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Stability and Security.

Q2/09

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Recent Economic Developments

Developments in Selected Central, Eastern and Southeastern European Countries^{1,2,3}

Financial and real spillovers from global crisis interrupt fast catching-up process of recent years

1 Introduction

Following the collapse of Lehman Brothers in September 2008, the global financial crisis has intensified markedly, risk aversion has risen substantially, especially vis-à-vis emerging economies, and the repercussions of the crisis on the real economy have magnified significantly across the globe. The remarkable resilience Central, Eastern and Southeastern Europe (CESEE) had displayed until last fall, gave way to a situation in which emerging Europe – like emerging markets in general – was hit hard by the fallout of global developments through several channels. The region suffered from a marked tightening in external financing conditions, as international investor confidence waned and stiffening global credit conditions affected the region's major creditors.⁴ This resulted in a marked slowdown, in a few cases even a reversal, of capital inflows. In addition, as the real economy effects were transmitted across countries, the CESEE region experienced a dramatic fall in external demand and sluggish export markets. Moreover, once the downturn gained momentum, sentiment indicators began to plummet.

Capital inflows and exports had been key drivers of the favorable economic performance of the region in recent years. Credit expansion, in many CESEE countries increasingly financed by Western European parent banks extending funds to their subsidiaries in emerging Europe, had supported the growth process. Solid foreign direct investment (FDI) inflows had likewise played an important role. A substantial part of these capital inflows was used to strengthen production and export capacity, and investment in real estate increased noticeably in some countries in recent years, too.

With both these pillars of CESEE growth faltering in the fourth quarter of 2008, output growth in the region slumped. Granted, any growth model at work in emerging economies is under pressure today. Moreover, growth models differed considerably within the CESEE region. As a case in point, the degree of reliance on external funding varied widely, as did the contribution of exports to growth. Consequently, individual CESEE countries fared differently during the most recent downturn.

The CESEE region on average still performs somewhat more favorably than the euro area, but the growth differential has already narrowed substantially and could, according to current forecasts, contract to around 1 percentage point in 2009, down from 3 percentage points in recent years. On balance, the economic

¹ Compiled by Josef Schreiner and Claudia Zauchinger with input from Stephan Barisitz, Markus Eller, Sándor Gardó, Mathias Lahnsteiner, Thomas Reiningner, Tomáš Slačik, Zoltan Walko and Julia Wörz.

² Cutoff date: March 31, 2009 (and April 22, 2009, for fiscal data and IMF forecasts). This report focuses primarily on data releases and developments from end-October 2008 up to the cutoff date.

³ This report covers Slovakia and Slovenia, Bulgaria, the Czech Republic, Hungary, Poland and Romania as well as Croatia, Turkey and Russia. In addition, the Statistical Annex (p. 94–98) provides statistical information on selected economic indicators for Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Serbia, Montenegro and Ukraine.

⁴ For a more thorough exposition of sources and channels of financial spillovers, see e.g. Gardó, S., A. Hildebrandt and Z. Walko. 2008. *Walking the Tightrope: A First Glance on the Impact of the Recent Global Financial Market Turbulence on Central, Eastern and Southeastern Europe*. In: *Financial Stability Report 15*. OeNB. 119–140.

catching-up of CESEE will almost grind to a halt this year, marked cross-country differences notwithstanding.

The world economy is faced with its most serious crisis in many decades. Over the past few months, the downturn of the global economy has progressed at an unprecedented and almost breathtaking speed. Growth forecasts for the global economy and economic activity in advanced countries have repeatedly and substantially been revised downward; the IMF currently projects 2009 GDP growth for the world at $-1.3\%^5$, at -2.8% for the United States and at -4.2% for the euro area. The recession has reached all advanced economies and since the last months of 2008 has also been strongly feeding through to emerging countries, as the collapse of international trade amplified the negative effects resulting from the financial spillovers to emerging markets after the Lehman bankruptcy.

After September 2008, capital flows were driven increasingly by a “flight to safety,” i.e. capital was rechanneled to advanced economies, in particular to the United States. The macrofinancial risk profile of CESEE countries underwent a major reassessment. While all countries of the region were affected, those countries that displayed vulnerabilities like high external financing needs or widespread currency mismatches were particularly hit. As of mid-September 2008,

External environment for CESEE worsens dramatically, as advanced economies enter deep recession

Capital flows to emerging economies subside and global trade collapses after the demise of Lehman Brothers

Table 1

Substantial Financial Spillovers since Lehman Brothers Collapse

Change in selected indicators between September 12, 2008, and March 31, 2009

	Local currency (GBI) bond spread vs. the euro area, basis points	Euro-EMBIG spread vs. the euro area, basis points	5-year CDS premiums, basis points	GBI Index (local currency), %	Euro-EMBIG Index (EUR), %	Equity index (local currency), %
Slovakia	31	..	73	2.0	..	-21.7
Bulgaria	374	294	276	..	-0.6	-71.0
Czech Republic	146	..	155	0.4	..	-41.9
Hungary	524	360	371	-9.3	-7.0	-43.6
Poland	92	217	219	3.2	-3.7	-38.5
Romania	105	349	243	..	-4.2	-53.0
Croatia	..	394	273	..	-1.1	-56.6
Turkey	-290	171	123	16.1	1.5	-30.4
Russia	470	362	331	-3.5	-10.0	-32.1
Emerging market average	56	279	236	6.0	-2.9	-23.7
Africa	..	196	166	..	1.8	..
Asia	-20	74	66	8.2	5.3	-20.4
Europe	235	292	392	3.5	-3.8	-45.4
Latin America	33	266	425	9.3	-2.5	-21.6
Middle East	29	..	101	6.8	..	..
Euro area	0	..	..	7.8	..	-38.3
U.S.A.	-20	..	..	5.3	..	-36.1

Source: Thomson Reuters, Bloomberg, authors' calculations.

Note: Bold figures indicate negative performance relative to the emerging market average. For Bulgaria and Romania, the 10-year spread is used instead of the GBI spread. For Russia, the EMBIG Index (USD-denominated eurobonds) is used instead of the Euro EMBIG Index (EUR-denominated eurobonds).

⁵ Unless specified otherwise, percentage changes refer to the same period of the previous year.

Currencies came under considerable pressure...

financial markets in emerging Europe were on average affected more strongly than those of other emerging economies.⁶

Besides having a negative impact on bond and stock markets, the loss of investor confidence dealt a particular blow to currency markets. Most currencies of countries with floating exchange rates registered substantial losses against the euro between mid-September 2008 and end-March 2009, with depreciation running to more than 28% in Poland, around 20% in Turkey and Hungary, some 15% in Romania and around 10% in the Czech Republic. To put these developments into perspective, it should be recalled that all these currencies had strengthened very substantially in nominal terms until mid-2008 (the Romanian leu until mid-2007).

Depreciation was fairly gradual in the last few months of 2008 but accelerated in the first weeks of 2009 to reach its peak in mid-February (or early March in the case of Hungary), when currencies traded at values not seen for many years. It is worth mentioning that the accelerated weakening of some CESEE currencies took place in close context with international rating agencies starting to take a more pessimistic stance toward CESEE as well as with continuing downward revisions of growth forecasts. More recently, however, the situation improved somewhat, with most currencies having either stabilized or strengthened again. In fact, the Czech koruna appreciated substantially and also the zloty firmed since mid-February 2009, while the forint and the Turkish lira broadly stabilized since early March. The Russian ruble, which is pegged to a basket consisting of the U.S. dollar and the euro, weakened considerably despite substantial foreign exchange interventions, since its fluctuation band against the basket was gradually widened between November 2008 and January 2009. Since then, the ruble broadly stabilized, even firming somewhat in the second half of March. Nominal effective depreciation in the region was less pronounced than bilateral weakening versus the euro, because the single currency appreciated against the currencies of other major CESEE trading partners (especially the United Kingdom and the United States).

Besides factors affecting the whole CESEE region, exchange rate movements were apparently also driven by country-specific factors. In Poland, the depreciation of the zloty was – especially in early 2009 – fueled by the closure of foreign exchange call options, which Polish companies had sold in exchange for insurance against further zloty appreciation. In Hungary, concerns about the high external financing needs and, at times, also about political stability, weighed on the forint. In Russia, declining oil prices and the resulting terms-of-trade shock, but also increased political uncertainty in the aftermath of the war in Georgia and a lack of trust in the fragile banking system exerted pressure on the ruble.

In turn, the currencies of the hard peg countries in the CESEE region remained stable, and the tightly managed kuna softened moderately. The Slovak koruna traded steadily against the euro during the last months before Slovakia introduced the euro on January 1, 2009, as the second country of the group covered in this report (after Slovenia in 2007). The changeover to the single currency went

⁶ *The unfolding impact of the crisis on financial markets in CESEE countries is reviewed in greater detail in box 1. In addition, the Financial Stability Report 17 of the OeNB further explores the repercussions of the financial crisis on financial and banking sectors in CESEE.*

Chart 1

Exchange Rate Developments against the Euro¹

September 1, 2008 = 100

Cutoff date: March 31, 2009



Source: Thomson Reuters.

¹ An increase in value means a nominal appreciation.

smoothly, with a substantial share of the initial euro banknote stock delivered by the Oesterreichische Nationalbank.

As is well known, currency depreciation works in two ways: First, it bolsters competitiveness. For CESEE, this is especially relevant, as most of the countries of the region are very open and export-oriented economies. On average, exports account for more than 50% of GDP and contribute strongly to growth. In the fourth quarter of 2008, however, as global trade slumped, export growth decreased markedly and in most countries turned even negative.

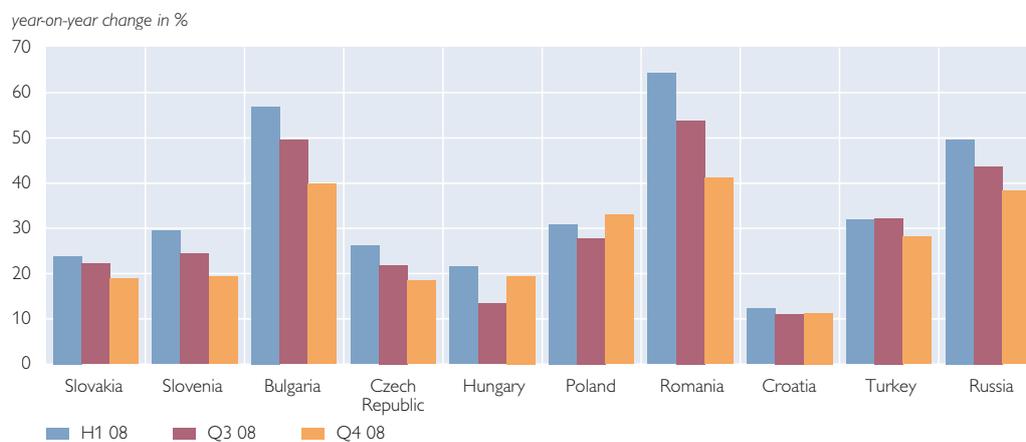
Second, depreciation increases the debt burden of economic agents that have taken out foreign currency-denominated credit without proper hedging. Foreign currency loans account for a substantial share in total loans to the nonbank non-government sector in many but not all countries of the region. Where this share is high, depreciation has a dampening effect on domestic demand, as debtors tend to cut spending in order to offset higher debt service obligations. Unhedged borrowing is usually concentrated in the household sector. Foreign currency loans are especially popular in Hungary and Croatia, where they constitute around 65% of total credit, and in Bulgaria and Romania, where they amount to around 55% of total credit. In Romania, this is somewhat mitigated by the fact that overall credit to the nonbank nongovernment sector is considerably smaller (relative to GDP) than in the other three countries. In Hungary, Romania and Croatia, but also in Poland, households' exposures to foreign currency loans are high, which is not so much the case in Bulgaria.

Another important transmission mechanism of the financial crisis is that it can restrict credit supply by banks, which has immediate consequences for debt-financed demand components. A deteriorating creditworthiness of borrowers due to (expected) insolvencies or falling asset prices or a more unfavorable outlook for sales and profits may raise risk premiums or induce banks to restrict the volume of

...with ambiguous consequences for economic activity

First signs of a credit squeeze...

Domestic Credit to Nongovernment Nonbanks



Source: Eurostat, national central banks.

loans (beyond the reduction in credit demand that ensues from the downturn of the real economy). Moreover, to the extent that credit is foreign-funded, a decrease of cross-border capital flows may likewise depress credit supply.

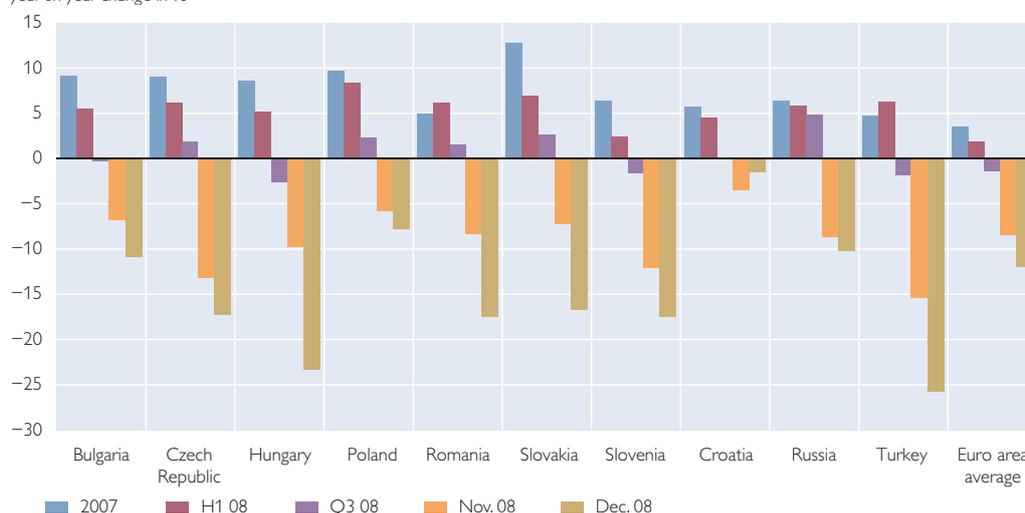
In fact, annual domestic credit growth to the nonbank nongovernment sector slowed substantially in most CESEE countries since mid-2008, with growth rates falling by more than 10 percentage points in Romania, Bulgaria, Slovenia and Russia. In Croatia, credit expansion remained broadly stable at comparatively low growth rates. An acceleration of credit expansion was observed in Hungary and Poland in local currency terms. To an important extent, this can, however, be explained by currency depreciation in an environment of widespread foreign currency-denominated credit. This also holds for Russia. Monthly data show that credit growth basically came to a standstill in a number of countries, as recorded in particular for Bulgaria, the Czech Republic, Slovakia and Slovenia toward the end of 2008.

In most countries, slower credit expansion was mainly traceable to credit developments in the corporate sector, where credit growth decelerated more markedly than in the household sector. This relates, on the one hand, to lower demand for investment credit, given the fast changing outlook for industrial production and exports. Following a pronounced weakening of external demand, the export-oriented and often rather export-dependent industrial sector of the region experienced a severe contraction, with industrial output declining by nearly 15% year on year on average in December 2008, capacity utilization sinking to long-term lows and export expectations deteriorating. In the majority of CESEE countries, industrial output declined more strongly than in the euro area as a whole. Notable exceptions are Poland and Croatia. While year-on-year output growth in industry in the euro area decelerated by around 14 percentage points between December 2007 and December 2008, the CESEE countries witnessed an average deceleration of nearly 20 percentage points, though from higher initial levels, so that toward the end of 2008, industrial production dynamics were rather similar in the two regions.

