.2	4.9	0.8	3.5	6.5	-1.6	0.1
Bosnia and Herzegovina ²	2.3	-0.6	3.4	4.6	6.9	-3.1	0.0
FYR Macedonia	0.9	3.2	7.3	2.5	10.3	-6.5	8.5
Serbia	9.1	14.2	13.3	5.9	12.4	5.6	12.7
Montenegro	5.8	2.1	3.6	8.5	14.0	-3.9	-0.8
Ukraine	20.5	16.7	9.6	19.5	35.5	6.5	20.9

Source: wiiw, national sources.

¹ Manufacturing industry.² Federation of Bosnia and Herzegovina.

Table 6

Consumer Price Index

	2004	2005	2006	2007	2008	2009	2010
Period average, annual change in %							
Albania	2.9	2.4	2.4	2.9	3.4	2.3	3.5
Bosnia and Herzegovina	0.8	3.0	6.2	1.5	7.5	-0.4	2.1
FYR Macedonia	-0.4	0.5	3.2	2.3	8.3	-0.8	1.7
Serbia	11.4	16.2	11.7	7.0	13.5	8.6	6.8
Montenegro	2.4	2.3	3.0	4.2	7.4	3.4	0.6
Ukraine	9.0	13.5	9.1	12.8	25.2	15.9	9.4

Source: wiiw.

Table 7

Trade Balance

	2004	2005	2006	2007	2008	2009	2010
% of annual GDP							
Albania	-21.7	-22.5	-23.1	-26.9	-27.4	-26.6	-22.6
Bosnia and Herzegovina	-45.6	-45.2	-34.6	-37.2	-38.2	-27.8	-25.7
FYR Macedonia	-20.6	-17.8	-19.1	-19.8	-26.1	-23.0	-23.0
Serbia	-27.3	-21.1	-21.4	-24.6	-25.4	-17.1	-16.5
Montenegro	-24.9	-28.3	-39.5	-58.7	-67.5	-46.0	-44.0
Ukraine	5.8	-1.3	-4.8	-7.4	-8.9	-3.7	-6.1

Source: wiiw.

Table 8

Current Account Balance

	2004	2005	2006	2007	2008	2009	2010
% of annual GDP							
Albania	-5.8	-9.0	-6.6	-10.6	-15.5	-15.5	-10.2
Bosnia and Herzegovina	-16.3	-17.1	-8.0	-10.7	-14.4	-6.8	-7.1
FYR Macedonia	-8.1	-2.5	-0.4	-7.1	-12.7	-7.2	-1.4
Serbia	-13.8	-8.8	-10.1	-17.6	-21.1	-7.0	-6.3
Montenegro	-7.2	-8.5	-24.7	-39.6	-50.7	-30.1	-23.3
Ukraine	10.6	2.9	-1.5	-3.7	-7.1	-1.5	-1.9

Source: wiiw.

Table 9

Net FDI Inflows

	2004	2005	2006	2007	2008	2009	2010
% of annual GDP							
Albania	4.5	3.2	3.5	6.0	7.0	7.9	8.5
Bosnia and Herzegovina	7.0	5.6	6.2	13.5	5.0	1.5	..
FYR Macedonia	5.8	1.6	6.6	8.5	6.1	2.6	..
Serbia	4.1	6.2	14.3	6.3	5.5	4.7	..
Montenegro	3.0	21.0	21.7	20.8	17.9	30.8	..
Ukraine	2.6	8.7	5.3	6.5	5.5	4.0	4.2

Source: wiiw.

Table 10

Reserve Assets Excluding Gold

	2004	2005	2006	2007	2008	2009	2010
End of period, % of annual GDP							
Albania	16.7	17.9	18.5	18.1	18.4	18.6	20.8
Bosnia and Herzegovina	22.0	24.7	28.3	30.8	25.5	25.6	25.9
FYR Macedonia	14.7	21.4	25.1	23.5	20.3	21.2	21.6
Serbia	15.9	23.5	38.0	32.8	23.8	34.3	31.9
Montenegro	2.0	3.4	8.0	9.7	7.0	5.8	5.7
Ukraine	13.4	23.2	19.3	20.8	17.8	21.2	24.3

Source: wiiw.

Table 11

Gross External Debt

	2004	2005	2006	2007	2008	2009	2010
<i>End of period, % of annual GDP</i>							
Albania	23.4	25.1	26.1	26.7	34.7	38.3	40.7
Bosnia and Herzegovina ¹	25.5	25.3	21.1	18.2	17.2	21.8	25.3
FYR Macedonia	46.8	52.5	47.9	47.6	49.2	57.0	58.9
Serbia	49.8	60.1	60.9	59.5	63.1	75.0	82.3
Montenegro	29.3	28.3	23.5	17.2	15.6	23.5	31.3
Ukraine	43.1	48.5	48.2	52.2	58.6	85.7	80.5

Source: wiiw.

¹ Gross external public debt.

Table 12

General Government Balance

	2004	2005	2006	2007	2008	2009	2010
<i>% of GDP</i>							
Albania	-5.1	-3.5	-3.3	-3.5	-5.5	-7.0	-3.0
Bosnia and Herzegovina	1.6	2.4	2.9	1.2	-2.2	-4.5	-4.5
FYR Macedonia	0.0	0.2	-0.5	0.6	-0.9	-2.6	-3.0
Serbia	0.9	1.0	-1.6	-1.9	-2.6	-4.3	-4.8
Montenegro	-2.0	-1.7	1.6	6.7	0.5	-2.3	..
Ukraine	-3.2	-1.8	-0.7	-1.1	-1.5	-4.1	-6.0

Source: wiiw.