Chart 3

Industrial Production

year-on-year change in %



Source: Eurostat, wiiv.

Present capacity utilization generally lies at somewhat lower levels in CESEE than in the euro area (especially in Bulgaria and Slovakia); here, too, the decline in most CESEE countries was somewhat more pronounced than the euro area average.

However, apart from falling credit demand, there is also evidence for tightening credit supply toward the end of 2008. Bank lending surveys covering the second half of 2008 in Hungary and Poland indicated that banks' willingness to lend decreased sharply. Banks had already reported in previous surveys that they would tighten lending, but – as borne out by the most recent surveys – the deepening crisis led to a much more restrictive stance than previously intended. Banks tightened their price and nonprice credit conditions and indicated that this tightening will continue during the first half of 2009, primarily due to clients' deteriorating payment ability, negative economic prospects and higher funding costs as well as difficulties in accessing funding. Although banks did not yet see a significant deterioration in their portfolios, risks are expected to materialize much more strongly over the coming quarters.

Banking sector deposits developed unevenly across countries in the fourth quarter of 2008. While annual domestic deposit growth remained broadly constant or even accelerated in Hungary, Poland and Slovakia, it decelerated in the Czech Republic, Slovenia and, above all, Bulgaria and Romania. In terms of quarterly changes, deposit growth stagnated in Slovenia and turned slightly negative in Bulgaria in the fourth quarter. The banking systems in some European non-EU countries (including Russia and Croatia) experienced temporary deposit withdrawals in October and November 2008, which stopped once the authorities were taking measures to strengthen confidence in the banking system. In addition, Russia registered a marked redollarization of deposits (and to a lesser extent of loans) in recent months, while a much more moderate shift from local currency- to euro-denominated deposits took place in Croatia.

Chart 4

Sentiment Indicators for CESEE EU Member States


Source: European Commission.

... and deteriorating consumer and corporate sector confidence...

A worsening of the economic outlook usually affects consumer and corporate confidence, and a deterioration in confidence has, in turn, a negative impact on economic activity. Expectations of declining profits dampen the propensity to invest, and the fear of unemployment drives up precautionary savings by households.

Recently, the interplay of these forces has been patently evident in the CESEE region, where – as elsewhere – a marked deterioration in confidence is clearly visible in the data. As the Business and Consumer Survey of the European Commission shows, general economic sentiment has declined considerably since 2007 – often from high levels. The decline turned into a slump in October 2008, and by February 2009, confidence had reached historical lows in most countries for which comparable data are available (i.e. the EU Member States), with industrial sentiment falling somewhat more sharply than consumer sentiment.

... contribute to a sharp slowdown in economic activity

In response to financial and real spillovers from the global crisis, economic activity slowed markedly in the CESEE region in the fourth quarter of 2008.⁷ The implosion of external demand slashed CESEE exports, which had been an important driver of GDP growth in recent years, so that all countries recorded negative export growth year on year.

How did this slowdown play out in more detail? Average growth in the region declined to -0.1% in the final quarter of 2008 after 4.8% in the third quarter, with Hungary, Slovenia and Turkey reporting a contraction of economic activity. The deceleration – which was on average more pronounced in CESEE than in the euro area – was strongest in Turkey, where the economy had already started to contract considerably in the second quarter of 2008, followed by Romania, Russia

⁷ At that time, a contraction was also observable in CESEE countries not covered in this report. With the slump having manifested itself already several quarters earlier, all three Baltic countries are now in a deep recession (in particular Latvia, but also Estonia). Some of the catch-up gains reaped in the earlier part of the decade, when the Baltic states grew very buoyantly, have thus been canceled out. Ukraine is another CESEE economy that has entered a phase of severe economic contraction. There, external imbalances, financial fragility, a massive terms-of-trade shock (as metal prices collapsed) and pronounced weaknesses in the policymaking process triggered a downward spiral resulting in double-digit negative GDP growth rates in early 2009.

and Slovenia. The deceleration was somewhat less pronounced in Croatia, yet started from lower levels. Despite the substantial slowdown of economic activity, all CESEE countries covered in this report except Turkey and Hungary still outperformed the euro area in terms of growth. Moreover, the wide range of growth outcomes in the fourth quarter – from –6.2% to +3.5% – is a remarkable aspect of recent GDP development in the region, underlining the continued intra-regional diversity in economic performance, even in the general setting of a substantial downturn.

It is noteworthy that the slowdown in economic activity in CESEE set in later – but more forcefully – than in the euro area. While in the euro area economic activity had been moderating already from the second quarter of 2008, most CESEE countries were first hit by the downturn in the final quarter of 2008. Euro area growth decelerated by 3.6 percentage points between the fourth quarter of 2007 and the fourth quarter of 2008, which contrasts with 6 percentage points recorded on average for the country group under observation in this report (see table 2).

The slowdown encompassed all GDP components and was particularly pronounced in the external sector. Exports suffered from faltering external demand, and growth rates declined to levels of between –0.2% in Romania and –8.7% in the Czech Republic. Weak domestic demand in turn put a damper on imports, with growth rates ranging from 0.4% in Poland to –23.0% in Turkey. The contribution of net exports to growth declined in the Central European countries to levels of between 0.7 percentage points (Slovenia) and –1.9 percentage points (Czech Republic). By contrast, in Southeastern Europe, the contribution of net exports to growth increased (especially in Croatia and Romania) as imports contracted more strongly than exports. Currency depreciation did not yet have a markedly positive effect on the composition of growth in countries with floating exchange rates, which is possibly related to J-curve effects (except for Romania, where depreciation had started earlier than elsewhere in the region).

Table 2

Gross Domestic Product (Real)

	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Annual change in %</i>								
Slovakia	10.4	6.4	10.5	14.3	9.3	7.9	6.6	2.5
Slovenia	6.8	3.5	7.5	5.4	5.7	5.5	3.9	–0.8
Bulgaria	6.2	6.0	4.9	6.9	7.1	7.1	6.8	3.5
Czech Republic	6.0	3.2	5.8	5.9	4.4	4.4	4.0	0.2
Hungary	1.1	0.5	0.6	0.5	1.7	2.1	0.8	–2.3
Poland	6.7	4.8	5.7	7.2	6.2	5.8	5.2	2.3
Romania	6.2	7.1	5.8	6.8	8.2	9.3	9.2	2.9
Croatia	5.5	2.4	4.8	3.5	4.3	3.4	1.6	0.2
Turkey	4.7	1.1	3.2	4.2	7.3	2.8	1.2	–6.2
Russia	8.1	5.6	7.7	9.0	8.7	7.5	6.0	1.0
Euro area	2.6	0.8	2.6	2.1	2.1	1.4	0.5	–1.5

Source: Eurostat, national statistical offices.

On average, growth of private consumption declined at a somewhat slower pace than growth of the other components, often remaining in positive territory. This is attributable to the still comparatively robust development in Central European countries, where private consumption growth remained broadly stable and declined markedly only in Hungary. Credit for this relatively solid performance was due to the still favorable development of real wages in the fourth quarter amid declining inflation and continued employment growth in most CESEE countries.

The deterioration in gross fixed capital formation (GFCF) was more pronounced, however. All countries reported a substantial decrease in the growth rate of this component in the fourth quarter of 2008; in Hungary, Slovenia and Turkey, investments even contracted. As mentioned earlier, this development is largely traceable to the unfavorable outlook of the industrial sector of the CESEE region against the backdrop of worsening financing conditions and sluggish external demand. Residential investments also slowed in several countries, but less so than other GFCF components, presumably as numerous ongoing projects were being completed.

No quick recovery
on the horizon

Available activity indicators point to a further deterioration in the coming quarters, which is also reflected in recent GDP forecasts for the countries of CESEE. Projections have repeatedly been revised downward and most forecasters already see a recession, not only for individual countries of the region, but also for the region as a whole. The most recent economic developments based on high-frequency data as well as the growth outlook for the region – including the OeNB projections for the Czech Republic, Hungary and Poland – are discussed in greater depth in box 2.

Economic slowdown
has had substantial
dampening effect on
inflation...

The economic downturn has already had a substantial dampening effect on price increases, with inflation having decelerated markedly in most countries covered in this report. It has reached low or moderate levels in Central Europe and Croatia, while remaining more elevated in the other countries. For example, inflation is coming down fast in Bulgaria, while staying at persistently high levels especially in Russia. As at February 2009, year-on-year inflation rates ranged between 1.3% in the Czech Republic and 13.5% in Russia. Besides fading demand-pull pressure, this development can be traced back to declining prices of food and energy (especially oil) in world markets (which is in turn a consequence of the global economic slump). Accordingly, the contribution of these two components to inflation has decreased at an above-average rate in the past months, and services have again become the most important inflation component in a number of countries, especially in Central Europe. Weakening economic dynamics are clearly reflected in core inflation rates, which came down just as strongly as headline inflation. From September 2008 to February 2009, core inflation declined most markedly in Bulgaria (namely by 7.4 percentage points). Inflation expectations for the coming twelve months likewise moderated notably in all countries except Hungary. According to the Business and Consumer Survey of the European Commission, the majority of the people in Slovenia and the Czech Republic even expect price levels to remain unchanged in 2009.

... but leads to
temporary increase
in ULC

Favorable labor market developments together with rising skill shortages and in some countries outward migration have spurred wage growth in the region over the last few years, and the economic crisis has not yet brought about a major change of this situation. In the fourth quarter of 2008, growth of compensation

Table 3

Consumer Price Index (here: HICP)

	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
	Annual change in %							
Slovakia	1.9	3.9	1.4	2.4	3.4	4.0	4.5	3.9
Slovenia	3.8	5.5	3.7	5.5	6.5	6.4	6.2	3.1
Bulgaria	7.6	12.0	9.0	11.2	12.4	14.0	12.5	9.0
Czech Republic	3.0	6.3	2.7	4.9	7.6	6.7	6.5	4.4
Hungary	7.9	6.0	7.3	7.1	6.9	6.8	6.3	4.2
Poland	2.6	4.2	2.4	3.7	4.5	4.3	4.4	3.6
Romania	4.9	7.9	5.1	6.8	8.0	8.6	8.2	6.9
Croatia ¹	2.8	6.1	2.9	4.9	6.0	6.6	7.4	4.5
Turkey	8.8	10.4	7.1	8.2	8.8	10.3	11.7	10.9
Russia ¹	9.1	14.1	9.0	11.5	12.9	14.8	14.9	13.8
Euro area	2.1	3.3	1.9	2.9	3.3	3.6	3.8	2.3

Source: Eurostat, national statistical offices, wiiw.

¹ CPI.

per employee in the whole economy decelerated somewhat only in Bulgaria and Romania (though remaining at levels of or even above 20% year on year), while it stayed roughly constant in the other countries. The Czech Republic even recorded a slight increase. With inflation decreasing, real wage growth accelerated in most countries. By contrast, labor productivity developed much less favorably. Declining output coupled with a lagging employment response to deteriorating economic conditions led to negative productivity growth rates in Slovenia, Poland and Hungary. Some notable, though declining, productivity advances were observed in Bulgaria and Romania only. Accordingly, ULC growth in local currency accelerated in all countries, with Hungary, Bulgaria and Romania recording the largest increases. Weakening exchange rates in the final quarter of 2008 in some countries translated into somewhat lower growth rates of ULC as measured in euro. Overall, however, the increases in all CESEE countries were still noticeably higher than those in the euro area. They were particularly high in Bulgaria and Slovenia. The pickup in ULC dynamics in the fourth quarter of 2008, however, was most likely a cyclical phenomenon. Developments in early 2009 already point toward a deceleration. Especially tax revenue data suggest a considerable decrease in wage growth in some countries. In countries with flexible exchange rates, currency depreciation will further contribute to a dampening of ULC growth in euro terms in the first quarter of 2009, as the recent firming of currencies has only partially offset their previous weakening.

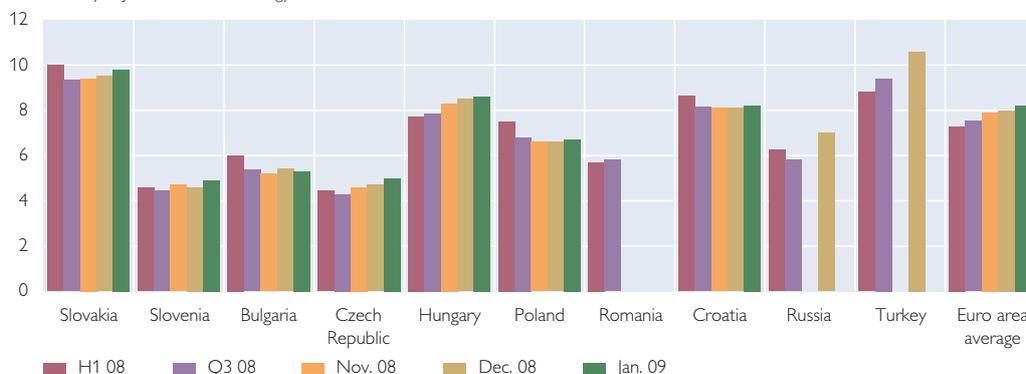
Some effects of the economic downturn on labor markets started to materialize recently, though not yet in all countries. Moreover, compared to the euro area, CESEE labor markets have so far been less affected, which is most likely attributable to the robust growth performance observed in the region until the third quarter of 2008. In the last few months of 2008, monthly unemployment figures tended to slowly increase in most CESEE countries to reach levels between 4.9% (Slovenia) and 9.8% (Slovakia) in January 2009. In a number of countries (including the Czech Republic, Poland, Slovenia and Bulgaria), unemployment is still noticeably lower than in the euro area. Nevertheless, the impressively positive labor

Downturn slowly feeding through to labor markets

Chart 5

Development of Unemployment Rates

% , seasonally adjusted, LFS methodology



Source: Eurostat, wiw.

Note: Data for Russia unadjusted.

market dynamics of the past few years had come to an end after mid-2008. Recent forecasts project accelerated rises in the unemployment rate in the countries of the region during this year. In the same vein, employment data herald the changing trends on CESEE labor markets. In the fourth quarter of 2008, employment still grew, but at declining rates, in all countries but Hungary, while employment rates started to decrease.

Deteriorating current account balances ...

With the exception of Romania and Turkey, the combined current and capital account deficits of the countries of the region increased somewhat in 2008 and especially in the fourth quarter. Sluggish domestic demand led to a pronounced reduction of imports of goods and services, and slumping external demand cut even more deeply into exports. This resulted in a marked deterioration of the goods and service balance in many countries, which was further aggravated by adverse developments in the terms of trade in most countries, but especially in the case of Russia.

The major exceptions in this respect are Romania and Turkey, where a positive development of the service balance in both countries and also of the trade balance in the case of Turkey caused the current account deficit of the country to decrease. In some countries, especially in Poland and Bulgaria, current transfers contributed notably to rising current account deficits. This could be traceable to a reduction in workers' remittances following the economic slowdown in the EU-15 countries, which received most of the migrants from CESEE in the middle of the decade. Moreover, there is anecdotal evidence – especially for Poland – of substantial return migration during previous quarters. In Bulgaria, the suspension of EU funds of EUR 500 million due to irregularities concerning public administration may have contributed to declining current transfers. Income balances in general remained a drag on the current account. In the fourth quarter of 2008, however, a notable reduction was observed in some countries (especially in the Czech Republic and in Poland) amid a decrease in repatriated profits, which was likely to be related to the economic slowdown.

Table 4

Current Account Developments

	Goods and services balance			Income balance			Combined current and capital account			Net FDI			Basic balance		
	2007	2008	Q4 2008	2007	2008	Q4 2008	2007	2008	Q4 2008	2007	2008	Q4 2008	2007	2008	Q4 2008
	<i>% of GDP</i>														
Slovakia	-0.5	-1.8	-3.7	-4.3	-3.5	-2.3	-4.8	-5.4	-6.5	3.6	3.4	7.0	-1.2	-2.0	0.5
Slovenia	-1.4	-2.6	-4.5	-2.1	-2.7	-2.8	-4.4	-6.1	-8.3	-0.8	0.7	2.4	-5.2	-5.4	-5.9
Bulgaria	-21.4	-22.5	-25.7	-1.6	-3.2	-2.7	-20.6	-23.5	-28.4	21.8	14.6	8.1	1.3	-8.9	-20.3
Czech Republic	5.0	5.0	1.0	-7.7	-7.8	-6.7	-1.2	-2.4	-5.3	4.5	4.3	4.1	3.3	1.9	-1.1
Hungary	1.4	0.9	-0.2	-7.4	-8.1	-7.9	-5.4	-7.4	-9.4	1.7	3.1	5.6	-3.7	-4.3	-3.8
Poland	-2.9	-3.6	-4.0	-3.8	-3.2	-2.4	-3.6	-4.3	-5.5	4.2	2.3	1.6	0.6	-1.9	-3.9
Romania	-14.0	-12.7	-9.6	-3.4	-4.1	-4.1	-12.8	-11.9	-9.9	5.7	6.8	5.9	-7.1	-5.1	-4.0
Croatia	-7.3	-8.2	-17.3	-2.7	-3.3	-1.9	-7.5	-9.3	-16.8	8.1	5.8	5.5	0.6	-3.4	-11.3
Turkey	-5.1	-4.7	-2.9	-1.1	-1.1	-1.2	-5.9	-5.5	-3.7	3.1	2.1	2.4	-2.8	-3.5	-1.4
Russia	8.6	9.1	4.8	-2.3	-2.9	-2.3	5.2	6.0	2.2	0.7	1.0	0.3	6.0	7.0	2.5

Source: Eurostat, national central banks.

Basic balances (i.e. the combined current and capital account balance plus net FDI), which are useful indicators of external financing needs, increased in most countries in 2008. This development was caused by deteriorating current and capital account balances in most countries, but in Bulgaria, Poland and Croatia, also lower net FDI inflows contributed to higher deficits/lower surpluses. Romania was the only country among the group that reported an improvement in its basic balance, which was due to the favorable development of the trade balance. For the other components of the financial account, developments were mixed. Higher outflows of portfolio investments were observed in the Czech Republic, Poland and to a lesser extent also in Romania. Outflows in other investments were observed in Slovenia and Bulgaria.

Intra-year developments are highly interesting in this context, as the changing capital flow dynamics after the demise of Lehman Brothers had strong effects on financial account developments in the CESEE region during the fourth quarter of 2008. Financial account positions worsened across the entire region in the final quarter of 2008, but remained in positive territory for most countries. An exception is Russia, where fourth-quarter capital outflows from the nonbank private sector amounted to about EUR 100 billion, pushing the financial account deeply into the red. Following further, yet more moderate outflows in January 2009, outflows largely ceded in February 2009. Relatively pronounced outflows were also observed in Turkey, namely to the tune of EUR 9 billion in the fourth quarter of 2008.

Meeting external financing needs has become increasingly difficult against the backdrop of the financial turmoil. To ease acute pressures, some countries called on international financial institutions (especially the IMF) and the EU for support. Hungary and Romania entered into IMF Stand-By Arrangements (as did Ukraine, Latvia, Belarus and Serbia). IMF funds were complemented by loans from the World Bank, the EBRD as well as the European Union (and in the case of Latvia,

... contributed to need for international assistance in the region

... which was supplemented by government measures to a varying extent

individual EU countries). In return, the countries concerned committed themselves to fiscal restraint, banking sector support programs and moderation, especially concerning public sector wages and pensions.

Rapidly deteriorating economic conditions and the increasingly gloomy outlook for the region prompted government action across the region. At the same time, recent developments underscored that the macroeconomic policy leeway is much more constrained in CESEE countries than in advanced industrial economies. In fact, room for maneuver is almost nonexistent in some countries, what with constraints to finance fiscal deficits, what with limits to monetary policy resulting from exchange rate commitments and/or a high degree of currency substitution. When we take a closer look at the crisis-response measures in the CESEE countries, the following picture emerges:

In accordance with the proposal of the European Commission, all CESEE EU Member States increased their deposit guarantees to the equivalent of EUR 50,000. While Hungary made a political declaration of guaranteeing deposits 100%, Slovenia and Slovakia actually implemented a full guarantee. The non-EU Member States covered in this report also implemented changes in their guarantee schemes, raising the deposit guarantee level to EUR 50,000 in Croatia, to EUR 19,400 in Russia and to EUR 23,500 in Turkey. The latter country plans to further increase this level.

The possibility of state capital injections into banks has been established throughout the region, but banks have been reluctant to draw on that form of relief. So far, recapitalizations were effected only in Romania (EximBank and CEC Bank) and in Russia. In the latter case, the amount channeled into the banking sector was substantial.

More generally, fiscal policy responses to the crisis have varied across countries. While the Czech Republic, Poland and Slovenia decided on fiscal stimulus packages of around 1% of GDP in 2009 (basically in line with the EU and the euro area average), the stimulus is larger in the case of Russia (more than 5% of GDP). At the other end of the spectrum, the net impact of measures in Bulgaria, Romania and Hungary is either neutral or even deficit-reducing, i.e. procyclical.

This variety in fiscal policy responses may be explained by the following factors: First, most of the countries of the region are small and open economies. A strong fiscal stimulus would therefore very likely lead to an increase in imports (and thus a delay in the correction of external imbalances) rather than to higher domestic demand. Second, for countries with high external financing needs, fiscal expansion might weaken investor confidence and thus complicate access to foreign funds. Third, government balances are already under stress in a number of countries, which restricts the room for increased deficit spending.

In 2008, Hungary and Romania reported a budget deficit of more than 3% of GDP. Hungary has been subject to an excessive deficit procedure since 2004. An excessive deficit procedure will be opened against Romania and presumably also against Poland. Only Bulgaria reports a fiscal surplus, which it aims to keep also in the medium run. In 2008, budget deficits increased in most countries (notably in Romania, where the procyclical loosening already seen in 2007 continued, but also in Poland and Slovenia). Only Hungary reported a lower deficit in 2008 compared with 2007, as it had to continue its consolidation efforts to maintain sol-

Table 5

General Government Budget Balance

	2004	2005	2006	2007	2008	2009 ¹
	% of GDP					
Slovakia	-2.3	-2.8	-3.5	-1.9	-2.2	-2.8
Slovenia	-2.2	-1.4	-1.3	0.5	-0.9	-3.2
Bulgaria	1.6	1.9	3.0	0.1	1.5	2.0
Czech Republic	-3.0	-3.6	-2.6	-0.6	-1.5	-2.5
Hungary	-6.4	-7.8	-9.2	-4.9	-3.4	-2.8
Poland	-5.7	-4.3	-3.9	-1.9	-3.9	-3.6
Romania	-1.2	-1.2	-2.2	-2.5	-5.4	-7.5
Croatia	-4.3	-4.0	-2.5	-1.6	-2.2	-2.5
Turkey	-4.5	-0.6	-0.1	-1.2	-1.3	-2.5
Russia	4.9	8.2	8.4	6.0	4.8	..

Source: Eurostat, wiiw, national statistics.

¹ As forecast by the European Commission (January 2009), which is due to release new fiscal balance data in its Spring 2009 Forecasts on May 4, 2009. Developments since January 2009 suggest that headline fiscal deficits will be revised upward in several CESEE countries.

vency, and Bulgaria achieved an increase in its budget surplus. The ongoing downturn will put pressures on general government balances during 2009.

In light of the recent economic slowdown and weakening currencies, CESEE central banks with monetary policy leeway have been faced with the challenge of finding the right balance between (1) stimulating demand by lowering interest rates and letting currencies depreciate further and (2) controlling adverse balance sheet effects of such policies on domestic demand but also on financial stability. Moreover, central banks with pegged exchange rates had to decide about how to react to shifts in risk premiums and, in the case of Russia, to substantial terms-of-trade shocks (due to the collapse of oil prices).

Against this background, the direction of monetary policy in the region was heterogeneous. In October and early November 2008, the central banks of Russia and Hungary raised their policy rates – Russia to safeguard confidence in the ruble and Hungary to stem depreciation pressures before the completion of an IMF arrangement. Once the agreement was struck, the Hungarian central bank gradually reversed previous rate hikes from late November onward. Some monetary easing was also observed in the other countries; somewhat more gradually in the Czech Republic and in Slovakia (in the latter case, with a view to keeping policy rates in line with the euro area in the run-up to the introduction of the euro at the beginning of 2009) and more noticeably in Poland and in Turkey.

In addition to deteriorating economic conditions, monetary policy decisions frequently made reference to an improving inflation outlook. Many central banks, however, still intervened to support their currencies, either verbally (e.g. the Czech Republic, Poland, Romania, Hungary) and/or through direct market interventions (e.g. Croatia, Hungary, Russia, Romania). In addition, the Polish government sold EU funds on foreign exchange markets to support the zloty, and more recently a similar step was announced by Hungary.

Against the background of the crisis, the debate on the timing of euro adoption has regained some momentum. Members of monetary union are not exposed to the risk of currency crises and in times of substantial turbulence in global finan-

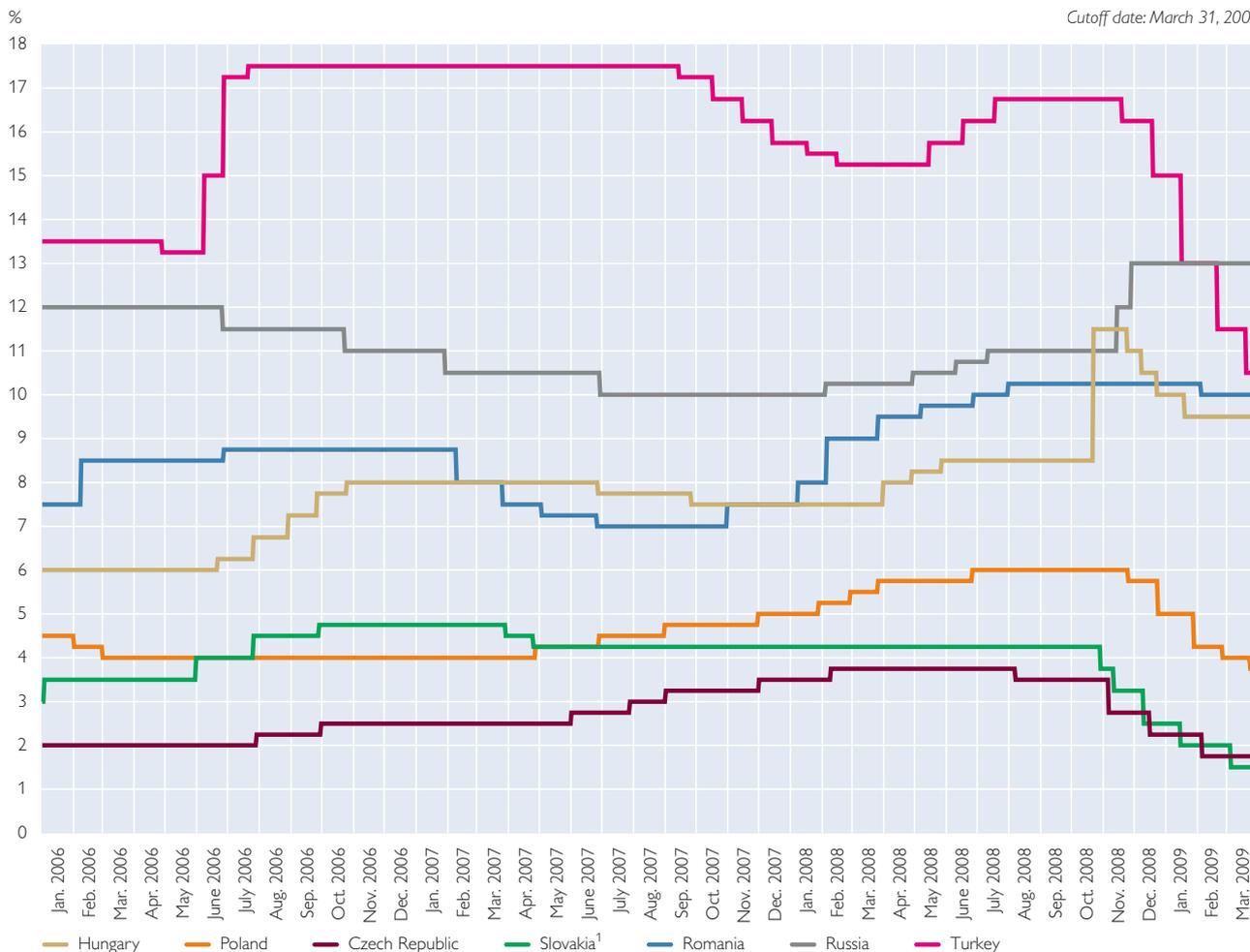
**Challenging times
for monetary policy**

**Crisis sparked some
renewed discussion
about timing of euro
adoption**

Chart 6

Policy Rate Developments in CESEE

Cutoff date: March 31, 2009



Source: National central banks.

¹ As of January 1, 2009, ECB main refinancing rate.

cial markets this is a considerable advantage, from which – among CEE countries – Slovenia and now also Slovakia benefit. The idea of speeding up preparations for euro adoption to be able to introduce the common currency at an earlier stage than previously envisaged has gained in popularity in several countries, and the governments of Poland, Hungary and Bulgaria have made statements to this effect. Others have argued that joining ERM II, which is one of the preparatory steps to qualify for eventual euro area membership, is too risky given that volatility is high. The Polish government only recently hinted that it considers giving more weight to this line of reasoning in its deliberations about the monetary integration of Poland.⁸ Another line of thought that has recently gained attention is that of retaining competitiveness in the longer run under fixed exchange rates or in a currency union. Looking ahead, this latter point may also be of relevance for Slovenia and

⁸ See the country section on Poland for more details.

Slovakia, given that over the last few months the euro has appreciated substantially against a number of CESEE currencies.

The accession negotiations with the EU candidate countries Croatia and Turkey have been proceeding. In the case of Croatia, negotiations are now ongoing in 22 out of 35 chapters and seven chapters have already been closed provisionally. The provisional closing of another eleven chapters is blocked, however, due to an unresolved border dispute with Slovenia. As this issue lingers on, time is running out to conclude negotiations by the end of this year, as originally envisaged.

Of the eight opened negotiation chapters, Turkey and the European Union have managed to provisionally close only one chapter. As Turkey does not, as yet, meet all of its statutory obligations – specifically with regard to extending the existing customs union with the EU to Cyprus – opening chapters on these matters has been delayed. Moreover, the EU will not close any other chapter provisionally unless Turkey has met all of its statutory obligations.