Table 13

Gross General Government Debt

	2004	2005	2006	2007	2008	2009	2010
<i>% of annual GDP</i>							
Albania	57.7	58.1	56.0	53.9	55.2	61.6	61.0
Bosnia and Herzegovina	25.5	25.6	22.0	29.8	30.8	33.4	36.0
FYR Macedonia	42.6	46.9	39.9	33.3	28.7	32.0	34.0
Serbia	50.7	52.1	37.3	29.8	27.9	32.6	36.0
Montenegro	44.5	38.6	32.6	26.3	26.8	38.0	43.0
Ukraine	24.7	17.7	14.8	12.3	20.0	34.8	39.8

Source: wiiw.

Table 14

Broad Money

	2004	2005	2006	2007	2008	2009	2010
<i>End of period, annual nominal change in %</i>							
Albania (M2)	8.2	11.7	7.6	9.8	7.4	8.7	..
Bosnia and Herzegovina (M2)	21.0	17.6	21.1	25.1	13.6	-1.2	..
FYR Macedonia	17.0	15.0	25.0	29.3	11.2	6.0	12.2
Serbia (M3)	31.2	39.1	38.3	42.5	9.8	21.5	..
Montenegro (M21)	10.6	58.7	82.9	71.9	-14.3	..	..
Ukraine	31.9	54.4	34.5	51.7	30.2	-5.5	..

Source: European Commission, wiiw.

Table 15

Official Key Interest Rate

	2004	2005	2006	2007	2008	2009	2010
<i>End of period, %</i>							
Albania (refinancing base rate)	5.3	5.0	5.5	6.3	6.3	5.3	5.0
Bosnia and Herzegovina ¹	x	x	x	x	x	x	x
FYR Macedonia ²	10.0	8.5	5.7	4.8	7.0	8.5	4.1
Serbia (two-week repo rate) ³	16.4	19.2	14.0	10.0	17.8	9.5	11.5
Montenegro ⁴	x	x	x	x	x	x	x
Ukraine (refinancing rate) ⁵	9.0	9.5	8.5	8.0	12.0	10.3	7.8

Source: Eurostat, Bloomberg, wiiw, IMF.

¹ Currency board.² Monthly weighted average interest rate on Central Bank Bills auctions (28 days).³ 2002-2005: Weighted average interest rates on securities used in open market operations by Narodna banka Srbije.⁴ Unilateral euroization.⁵ Average.

Table 16

Exchange Rate

	2004	2005	2006	2007	2008	2009	2010
<i>Period average, national currency per EUR</i>							
Albania	127.67	124.19	123.08	123.63	122.80	132.06	137.79
Bosnia and Herzegovina	1.96	1.96	1.96	1.96	1.96	1.96	1.96
FYR Macedonia	61.34	61.30	61.19	61.18	61.27	61.32	61.52
Serbia	72.57	82.91	84.19	79.98	81.47	93.92	106.31
Montenegro	x	x	x	x	x	x	x
Ukraine	6.61	6.39	6.34	6.92	7.71	10.87	10.53

Source: wiiw, national sources, Thomson Reuters.

Notes

Periodical Publications of the Oesterreichische Nationalbank

For further details on the periodical publications of the OeNB, see www.oenb.at

Monetary Policy & the Economy

quarterly

This quarterly publication, issued both in German and English, offers analyses of current cyclical developments, medium-term macroeconomic forecasts and studies on central banking and economic policy topics. It also provides summary findings of macroeconomic workshops and conferences organized by the OeNB.

Focus on European Economic Integration

quarterly

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quarterly

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semianual

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Workshops – Proceedings of OeNB Workshops

three to four issues a year

The Proceedings of OeNB Workshops were introduced in 2004 and typically comprise papers presented at OeNB workshops at which national and international experts, including economists, researchers, politicians and journalists, discuss monetary and economic policy issues. Workshop proceedings are generally available in English only.

Working Papers

about ten papers a year

The OeNB's Working Paper series is designed to disseminate, and provide a platform for discussing, findings of OeNB economists or outside contributors on topics which are of special interest to the OeNB. To ensure the high quality of their content, the contributions are subjected to an international refereeing process.

Annual Report including the Intellectual Capital Report and the Environmental Report (Sustainability Report)

annual

The Annual Report of the OeNB provides a broad review of Austrian monetary policy, economic conditions, new developments in the financial markets in general and in financial market supervision in particular as well as of the OeNB's changing responsibilities and its role as an international partner in cooperation and dialogue. It also contains the OeNB's financial statements, its Intellectual Capital Report and its Environmental Report.

Conference Proceedings of the Economics Conference

annual

The Economics Conference hosted by the OeNB is an international platform for exchanging views and information on monetary and economic policy as well as financial market issues. It convenes central bank representatives, economic policymakers, financial market players, academics and researchers. The conference proceedings comprise all papers presented at the conference.

Conference Proceedings of the Conference on European Economic Integration

annual

The OeNB's Conference on European Economic Integration (CEEI) focuses on Central, Eastern and Southeastern European issues and the ongoing EU enlargement process. The Conference Proceedings comprise contributions to the CEEI and are published in English by a renowned international publishing house. For further details, see <http://ceec.oenb.at>

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