To sum up, the ongoing global crisis has put the growth process in the CESEE countries to the test. At the current juncture, challenges are manifold, and the dependence of the region on global financial and economic developments remains high. The crisis has exposed some of the macrofinancial vulnerabilities in the region, while also confirming the diversity across CESEE countries in terms of performance and also, at least to some extent, in terms of crisis-response measures.

In recent months, Europe as a whole has begun to pay greater attention to economic and financial developments in CESEE countries, and in particular also to the need to be prepared to actively support individual CESEE countries. This is a reflection of Europe's increasing recognition of the fact that the intense trade, FDI and financial sector links between many Western European countries and the CESEE region are too important to take a laissez faire approach to adverse developments in individual member countries. As for policy action, the doubling of EU macrofinancial assistance for Member States in need, to a total of EUR 50 billion, is a case in point. Moreover, the additional funds Europe is providing to beef up IMF resources will also help deal with adverse developments in individual CESEE countries.

Some further progress in EU accession negotiations

Box 1

Financial Market Developments in Central, Eastern and Southeastern Europe: Spillovers from the Global Financial Crisis

This box reviews financial market developments in CESEE in a cross-country perspective and in comparison with developments in the euro area and in non-European emerging markets. The macroeconomic implications of financial market developments are analyzed and discussed in the main part of Recent Economic Developments in this issue.

After CESEE countries had been hit hard by the wave of market corrections from mid-September until end-October 2008 (see box 1 in Focus on European Economic Integration 2/08), financial market conditions remained tense over the review period (October 28, 2008, to April 10, 2009). Developments across the countries were rather divergent in most financial market segments. Among the different financial market segments, exchange rates seem to have been affected most, hitting record lows against the euro and prompting central bank interventions in many countries (see main part of the report). While money market developments differed considerably, local currency government spreads declined in the majority of countries. Euro-bond spreads and credit default swap (CDS) premiums stayed at elevated levels, while becom-

ing more volatile. However, both segments started to show some downward tendencies in late February/early March 2009. Similarly, stock markets managed to recover somewhat in that time period, after the downward trend had decelerated the months before.

Over the review period, money market spreads against the euro area moved in quite different directions across the CESEE region, ranging from -360 basis points in Turkey to +660 basis points in Russia. The sharp contraction in Turkey is largely associated with sizeable policy interest rate cuts (-625 basis points), which by far exceeded the rate cuts of the ECB (-225 basis points). In contrast, spreads widened significantly in Russia, reflecting a liquidity squeeze on the interbank market as well as the central bank's monetary tightening aimed at supporting the ruble. Due to tightened liquidity conditions, Croatian spreads recorded an increase of 540 basis points, while spreads in Bulgaria increased by some 160 basis points. In the Czech Republic, the interest rate differential toward the euro area became positive in terms of 3-month money market rates by mid-November 2008 (after having been negative since March 2005), as the differential in key policy rates turned positive as well. In comparison with the countries already mentioned, spreads remained broadly unchanged in Poland, Hungary and – albeit at a much higher level – in Romania.

In most of the CESEE countries, local currency government bond spreads declined over the review period. Turkey's local currency bond market performed best, as spreads were down by 1,000 basis points. Spreads widened significantly only in Russia (+330 basis points) and marginally also in the Czech Republic (+20 basis points). All countries except for Turkey underperformed global developments, since spreads declined by less than the 100 basis points recorded by the JPM GBI-EM spread.

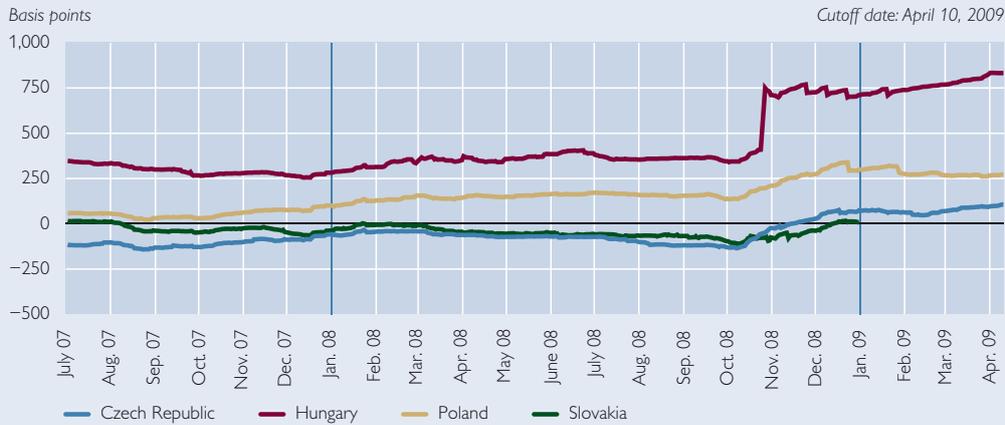
Eurobond spreads have remained at elevated levels since October 2008. Despite high volatility in some countries, most of the CESEE countries' eurobond spreads stayed almost unchanged (with changes ranging from -20 basis points in Bulgaria to +30 basis points in Hungary), while the average emerging market spread (JPM Euro EMBI Global Index) declined somewhat more noticeably (-40 basis points) over the review period. Again, Turkey represents an exception, with spreads having contracted substantially (-500 basis points). Having ranked among the countries with the highest euro-denominated eurobond spreads at end-October 2008, Turkey's spreads stood below those of Romania, Bulgaria, Croatia and Hungary at the cutoff date. Romania's spreads declined markedly as the agreement on an IMF-led multilateral financial support package was coming into reach and was then eventually announced in March 2009 (-150 basis points since end-October 2008). Finally, spreads on Russian U.S. dollar-denominated eurobonds decreased by 240 basis points, which was roughly in line with the decline observed for the overall market (JPM EMI Global Index).

Developments in CDS markets were characterized by much higher volatility over the review period (partly due to decreasing liquidity). For example, Russia's 5-year CDS (representing the most volatile in our country selection) was traded between 400 and 1,000 basis points, whereas Slovakia's 5-year CDS (being the least volatile in our sample) moved in a range from 100 to 280 basis points. While CDS premiums still trade well above pre-September 2008 levels, some downward tendencies were recently seen in all countries (since late February 2009 in the Czech Republic, Poland and Slovakia, since March in the rest of the countries). With the exception of Hungary, CDS premiums of those countries which had initially recorded the strongest increases also showed the most pronounced downward corrections in absolute terms in March and early April 2009 (Bulgaria, Croatia, Romania, Russia and Turkey). Similar to developments in the eurobond market, Romania's CDS spreads decreased notably due to the international financial support package. Russia and Turkey performed best, with CDS premiums declining by some 650 and 370 basis points from their record highs at end-October 2008. CDS of the three countries considered to be least risky (the Czech Republic, Poland and Slovakia) had been trading in a rather close range up to end-October. Since then, however, Polish CDS premiums went up markedly and Czech CDS premiums followed suit at the beginning of 2009. The Czech Republic's differential to Slovakia narrowed again in recent weeks, but Poland's CDS premiums were 100 basis points higher than Slovakia's at the cutoff date (compared with 50 basis points at end-October 2008).

From end-October 2008 to end-February 2009, CESEE stock markets recorded further losses, though on average the downward trend decelerated somewhat. In March, however, a recovery set in. When taking the whole review period into consideration, only Bulgaria (-40%), Croatia (-30%) and Slovakia (-10%) recorded equity price losses. In contrast, the most pronounced equity price gains were seen in Russia (+40%) and the Czech Republic (+20%). Hence, developments within the CESEE region diverged considerably. A global comparison reveals that, over the review period, Eastern Europe performed in line with other emerging market regions, while outperforming mature stock markets. Similarly to the MSCI EM Index, the MSCI EMEE Index (covering the Czech Republic, Hungary, Poland and Russia) increased by about 30%, whereas the DJ Industrial Average and the EURO STOXX decreased by about 5%.

Chart 1a

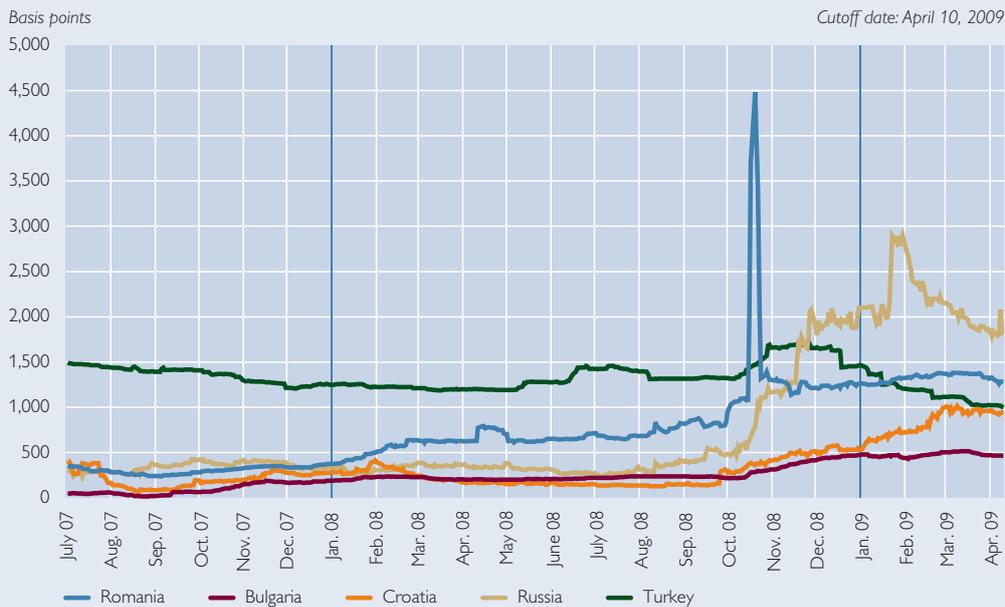
3-Month Money Market Spreads against the Euro Area



Source: Bloomberg.

Chart 1b

3-Month Money Market Rate Spreads against the Euro Area



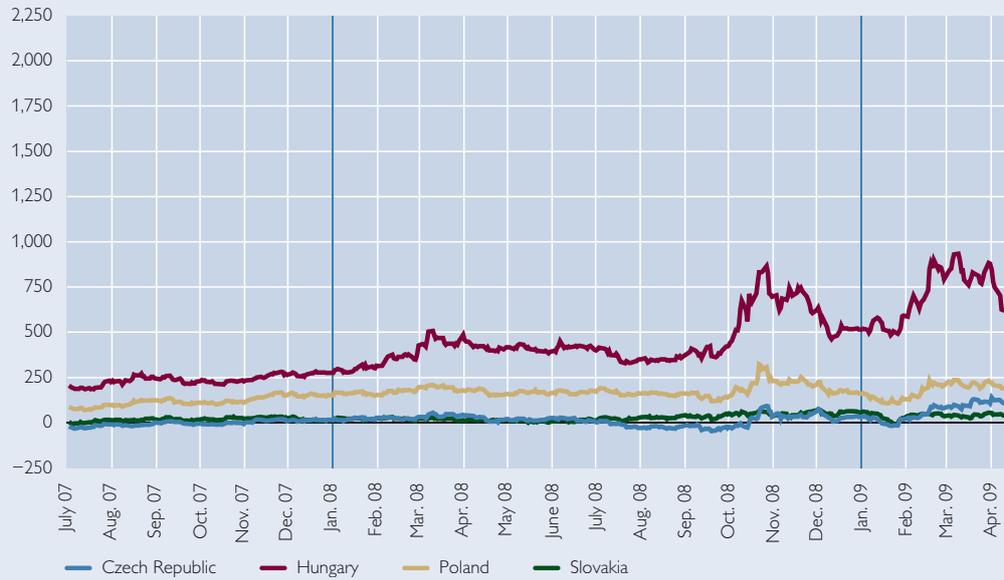
Source: Bloomberg.

Chart 2a

Local Currency Government Bond Yield Spreads against the Euro Area

Country subindices of JPM EM-GBI, basis points

Cutoff date: April 10, 2009



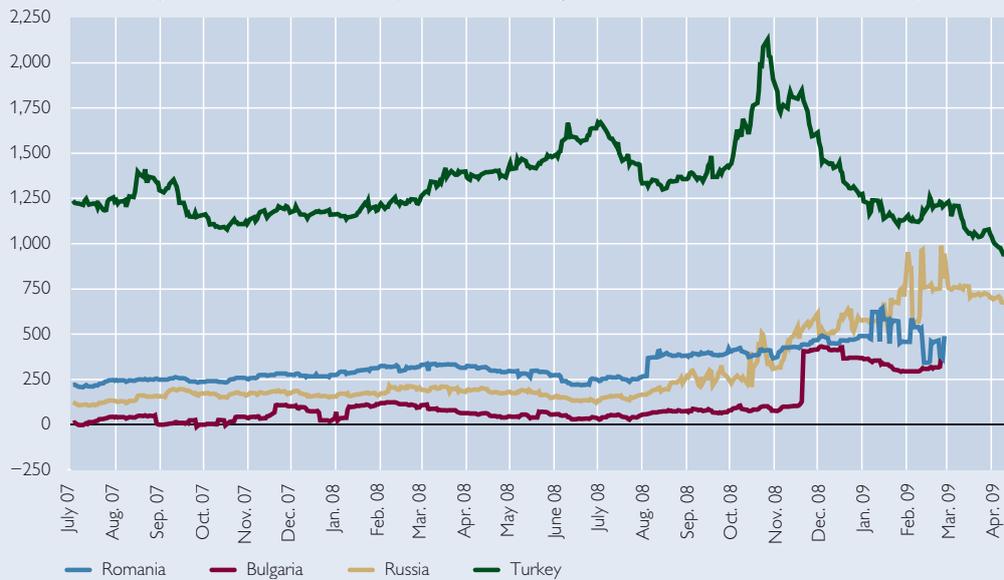
Source: Thomson Reuters.

Chart 2b

Local Currency Government Bond Yield Spreads against the Euro Area

Country subindices of JPM GBI-EM for Russia and Turkey, Eurostat data for Bulgaria and Romania, basis points¹

Cutoff date: April 10, 2009



Source: Thomson Reuters, Eurostat.

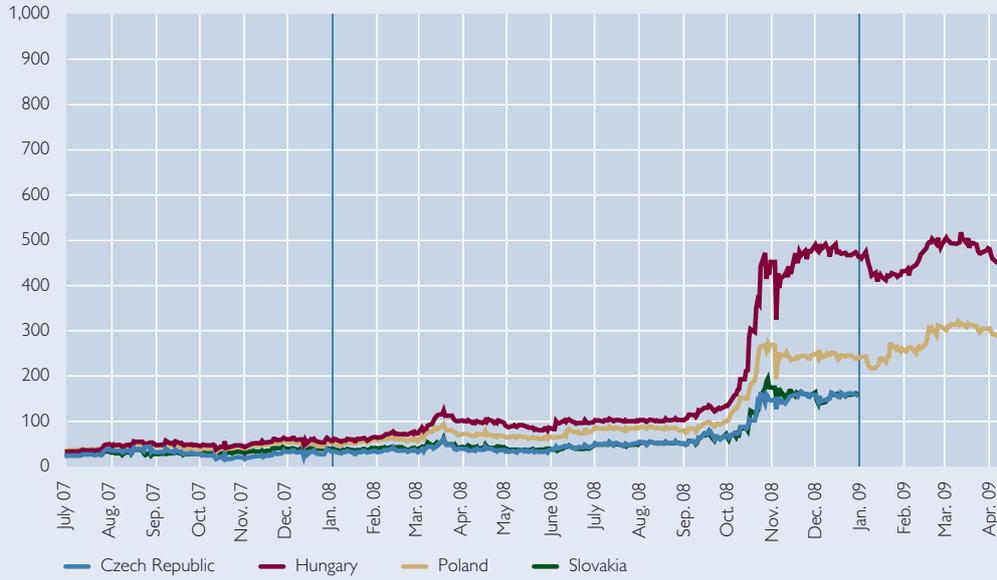
¹ The last observation for Bulgaria and Romania is February 27, 2009.

Chart 3a

Euro-Denominated Eurobond Yield Spreads

JPM Euro EMBI Global, basis points

Cutoff date: April 10, 2009



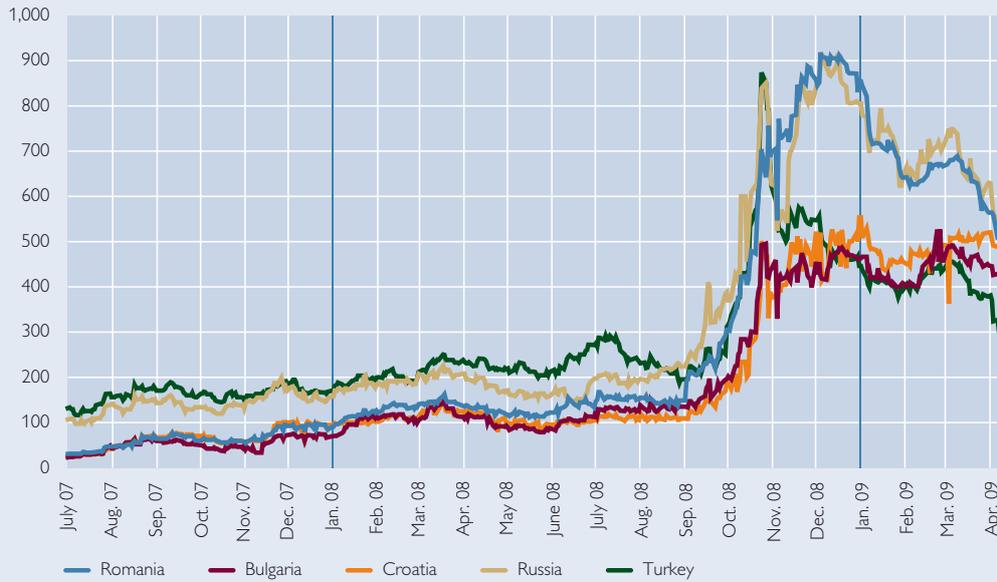
Source: Thomson Reuters.

Chart 3b

Euro-Denominated Eurobond Yield Spreads

JPM Euro EMBI Global, for Russia JPM EMBI Global, basis points

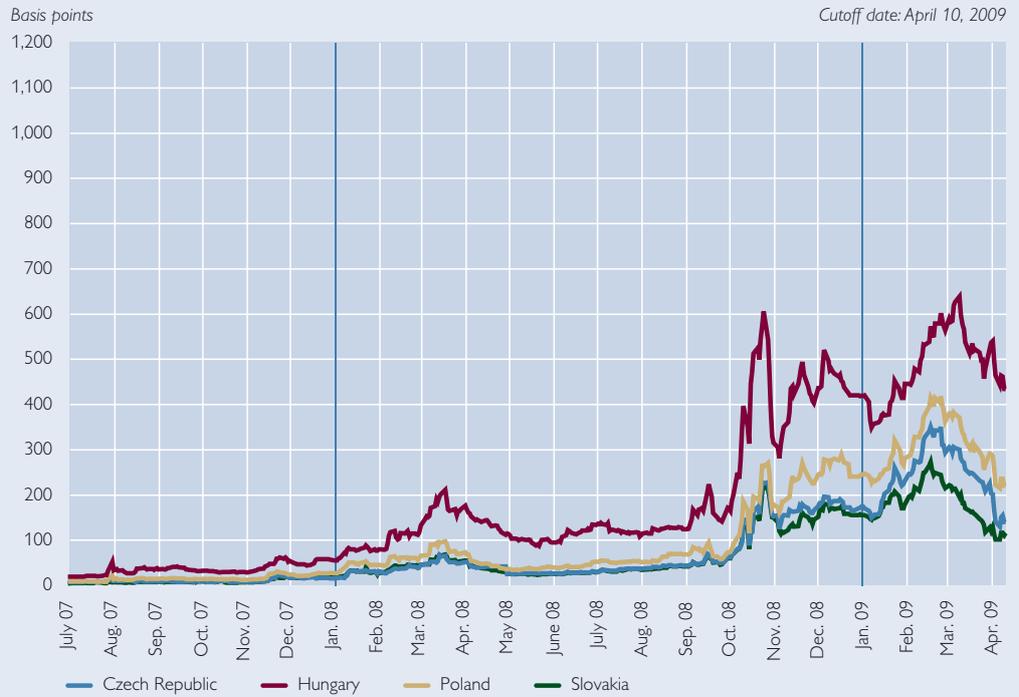
Cutoff date: April 10, 2009



Source: Thomson Reuters.

Chart 4a

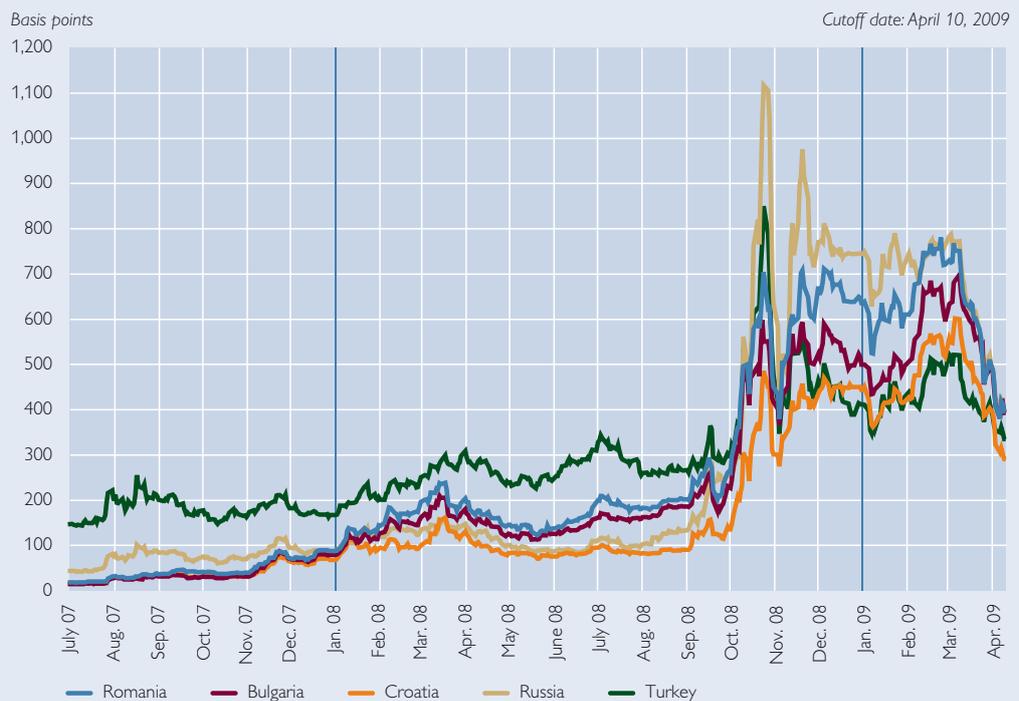
Sovereign 5-Year Credit Default Swap Premiums



Source: Thomson Reuters.

Chart 4b

Sovereign 5-Year Credit Default Swap Premiums



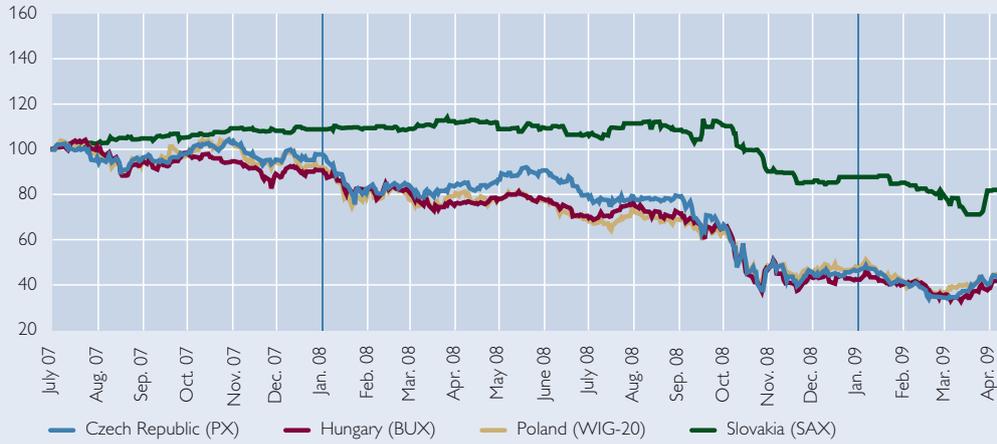
Source: Thomson Reuters.

Chart 5a

Stock Market Developments

June 29, 2007 = 100

Cutoff date: April 10, 2009



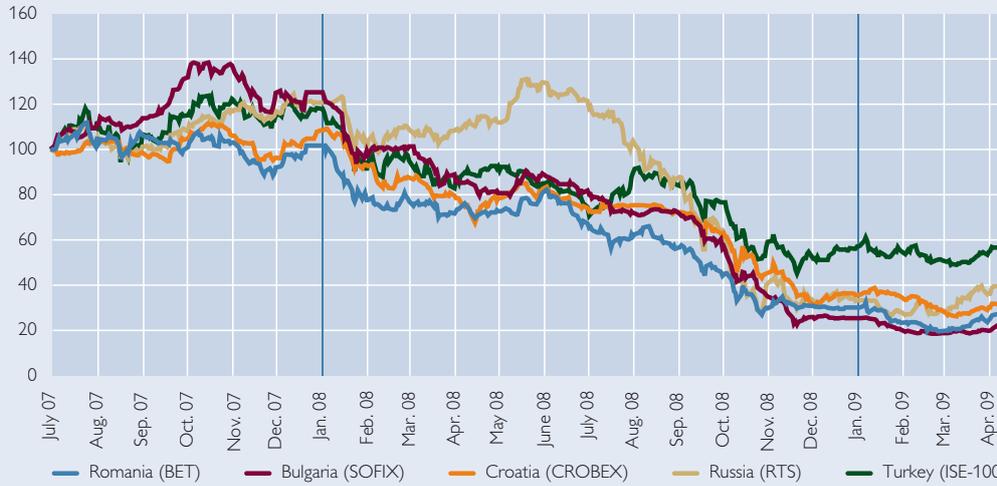
Source: Thomson Reuters.

Chart 5b

Stock Market Developments

June 29, 2007 = 100

Cutoff date: April 10, 2009



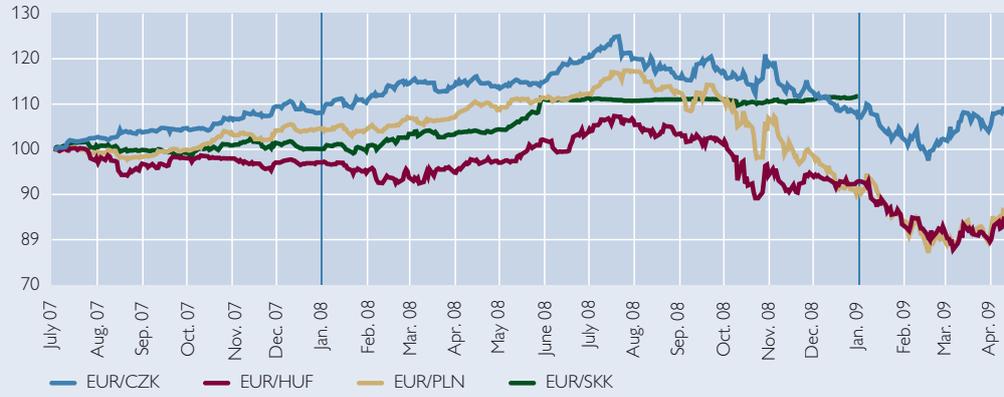
Source: Thomson Reuters.

Chart 6a

Exchange Rate Developments against the Euro¹

June 29, 2007 = 100

Cutoff date: April 10, 2009



Source: Thomson Reuters.

¹ An increase in value means a nominal appreciation.

Chart 6b

Exchange Rate Developments against the Euro¹

June 29, 2007 = 100

Cutoff date: April 10, 2009



Source: Thomson Reuters.

¹ An increase in value means a nominal appreciation.

Outlook for Selected Central and Eastern European Countries¹

Region Not Immune to Global Downturn: 2009 to Bring Stagnation in Poland and Recession in the Czech Republic, Hungary and Russia; Comparatively Moderate Recovery in 2010 Hinges Strongly on Improvement of External Demand

Since the fall of 2008, the global financial crisis has intensified markedly, risk aversion has risen substantially, especially vis-à-vis emerging economies, and the repercussions of the crisis on the real economy have magnified very strongly across the globe. World-wide, forecasting institutions have undertaken repeated and very substantial downward revisions of growth projections. While forecasters started to moderately reduce their growth projections for the U.S.A. and the euro area already at the beginning of 2008, projections for CESEE countries remained broadly unchanged or were even revised upward in the case of Russia until August/September 2008, but declined sharply thereafter. The positive growth differential of about 3 percentage points between CESEE and the euro area, observed for many years, no longer figures in current projections. In 2009 and 2010, the growth differential between these two regions could amount to around 1 percentage point.

In the fourth quarter of 2008, growth decelerated markedly. Also, the development of important short-term activity indicators points to a further weakening of general economic dynamics in early 2009.

Chart 1

CESEE EU Member States: Development of Growth Projections for 2009



Source: Consensus Economics, EBRD, European Commission (EC), IMF, wiiw.

¹ The OeNB and Suomen Pankki – Finlands Bank (BOF) compile semiannual forecasts of economic developments in the Czech Republic, Hungary, Poland and Russia, with the OeNB responsible for the projections for the three Central European countries and the BOF in charge of the forecast for Russia. The forecasts are based on expert judgment and estimates of long-run elasticities. For the first time, the projections for the three Central European countries are also informed by country-specific IS-LM models, which are, however, still being developed. (A detailed description of the model is forthcoming in a future issue of the Focus on European Economic Integration, and a preliminary version of this description is available upon request from julia.woerz@oenb.at). The forecast for Russia was prepared in cooperation with the BOF and is based on a structural VAR model. All forecasts are based on preliminary global growth projections and technical assumptions about euro area import growth, oil prices and USD/EUR exchange rates, which are prepared by the ECB for the Eurosystem in the context of broad macroeconomic projection exercises. Imports of the euro area are expected to shrink substantially in 2009 and to recover moderately thereafter. The price of oil will stay broadly stable in 2009 and is expected to rise slightly in 2010. The EUR/USD exchange rate is assumed to remain unchanged over the entire projection horizon at levels recorded at the end of March 2009.

Having first turned negative in October 2008, industrial output growth contracted at an accelerating rate, which in January 2009 reached on average -17.1% (year on year) in the EU Member States covered in the main part of the report. Output likewise declined at a more or less comparable pace in Russia and Turkey, while a less pronounced reduction was observed in Croatia. Currently, industrial production in CESEE contracts at rates comparable with those seen in the euro area, the deterioration has, however, been more pronounced in CESEE countries, as this region's industrial production growth had been higher than in the euro area before the onset of the crisis.

The weakening of the industrial sector is also reflected in declining capacity utilization rates and worsening industrial sentiment. Both indicators continued their downward trend and reached long-term lows in recent months.

The household sector, in turn, has been affected less than industry so far. Growth of retail sales turned negative in December 2008 and averaged -1.4% in the EU Member States (excluding the Baltic states) in February 2009. According to most recent data, retail sales in Croatia and Russia still expanded in December 2008 (for Turkey no comparable data are available). While retail sales in the euro area contracted somewhat more strongly in February 2009, the deceleration over the past months was again more pronounced in CESEE. Consumer sentiment continued its downward trend and by March 2009, had sunk to levels which were even below industrial sentiment. Unemployment rates increased slowly in all CESEE countries in early 2009, thus lagging developments in a number of euro area countries, where unemployment soared recently.

Export orders in the region fell far below long-term average levels (comparable data for Croatia, Russia and Turkey are not available) and continued to go down in early 2009, which shows that recently external demand had shrunk further in key export markets, including the euro area, which receives more than 50% of all CESEE exports. Export expectations likewise declined markedly in early 2009 and reached negative levels in all countries.

The new OeNB-BOF projections were completed in early April 2009² and cover the three largest EU members in Eastern Europe, namely the Czech Republic, Hungary and Poland, which together represent more than 60% of the CESEE EU Member States' GDP, and Russia. According to these projections, the **Polish economy** is expected to stagnate in 2009 and to start growing again in 2010. The Czech Republic and Hungary, both very open economies (more so than Poland), are affected particularly strongly by the downturn in external demand, with **Hungary** falling into a steeper and longer recession owing to more pronounced macro-financial weaknesses (substantial public sector debt, high share of foreign currency loans to the nonbank private sector). The **Czech Republic** is being hit strongly by the current bust in the automotive industry, but is expected to recover sooner due to its greater leeway for anti-cyclical measures. The **Russian economy** will likewise experience negative growth in 2009 on the back of decreased oil prices reflecting weaker external demand. For all economies alike, the main growth drivers of recent years are dysfunctional at the moment. Much stiffer financing conditions as a result of the financial crisis and receding foreign capital inflows are weighing on the growth outlook. Domestic demand, which has suffered considerably in recent months, is holding up relatively well in Poland and is likely to react to stimuli from economic support programs in the Czech Republic and Russia. There is currently no room for such measures in Hungary. Some revival can be expected to come from EU-funded investment projects and the catching-up process, which, granted, has been slowed down very much by the crisis but is due to continue thereafter. An upswing in Central Europe is expected to rely heavily on a recovery of external demand, which is assumed to rise again gradually in 2010. For Russia, oil price developments remain key to the growth outlook.

Against the backdrop of the global outlook, the highly export-oriented **Czech economy** is now expected to shrink by 2.3% in 2009 compared with 2008 and to slightly recover

² The cutoff date for all data and forecasts in this box was April 3, 2009, with the exception of the IMF World Economic Outlook figures in the table, which were released on April 22, 2009.

Table 1

Real GDP Growth in 3 CEE EU Member States and Russia

	Latest forecast				Previous forecast	
	2006	2007	2008	2009	2008	2009
<i>Annual change in %</i>						
Czech Republic						
Historical data	6.4	6.5	..	..
European Commission (November 2008)			4.4	3.6	European Commission (April 2008)	4.7 5.0
IMF (October 2008)			4.0	3.4	IMF (April 2008)	4.2 4.6
wiiw (October 2008)			4.3	4.3	wiiw (July 2008)	4.7 5.0
Consensus Forecasts (October 2008)			4.0–4.8	1.5–5.2	Consensus Forecasts (April 2008)	3.8–5.5 3.2–6.0
Hungary						
Historical data	3.9	1.3	..	..
European Commission (November 2008)			1.7	0.7	European Commission (April 2008)	1.9 3.2
IMF (October 2008)			1.9	2.3	IMF (April 2008)	1.8 2.5
wiiw (October 2008)			2.0	1.0	wiiw (July 2008)	2.5 3.4
Consensus Forecasts (October 2008)			1.7–2.5	1.0–2.6	Consensus Forecasts (April 2008)	1.5–2.7 2.5–3.6
Poland						
Historical data	6.2	6.5	..	..
European Commission (November 2008)			5.4	3.8	European Commission (April 2008)	5.3 5.0
IMF (October 2008)			5.2	3.8	IMF (April 2008)	4.9 4.5
wiiw (October 2008)			5.4	4.8	wiiw (July 2008)	5.5 5.3
Consensus Forecasts (October 2008)			5.0–5.4	3.3–4.6	Consensus Forecasts (April 2008)	4.7–5.8 4.1–5.5
Russia						
Historical data	7.3	8.1	..	..
European Commission (November 2008)			7.1	6.0	European Commission (April 2008)	7.7 7.3
IMF (October 2008)			7.0	5.5	IMF (April 2008)	6.8 6.3
wiiw (October 2008)			..	..	wiiw (July 2008)	7.3 6.8
Consensus Forecasts (October 2008)			6.2–7.5	3.4–6.1	Consensus Forecasts (April 2008)	6.5–7.8 6.0–7.6

Source: European Commission, Consensus Forecasts, IMF, wiiw.

in 2010 (+1.4%). Private consumption and investment will suffer given the unprecedented drop of confidence indicators over the last half year, an expected marked rise in unemployment and tight financing conditions. Nevertheless, the effect of the crisis on domestic demand may remain relatively contained compared with other CEE countries.

The negative impact on both private consumption and gross fixed capital formation will be alleviated by significant monetary and fiscal stimuli. Česká národní banka lowered its key interest rate by 200 basis points to 1.75% in the 12 months up to March 2009. Fiscal stimulus measures will likely amount to about 2% of GDP and focus, in particular, on investment support as well as on the reduction of the tax burden and labor costs. Private consumption will also benefit from an increase of real disposable income thanks to lower inflation. Although net exports will certainly suffer from plunging import demand in the euro area so that a substantial contraction seems to be inevitable, the impact will be alleviated by massive fiscal measures in the euro area (particularly in the automotive sector) and also by the recently depreciated Czech koruna.

Against the backdrop of the assumed strengthening of external demand, net exports are expected to contribute positively to growth in 2010. Growth will also be supported by some revival of domestic demand. While public consumption growth will likely decelerate, private consumption is likely to pick up. Given continued tight financing conditions, we expect investment to stay broadly flat in 2010.

The global economic crisis reached **Hungary** when the country was already experiencing difficult times, leading to a pronounced slump in economic activity in the fourth quarter of 2008 (GDP fell by 2.3% year on year, exports and imports by as much as 7.8% and 8.2%, private and public consumption decreased by 4.3% each). Given the global growth outlook and a new wave of domestic fiscal tightening measures – which are in line with the commitments made in connection with the international financial support provided by the IMF and the EU³ – GDP is projected to decline by 4.1% in 2009 and by 0.4% in 2010. The announced fiscal package, which involves spending cuts and an increase in indirect taxes with the aim to reduce nonwage labor costs, is further dampening the short-term growth outlook and fueling inflation in the short term, and hence reduces private spending capacity.

With respect to the individual demand components, private consumption will likely remain weak due to moderate wage growth (both in the private and the public sector), tightened financing conditions, reductions in transfers and savings measures in the pension system. Fiscal restraint will also hamper public investments. Private investments are discouraged mainly by the bleak economic outlook, deteriorated financing conditions and a declining profitability of the corporate sector, which presumably results in a contraction in investment over the projection horizon. With receding FDI, EU-funded projects will likely constitute the main pillar of investment. Exports will contract sharply in 2009 in response to lacking external demand. In this environment, the recent depreciation of the Hungarian forint cannot give the much-needed export stimulus, but puts additional pressure on the balance sheets of unhedged borrowers who have taken out foreign currency loans. Hence, there is no room for domestic economic stimuli, and the timing of a recovery will crucially depend on the recovery of export demand.

For 2010, based on the assumption of strengthening external demand, net exports will again contribute positively to growth but not outweigh a projected further decline in domestic demand. While private consumption will more or less stagnate, public consumption and investments will still decline. Hence, no growth impetus can be expected from domestic factors for 2010, and the revival of external demand will not be sufficient to lead to a recovery.

Poland's economy is expected to stagnate in 2009 and to start growing again in 2010, albeit at a moderate pace only. In 2009, private consumption will remain the main pillar of growth, with its growth rate still positive, but considerably smaller than in 2008. While consumer sentiment has already deteriorated markedly, the impact of the crisis on employment and retail sales will continue to lag somewhat behind the development in investment, exports and industrial output. At the same time, the personal income tax reduction that took effect at the beginning of 2009 may not boost consumption to a noticeable extent, as it mainly benefits higher-income households with a relatively high saving propensity. Moreover, credit extension to households will moderate further, and households burdened with foreign currency-denominated debt will probably restrain their consumption following the recent sharp currency depreciation.⁴

After two years of capacity expansion that was far stronger (roughly at double or triple growth rates) than for its regional peers, the Polish economy will see a marked contraction of fixed investment given the negative sales outlook, considerably higher unit labor costs, tighter lending conditions of banks and reduced access to cross-border loans as well as funding and home market problems of foreign parent companies. The budget envisages enhanced public investment (as a fiscal stimulus), but such spending plans were always underexecuted in previous years.

³ For detailed information on the package see: <http://www.imf.org/external/country/HUN/index.htm>.

⁴ The recent Polish request for an IMF credit line came after the cutoff date of our forecast.

The contraction of foreign demand is resulting in a veritable slump of exports. In addition, there will probably be some negative fallout from losses on foreign exchange options in the corporate sector. Given the deterioration in all three major final demand components, imports will fall even more than exports, thus putting the contribution of net exports to GDP growth in positive territory. With employment trailing output contraction, manufacturing productivity dropped sharply, so that the depreciation of the zloty in recent months mainly served to compensate for considerably increased unit labor costs rather than boosting the foreign trade balance. Assuming an unchanged exchange rate, the recently achieved currency level will strengthen net exports, once external demand picks up.

For 2010, based on the assumptions for foreign demand, a stabilization of exports, some moderate recovery in investment growth and constant subdued private consumption growth are expected. The investment-driven recovery will imply import growth exceeding export growth.

The forecast for **Russia** has been substantially scaled down in the wake of a massive deterioration in the external environment. The crash in oil prices is markedly squeezing domestic incomes, and capital can no longer be obtained on international markets. Growth in consumption is expected to fade and investment to decline markedly. Weak international demand is having a modest contractionary effect on export volumes. Import volumes will decline much more dramatically, in line with the depreciation of the ruble and soft demand. Total output growth is projected to reverse sharply into a modest decline this year (-2%) and then to gradually improve again in 2010 (+1%) based on a gradual recovery in the world economy and a moderate rise in oil prices.

Private consumption growth, largely driven by the trickle-down effects of oil and staple revenues, is slowing substantially and projected to decline slightly this year, owing to weaker wage developments and rising layoffs and unemployment. Given the authorities' sizeable anti-crisis measures already put in place and anticyclical fiscal policy, public consumption is projected to cushion the decline somewhat. Moreover, as Russian households are not highly indebted, there should be room for recovery of private consumption in 2010. With credit more expensive and harder to obtain, demand easing and company profits on the descent, volatile investment has been scaled back sharply in many branches. Public sector investment is also set to decline in the context of budget cuts in this area. Investment is thus estimated to decrease substantially in 2009, after which it should gradually resume positive growth.

The Russian export performance will continue to be determined largely by demand in the world markets and by domestic oil and raw material extraction and transport capacities (bottlenecks). After rapid growth in 2008, imports are expected to decline sharply in 2009 due to fading demand (squeezed incomes) and a weaker ruble (controlled devaluation in the period from November 2008 to January 2009 contributed to a 12% depreciation of the real effective exchange rate in the six months to end-February 2009). Furthermore, the weaker ruble may stimulate import substitution in some areas. As demand recovers, imports too should return to moderate growth in 2010.

As for risks to these projections, Russia's economic outlook depends heavily on what happens in the world economy through both oil prices and financial market developments. If the world economic crisis lasts longer and deepens, the price of oil falls further and financial markets remain in the doldrums, the situation in Russia will worsen. A renewed sustained deterioration of Russia's terms of trade would increase the downward pressure on the ruble and further destabilize the banking sector and the economy. Shrinking purchasing power due to a weaker ruble, high inflation and declining incomes could also set off popular unrest. In a worst plausible case, Russia's economic performance would be way below the one forecast here. Alternatively, a swift recovery of the world economy and a bouncing back of the oil price could set the stage for an above-forecast economic performance.

2 Slovakia: Euro Introduction Mitigates Spillovers from Global Financial Crisis

Fading external demand takes toll on growth

Economic growth slowed markedly from 6.6% in the third quarter to 2.5% in the fourth quarter of 2008, which translates into an annual average growth rate of 6.4%. The deceleration was broadly based and encompassed all GDP components. Exports suffered in particular as they contracted on the back of a pronounced decrease in foreign demand. With imports shrinking equally strongly, the growth contribution of net exports remained broadly constant at about -1 percentage point. Worsening export expectations and declining capacity utilization impacted adversely on investments. Private consumption growth, however, held up relatively well, which may be explained by a comparatively favorable development of unemployment, which increased only marginally in the final quarter of 2008, stable wage growth and still rather robust credit developments in the household sector. Recent forecasts project GDP growth in 2009 in a range of 0.8% to 2.7%. Thus, Slovakia is seen as one of the few CESEE countries avoiding stagnation/recession.

Annual growth of domestic credit to the nongovernment nonbank sector decelerated to 15.4% in December 2008 (from 25.3% in April) mainly due to a drastic slowdown in corporate credit growth. This is related to the slump in the export-oriented industrial sector, which was severely hit by the global slowdown. Industrial production decreased by 27% in January 2009, led by transport equipment (-48%) and electrical equipment (-44%). The latter two sectors represent the backbone of the impressive FDI-financed growth performance of the past years.

Inflation declines despite euro changeover

HICP inflation decelerated from 4.5% in September 2008 to 2.4% in February 2009, mainly on the back of lower inflationary pressure from food and energy. The introduction of the euro seems to have had little impact on general price developments so far, with only few cases of reported irregularities concerning price conversion. Národná banka Slovenska estimates the effect of euro adoption on overall HICP inflation to amount to 0.15 percentage points.

Euro somewhat shields economy from global headwinds

The short-term impact of the global financial crisis on the Slovak economy has arguably been mitigated by the euro adoption, in particular as regards exchange rate developments. While other currencies of the region weakened against the euro at double-digit rates, the Slovak koruna remained stable vis-à-vis the euro in the second half of 2008. However, over the medium term, the strong conversion rate combined with weakening currencies of key competitors (the Czech Republic, Hungary and Poland) will presumably put the competitive position of the Slovak economy under pressure. Throughout 2008, industrial ULC in Slovakia increased noticeably and at an accelerating pace. This was mainly due to a marked reduction in labor productivity growth, as the plunge in industrial output in the last months had not yet led to a notable employment response. Since this phenomenon was observed everywhere in the region, it did not have a major impact on the country's competitiveness. Moreover, in the fourth quarter of 2008, wage dynamics in industry moderated substantially, which may indicate that wages actually adjust to changing demand conditions.

As of this writing, the government has announced policy measures in the order of 0.5% of GDP with a view to dampening the real economic consequences of the crisis. A newly established economic crisis committee is in charge of coordinating the measures, which mainly focus on the labor market (e.g. temporary payroll tax relief for firms that are considered to be facing temporary liquidity problems).

Table 6

Main Economic Indicators: Slovakia

	2006	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	8.5	10.4	6.4	10.5	14.3	9.3	7.9	6.6	2.5
Private consumption	5.8	7.0	6.1	8.2	5.8	8.3	5.6	6.0	4.6
Public consumption	10.2	-1.3	4.3	-0.2	-1.3	0.7	9.6	5.3	2.3
Gross fixed capital formation	9.3	8.7	6.8	11.1	7.0	7.5	11.8	7.3	1.4
Exports of goods and services	21.0	13.8	3.2	8.3	11.6	11.2	8.1	2.7	-7.8
Imports of goods and services	17.7	8.9	3.3	2.3	10.2	10.6	7.7	3.6	-6.7
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	6.7	6.6	6.3	5.5	13.7	9.2	6.8	6.9	2.9
Net exports of goods and services	2.2	4.6	0.0	5.6	1.2	1.0	0.7	-0.7	-1.0
Exports of goods and services	18.0	13.2	3.1	7.8	11.8	11.7	8.1	2.5	-7.7
Imports of goods and services	15.8	8.6	3.2	2.2	10.5	10.6	7.3	3.2	-6.7
<i>Year-on-year change of the period average in %</i>									
Labor productivity of industry (real)	11.3	10.0	0.6	10.1	9.2	4.4	4.5	0.8	-7.5
Gross average wage of industry (nominal)	6.7	6.4	6.8	6.1	5.5	8.4	8.7	7.8	2.8
Unit labor cost of industry (nominal)	-4.1	-3.3	6.2	-3.6	-3.4	3.9	4.0	7.0	11.2
Producer price index (PPI) of industry	8.4	2.1	6.1	1.1	2.2	4.9	6.2	6.6	6.7
Consumer price index (here: HICP)	4.3	1.9	3.9	1.4	2.4	3.4	4.0	4.5	3.9
EUR per 1 SKK, + = SKK appreciation	3.7	10.2	8.0	12.7	7.5	3.9	7.5	10.8	10.1
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15-64 years)	13.4	11.2	9.5	11.4	10.7	10.2	9.8	9.1	9.1
Employment rate (15-64 years)	59.4	60.7	62.2	60.7	61.6	61.3	61.7	63.1	62.9
Key interest rate per annum (%)	4.0	4.4	4.1	4.3	4.3	4.3	4.3	4.3	3.5
SKK per 1 EUR	37.2	33.8	31.3	33.6	33.4	33.1	31.4	30.3	30.4
<i>Nominal year-on-year change of the period average stock in %</i>									
Broad money (including foreign currency deposits)	12.8	15.1	7.6	14.9	12.6	10.8	7.6	6.4	5.8
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	-1.9	-2.4	-5.8	-3.1	-1.1	1.2	-5.7	-9.9	-8.3
Domestic credit of the banking system	14.3	17.2	15.6	17.1	15.3	13.9	16.1	17.4	15.0
of which: claims on the private sector	15.5	14.9	16.2	15.4	15.4	17.0	16.9	16.5	14.6
claims on households	7.7	7.2	7.8	7.1	7.3	7.4	7.8	8.1	8.0
claims on enterprises	7.7	7.8	8.4	8.3	8.1	9.5	9.1	8.4	6.6
claims on the public sector (net)	-1.2	2.2	-0.6	1.8	-0.2	-3.1	-0.8	1.0	0.4
Other domestic assets (net) of the banking system	0.4	0.3	-2.3	0.8	-1.5	-4.4	-2.8	-1.1	-1.0
<i>% of GDP, ESA 95</i>									
General government revenues ¹	33.5	32.5	32.7	..	..	..	..	..	..
General government expenditures ¹	36.9	34.4	34.9	..	..	..	..	..	..
General government balance ¹	-3.5	-1.9	-2.2	..	..	..	..	..	..
Primary balance ¹	-2.0	-0.5	-0.9	..	..	..	..	..	..
Gross public debt ¹	30.4	29.4	27.6	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	29.3	26.9	13.4	20.3	22.0	18.0	21.2	19.1	-2.2
Merchandise imports	27.7	21.4	13.4	15.5	18.3	16.7	21.5	20.1	-1.9
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-4.6	-1.2	-1.1	0.0	-3.0	1.3	-2.0	-0.6	-2.8
Services balance	1.4	0.7	-0.7	0.9	0.4	-0.6	-0.6	-0.7	-1.0
Income balance (factor services balance)	-3.7	-4.3	-3.5	-5.6	-5.3	-0.8	-7.4	-3.2	-2.3
Current transfers	-0.1	-0.6	-1.3	-0.9	0.1	-1.4	-1.3	-1.1	-1.5
Current account balance	-7.0	-5.4	-6.6	-5.6	-7.8	-1.4	-11.3	-5.6	-7.5
Capital account balance	-0.1	0.6	1.2	0.1	1.1	0.9	2.4	0.5	1.1
Foreign direct investment (net)	6.8	3.6	3.4	4.6	4.1	-1.2	3.4	3.8	7.0
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	54.8	54.8	58.0	53.4	54.8	54.8	59.7	59.1	58.0
Gross official reserves (excluding gold)	21.6	22.4	18.9	23.7	22.4	21.1	20.2	19.4	18.9
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	3.0	3.1	2.7	3.3	3.1	2.9	2.8	2.7	2.7
<i>EUR million, period total</i>									
Gross domestic product in current prices	44,629	54,900	65,026	14,441	14,931	14,213	16,042	17,550	17,221

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

¹ Including the net costs of the pension reform.

3 Slovenia: Successive Crisis-Response Packages to Counter Economic Contraction

Drop in investment leads to negative GDP growth in the fourth quarter of 2008

GDP contracted by 0.8% in the closing quarter of 2008, after an expansion of 3.9% in the previous quarter. Among the domestic demand components, investment growth turned negative in the last three months of 2008, with the biggest downward impulse coming from construction, metal products and machinery. This reflected both the deterioration in economic prospects (especially the export outlook) and a tight credit market. By contrast, domestic consumption continued to expand, albeit at a somewhat slower pace than during the first three quarters of 2008. In particular, public consumption grew dynamically. Private consumption growth had turned rather weak already in the third quarter and remained so in the fourth, despite solid real wage growth and rising employment in the final three months of 2008, potentially reflecting mainly souring expectations. Similarly to other countries in the region, exports decreased substantially; however, as imports fell even more, net exports contributed positively to GDP growth.

Inflation differential to the euro area decreased

Mainly due to slowing inflation in energy and processed food prices, HICP inflation decelerated to 2.1% in February 2009, from around 7% in mid-2008. Given that disinflation in these two components was stronger than in the euro area, the difference between inflation in Slovenia and the euro area average decreased from 2.8 to 0.9 percentage points.

Several fiscal measures taken to dampen the impact of the crisis

In order to mitigate the impact of the global crisis on Slovenia's real economy, the authorities put together a first package in mid-December 2008 and a second in February 2009, both of which are now being implemented. The packages included a subsidy scheme for companies that shorten working hours while keeping salaries unchanged and thus abstain from layoffs, tax breaks for investment, guarantee schemes for bank loans to enterprises and measures to improve the capital adequacy of banks. Against the background of faltering growth of domestic credit to the private sector (which ran to 15% year on year in January 2009, down from around 34% in mid-2008 and 43% in December 2007), the government issued unlimited retail deposit insurance and became entitled to undertake guarantees for bank liabilities to a maximum of EUR 12 billion to support banks' refinancing. The country's biggest bank has already applied for a guarantee and two more banks are expected to follow suit. Also, the proceeds of two government bond issues (combined volume: EUR 2.5 billion) have been used to improve banking sector liquidity. Currently, the government is working on a third set of crisis-response measures. These will reportedly concentrate on enhancing competitiveness, helping workers who lose their job due to shrinking orders, implementing measures in the construction sector, subsidizing interest payments of companies, stepping up support for research and development and providing additional aid to SMEs. To incorporate these measures into the fiscal accounts, parliament passed a supplementary budget, which envisages a substantial increase in expenditures compared with 2008 (+17%) and a budget deficit of 3.4% of GDP (up from 0.9% in 2008). The revised budget is based on assumed GDP growth of 0.6%, but the government has already started work on another supplementary budget based on the government's recently updated growth forecast of -4%. Besides, the government is considering unifying financial supervision, implementing further changes in the tax system and streamlining the public sector (including measures to contain the public sector wage bill).

Table 7

Main Economic Indicators: Slovenia

	2006	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	5.9	6.8	3.5	7.5	5.4	5.7	5.5	3.9	-0.8
Private consumption	2.9	5.1	2.2	7.1	5.4	3.7	3.5	0.7	1.1
Public consumption	4.1	2.5	3.7	2.3	3.5	2.0	3.3	4.6	5.0
Gross fixed capital formation	10.4	11.9	6.2	14.5	4.2	16.9	10.3	4.5	-5.3
Exports of goods and services	12.5	13.8	3.3	15.8	10.1	7.6	8.0	4.2	-6.2
Imports of goods and services	12.2	15.7	3.5	19.4	11.1	9.7	9.2	3.0	-6.6
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	5.8	8.2	3.8	9.8	6.6	7.4	6.5	3.2	-1.5
Net exports of goods and services	0.1	-1.5	-0.2	-2.4	-1.2	-1.6	-1.0	0.9	0.7
Exports of goods and services	8.2	9.6	2.5	10.9	7.2	5.7	5.9	3.1	-4.6
Imports of goods and services	8.1	11.1	2.7	13.3	8.4	7.3	6.9	2.3	-5.2
<i>Year-on-year change of the period average in %</i>									
Labor productivity of industry (real)	7.9	5.5	-1.0	5.1	3.0	1.6	3.6	-0.7	-8.8
Gross average wage of industry (nominal)	5.5	6.7	7.8	6.6	8.6	8.3	9.7	9.4	4.1
Unit labor cost of industry (nominal)	-2.3	1.1	8.9	1.4	5.4	6.6	5.9	10.2	14.2
Producer price index (PPI) of industry	2.4	7.1	8.1	8.2	10.7	10.2	10.8	8.0	3.9
Consumer price index (here: HICP)	2.5	3.8	5.5	3.7	5.5	6.5	6.4	6.2	3.1
EUR per 1 SIT, + = SIT appreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15-64 years)	6.0	4.9	4.4	4.6	4.6	4.6	4.5	4.3	4.2
Employment rate (15-64 years)	66.5	67.8	68.6	69.0	67.7	67.1	68.3	70.1	68.8
Key interest rate per annum (%)	3.5	3.8	3.9	4.0	4.0	4.0	4.0	4.2	3.5
SIT per 1 EUR	239.6	239.6	239.6	239.6	239.6	239.6	239.6	239.6	239.6
<i>Nominal year-on-year change of the period average stock in %</i>									
Broad money (including foreign currency deposits)	8.4	22.5	9.8	25.2	25.0	13.2	10.9	7.8	7.7
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	-15.6	-21.4	-15.6	-22.8	-25.3	-17.7	-16.8	-15.0	-13.1
Domestic credit of the banking system	24.7	36.6	30.5	38.6	42.9	34.8	32.7	29.7	25.4
of which: <i>claims on the private sector</i>	26.8	36.0	32.2	38.8	42.3	36.6	35.3	31.2	26.3
<i>claims on households</i>	7.0	8.0	7.2	8.2	9.1	8.4	7.9	6.8	5.7
<i>claims on enterprises</i>	19.8	28.0	25.0	30.6	33.2	28.2	27.4	24.4	20.6
<i>claims on the public sector (net)</i>	-2.1	0.6	-1.7	-0.2	0.7	-1.8	-2.6	-1.6	-0.9
Other domestic assets (net) of the banking system	-0.6	7.4	-5.5	9.5	7.3	-5.8	-4.9	-6.9	-4.6
<i>% of GDP, ESA 95</i>									
General government revenues	43.3	42.9	42.7	..	..	..	..	..	..
General government expenditures	44.6	42.4	43.6	..	..	..	..	..	..
General government balance	-1.3	0.5	-0.9	..	..	..	..	..	..
Primary balance	0.1	1.8	0.2	..	..	..	..	..	..
Gross public debt	26.7	23.4	22.8	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	16.6	16.3	2.4	18.2	11.4	7.4	7.7	4.0	-9.1
Merchandise imports	16.3	18.1	6.9	20.4	12.0	12.1	13.1	10.2	-6.6
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-3.7	-4.8	-7.2	-4.5	-7.4	-5.7	-7.0	-7.7	-8.2
Services balance	3.2	3.5	4.6	4.0	2.2	4.1	4.9	5.6	3.7
Income balance (factor services balance)	-1.4	-2.1	-2.7	-4.0	-1.3	-2.5	-2.4	-3.0	-2.8
Current transfers	-0.6	-0.8	-0.6	-0.9	-1.0	-1.7	-0.4	0.4	-0.7
Current account balance	-2.5	-4.2	-5.9	-5.4	-7.4	-5.9	-5.0	-4.7	-8.0
Capital account balance	-0.4	-0.2	-0.2	-0.4	-0.1	0.0	-0.2	-0.4	-0.3
Foreign direct investment (net)	-0.6	-0.8	0.7	0.0	0.5	1.7	-0.3	-0.9	2.4
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	77.6	100.8	105.0	96.1	100.8	104.7	107.9	108.1	105.0
Gross official reserves (excluding gold) ¹	17.2	1.9	1.7	2.2	1.9	2.0	1.7	1.7	1.7
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	3.1	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.3
<i>EUR million, period total</i>									
Gross domestic product in current prices	31,013	34,471	37,126	8,958	8,920	8,726	9,636	9,647	9,117

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

¹ Given Slovenia's adoption of the euro, the methodology for calculating international reserves was changed from the beginning of 2007. In particular, reserves no longer include foreign assets in euro as well as claims on euro area residents.

4 Bulgaria: Crisis Hits, too, but So Far Less Hard than in Other CESEE Countries

While still running to 3.5%, economic growth halves in the fourth quarter of 2008

The global crisis reached Bulgaria via the foreign trade channel and a reduction of net foreign capital inflows. So far, the knock-on effects, while being substantial, have been somewhat less pronounced than in many other CESEE countries. However, macroeconomic imbalances that have built up over the last years – in spite of broadly prudent macroeconomic policies – still form a risk of weighing on the real economy in the course of 2009/2010.

Bulgaria ranked among the fastest growing countries in the region up to the third quarter of 2008. The decline in growth to 3.5% in the fourth quarter can be attributed to lower private consumption growth and to a strong decrease of exports. Lower domestic and foreign demand has also fed through to a marked decline of industrial output, which shrank by more than 8% in December 2008. Credit expansion (private sector credit growth has moderated substantially and largely ground to a halt – in month-on-month terms – at the end of 2008) decelerated considerably, partly resulting from tighter external financing conditions and more cautious local lending practices. As a consequence, the Bulgarian National Bank (BNB) further decreased minimum reserve requirements in December 2008 and January 2009, bringing about some easing in money market conditions.

Macroeconomic imbalances still in place

As exports of goods and services declined more strongly than imports in the fourth quarter of 2008, the current account balance did not improve and reached a deficit of about 24% of GDP for 2008 as a whole. At the same time, net FDI inflows moderated in the second half of 2008, but still covered about 70% of the full-year combined current and capital account deficit. Furthermore, external debt continued to rise. While net external debt reached 44% of GDP at end-September 2008, gross external debt stood at 107% of GDP at the end of 2008.

HICP inflation slowed substantially in the second half of 2008, falling from 14.4% year on year in July 2008 to 5.4% in February 2009. This was mainly brought about by lower energy and food price increases. While these two components accounted for more than 50% of total inflation in July 2008, their share had decreased to just 18% by February 2009.

Wage dynamics, while starting to moderate in the fourth quarter of 2008, are still at a high level. The moderation has not yet offset the marked reduction in labor productivity growth induced by the recent downturn. Thus, the already high ULC growth accelerated further toward the end of 2008.

Buffers: fiscal positions remain solid while foreign exchange reserves have diminished

After a fiscal surplus of 1.5% of GDP in 2008, Bulgaria aims to keep the surplus target of 3% also in the medium run. However, the European Commission in its assessment of Bulgaria's convergence program expects higher revenue shortfalls and hence a fiscal surplus of only about 2% of GDP for 2009 and 2010 due to lower GDP growth and a less tax-intensive composition of growth. The reserves accumulated from the budgetary surpluses of the last years (the Fiscal Reserve Account is equipped with funds of about 12% of GDP as at February 2009) work as an additional buffer to ensure a smooth refinancing of maturing public debt.

The central bank's international reserves declined by around 20% from September 2008 to the end of March 2009, which is to a considerable extent due to the easing of the minimum reserve requirement (deposits of other MFIs with the BNB declined by about 35%). Nevertheless, BNB's foreign reserves still cover gross short-term external debt by about 95% and reserve money by 193%.

Table 8

Main Economic Indicators: Bulgaria

	2006	2007	2008	Q3 2007	Q4 2007	Q3 2007	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	6.3	6.2	6.0	4.9	6.9	7.1	7.1	6.8	3.5
Private consumption	9.5	5.3	4.8	5.2	2.8	6.5	5.4	6.4	1.5
Public consumption	-1.3	3.1	0.1	-0.4	11.2	-4.4	2.0	0.4	1.2
Gross fixed capital formation	17.6	21.7	20.3	19.7	14.0	15.5	28.6	22.3	15.8
Exports of goods and services	8.7	5.2	2.9	5.4	6.0	9.2	5.1	3.8	-6.0
Imports of goods and services	14.0	9.9	4.9	9.3	5.7	5.8	13.7	4.2	-3.2
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	12.3	11.2	7.2	8.8	8.5	6.0	15.4	4.0	4.3
Net exports of goods and services	-6.4	-5.6	-2.8	-4.1	-1.9	0.1	-9.8	-1.1	-0.5
Exports of goods and services	5.6	3.4	1.9	3.7	3.5	6.1	3.5	2.6	-3.5
Imports of goods and services	12.0	9.1	4.6	7.9	5.4	6.0	13.3	3.7	-3.0
<i>Year-on-year change of the period average in %</i>									
Labor productivity of industry (real)	10.5	8.7	0.7	9.7	8.0	7.4	4.5	0.0	-9.1
Gross average wage of industry (nominal)	10.8	20.1	22.2	20.0	22.8	25.0	24.0	22.5	17.8
Unit labor cost of industry (nominal)	0.3	10.4	21.3	9.4	13.7	16.4	18.7	22.5	29.6
Producer price index (PPI) of industry	6.8	8.4	10.8	8.1	11.7	14.6	13.2	12.2	3.8
Consumer price index (here: HICP)	7.4	7.6	12.0	9.0	11.2	12.4	14.0	12.5	9.0
EUR per 1 BGN, + = BGN appreciation	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15-64 years)	9.0	6.9	5.6	6.8	6.2	6.2	5.9	5.3	5.1
Employment rate (15-64 years)	58.6	61.7	64.0	62.7	62.9	62.6	63.9	65.0	64.3
Key interest rate per annum (%) ¹	..	..	..	..	..	..	..	..	..
BGN per 1 EUR	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
<i>Nominal year-on-year change of the period average stock in %</i>									
Broad money (including foreign currency deposits)	21.3	29.0	22.8	29.4	29.7	30.2	27.4	22.2	13.3
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	14.7	10.4	-2.9	8.3	4.1	1.8	0.4	-3.4	-9.1
Domestic credit of the banking system	13.0	25.3	33.5	28.0	34.2	37.8	35.3	32.9	28.9
of which: claims on the private sector	16.4	34.2	41.7	37.6	43.3	45.5	44.6	42.2	35.6
claims on households	9.4	12.0	14.3	12.7	14.5	15.4	15.2	14.4	12.5
claims on enterprises	7.0	22.2	27.4	24.9	28.8	30.2	29.4	27.8	23.1
claims on the public sector (net)	-3.4	-8.9	-8.2	-9.6	-9.1	-7.8	-9.2	-9.3	-6.7
Other domestic assets (net) of the banking system	-6.4	-6.6	-7.8	-6.9	-8.6	-9.3	-8.4	-7.3	-6.6
<i>% of GDP, ESA 95</i>									
General government revenues	39.5	41.5	39.0	..	..	..	..	..	..
General government expenditures	36.5	41.5	37.4	..	..	..	..	..	..
General government balance	3.0	0.1	1.5	..	..	..	..	..	..
Primary balance	4.4	1.1	2.4	..	..	..	..	..	..
Gross public debt	22.7	18.2	14.1	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	26.9	12.5	13.0	12.2	19.2	25.8	22.3	17.9	-10.2
Merchandise imports	26.7	18.4	15.8	17.2	19.6	22.0	33.0	18.4	-5.3
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-22.0	-25.3	-25.9	-22.3	-27.8	-26.1	-30.8	-22.5	-24.9
Services balance	3.7	3.9	3.4	11.4	-1.4	-2.1	4.5	10.5	-0.8
Income balance (factor services balance)	-2.1	-1.6	-3.2	-3.2	-0.9	-1.6	-5.7	-2.7	-2.7
Current transfers	2.7	1.2	1.5	0.9	1.3	2.0	4.3	0.6	-0.4
Current account balance	-17.8	-21.8	-24.3	-13.2	-28.8	-27.7	-27.8	-14.1	-28.8
Capital account balance	0.7	1.2	0.8	0.9	2.6	2.7	0.2	0.4	0.4
Foreign direct investment (net)	23.3	21.8	14.6	23.9	20.8	9.5	23.9	16.7	8.1
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	81.7	99.8	107.4	93.9	99.8	99.4	106.0	108.8	107.4
Gross official reserves (excluding gold)	32.9	38.8	35.0	39.8	38.8	37.8	39.7	42.4	35.0
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	4.8	5.5	5.1	5.7	5.5	5.3	5.5	5.9	5.1
<i>EUR million, period total</i>									
Gross domestic product in current prices	25,238	28,899	34,118	8,050	8,358	6,894	8,152	9,515	9,557

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

¹ Not available in a currency board regime.

5 Czech Republic: Marked Downturn in Growth Dynamics

Sudden collapse of GDP growth via trade channel

In 2008, real GDP growth slowed noticeably from 4.4% in the first quarter to 0.2% in the last quarter, bringing the annual average growth rate to 3.2%. After a gradual deceleration in the first three quarters, economic growth fell abruptly in the closing quarter. In the third quarter, external trade still contributed substantially to economic expansion, while negative stock changes put a major damper on growth in the wake of a deteriorating external environment and worsening export expectations. The latter started to materialize strongly in the final quarter of 2008, in which the growth contribution of net exports turned negative. Domestic consumption and positive stock changes managed to somewhat counteract this development. After a gradual slowdown in the first nine months of the year, investment growth came almost to a halt in the final quarter, notably suffering from a sharp fall in housing construction. Industrial production decreased by more than 17% in December 2008; in the automobile sector, which is particularly important for the Czech economy, the contraction amounted to around 25%.

Economic policy environment dominated by faded inflationary and emerging recession risks

On the back of lower inflationary pressure from food and energy as well as weakening demand, inflation continuously declined since the beginning of 2008. Headline inflation adjusted for first-round effects of changes to indirect taxes, i.e. the inflation rate relevant for CNB monetary policy, dropped well below the inflation target of 3%. In response to fading inflationary risks and looming recession threats, the CNB lowered its key interest rate since November 2008 in three steps by 175 basis points to 1.75%. In addition, the economy has been provided with a fiscal stimulus amounting to almost 1% of GDP. Further fiscal measures are currently being debated in parliament, with good prospects of being approved soon, which would lift the fiscal stimulus well above 2% of GDP. These measures focus particularly on investment support as well as on the reduction of the tax burden and labor costs. Inter alia, they include shortened write-off periods or a reduction of the corporate income tax and of social insurance rates for both employers and employees.

Long-lasting labor market improvement seems over

As the labor market reacts with some lag to GDP developments, the economic slowdown started feeding through to the labor market in the closing quarter of 2008. Although unemployment has gone up only moderately so far, a further deterioration is likely. As in other countries, ULC jumped in the last quarter of 2008, due to the drop in productivity that accompanied the output slump. Although the depreciation of the Czech koruna observed in the second half of 2008 and in early 2009 offset some of the pressure, the fourth-quarter ULC increase was still more pronounced when expressed in euro (given the koruna's strong appreciation until mid-2008, which was, as of the final quarter, not completely reversed in year-on-year terms).

A deterioration of the terms of trade, which was partly caused by strong currency appreciation in the first half of 2008, along with much lower demand in the EU weighed on the trade balance, which turned negative in the closing quarter. The current account deficit rose in parallel, reaching its highest level since 2004, but was amply covered by still solid FDI inflows. Driven by the general rise in risk aversion, financial market concerns about the (real) impacts of the financial crisis and the implied negative outlook for exports and FDI, the koruna lost more than 28% of its value against the euro between its mid-2008 peak and mid-February 2009. Although it has recovered noticeably since then, exchange rate volatility has remained elevated.

Table 9

Main Economic Indicators: Czech Republic

	2006	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	6.8	6.0	3.2	5.8	5.9	4.4	4.4	4.0	0.2
Private consumption	5.4	5.3	2.8	5.6	3.7	2.7	3.3	2.8	2.5
Public consumption	-0.7	0.4	0.9	-1.3	3.7	-0.8	2.0	2.6	-0.2
Gross fixed capital formation	6.5	6.7	3.1	5.9	6.5	4.5	4.5	3.4	0.3
Exports of goods and services	15.8	14.9	6.9	16.1	13.5	14.1	15.0	9.0	-8.7
Imports of goods and services	14.2	14.2	4.6	15.6	11.4	12.3	10.5	4.3	-6.9
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	5.6	5.2	1.1	5.3	4.1	2.3	0.2	-0.1	2.0
Net exports of goods and services	1.2	0.7	2.3	0.4	1.9	2.2	4.5	4.6	-1.9
Exports of goods and services	13.7	14.0	7.0	14.5	13.5	14.6	14.7	8.9	-9.3
Imports of goods and services	12.4	13.3	4.7	14.1	11.6	12.4	10.2	4.3	-7.4
<i>Year-on-year change of the period average in %</i>									
Labor productivity of industry (real)	9.4	6.6	0.9	4.4	5.6	3.7	4.8	4.7	-10.1
Gross average wage of industry (nominal)	6.1	8.6	8.3	8.4	8.0	11.6	8.7	7.5	5.9
Unit labor cost of industry (nominal)	-3.0	1.8	7.3	3.9	2.3	7.7	3.7	2.7	17.8
Producer price index (PPI) of industry	1.6	4.0	4.5	3.9	5.0	5.6	5.1	5.5	1.6
Consumer price index (here: HICP)	2.1	3.0	6.3	2.7	4.9	7.6	6.7	6.5	4.4
EUR per 1 CZK, + = CZK appreciation	5.1	2.1	11.3	1.4	4.5	9.7	13.9	16.0	5.8
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15–64 years)	7.1	5.3	4.4	5.1	4.9	4.5	4.3	4.3	4.5
Employment rate (15–64 years)	65.3	66.1	66.5	66.3	66.5	66.1	66.6	66.7	66.8
Key interest rate per annum (%)	2.2	2.9	3.5	3.1	3.4	3.6	3.8	3.6	3.0
CZK per 1 EUR	28.3	27.8	25.0	27.9	26.8	25.6	24.8	24.1	25.3
<i>Nominal year-on-year change of the period average stock in %</i>									
Broad money (including foreign currency deposits)	12.4	14.4	13.1	14.7	15.3	14.9	12.5	12.4	12.8
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	1.2	-1.6	-1.9	-0.8	-2.0	-2.3	-4.5	-2.0	0.9
Domestic credit of the banking system	9.2	15.7	11.8	16.7	16.2	14.9	13.1	9.2	10.3
of which: claims on the private sector	11.9	14.3	15.4	15.1	16.8	17.4	16.5	15.0	13.0
claims on households	6.7	7.7	8.2	7.9	8.5	8.9	8.5	8.1	7.3
claims on enterprises	5.2	6.6	7.2	7.2	8.2	8.5	8.0	6.9	5.7
claims on the public sector (net)	-2.7	1.4	-3.6	1.6	-0.5	-2.6	-3.4	-5.8	-2.7
Other domestic assets (net) of the banking system	2.0	0.3	3.3	-1.2	1.1	2.3	3.9	5.2	1.7
<i>% of GDP, ESA 95</i>									
General government revenues	41.2	42.0	40.9	..	..	..	..	..	..
General government expenditures	43.8	42.6	42.4	..	..	..	..	..	..
General government balance	-2.6	-0.6	-1.5	..	..	..	..	..	..
Primary balance	-1.5	0.5	-0.3	..	..	..	..	..	..
Gross public debt	29.6	28.9	29.8	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	20.6	18.1	10.7	18.9	16.6	17.6	20.8	15.2	-8.4
Merchandise imports	20.7	15.8	11.4	16.8	14.3	18.8	18.7	13.9	-3.4
<i>% of GDP (based on EUR), period total</i>									
Trade balance	2.0	3.4	2.8	2.4	2.9	4.9	4.2	2.9	-0.7
Services balance	1.4	1.6	2.2	1.8	1.2	2.5	2.3	2.1	1.9
Income balance (factor services balance)	-5.6	-7.7	-7.8	-9.3	-8.1	-4.1	-12.7	-7.4	-6.7
Current transfers	-0.4	-0.5	-0.3	-0.6	-0.3	0.1	0.2	-0.8	-0.7
Current account balance	-2.6	-3.2	-3.1	-5.7	-4.2	3.4	-6.0	-3.2	-6.2
Capital account balance	0.3	0.6	0.8	0.4	1.5	0.8	1.3	0.2	1.0
Foreign direct investment (net)	2.8	5.1	4.1	4.7	6.7	2.4	5.6	4.4	3.7
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	38.2	40.6	38.9	38.7	40.6	41.0	44.7	43.0	38.9
Gross official reserves (excluding gold)	20.9	18.5	17.7	18.7	18.5	18.0	17.2	17.2	17.7
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	3.4	3.0	3.0	3.0	3.0	2.9	2.8	2.8	3.0
<i>EUR million, period total</i>									
Gross domestic product in current prices	113,508	127,244	148,620	31,969	34,403	34,302	38,223	38,895	37,201

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

6 Hungary: Global Crisis Pushes the Economy into Recession

GDP contracts on collapsing domestic demand...

Hungary's GDP fell by 2.3% in the final quarter of 2008. On the expenditure side, domestic consumption represented a major drag on growth. This mirrored a deterioration in the labor market, sharply limited access to credit for households, and austerity measures implemented by the government in response to the financial crisis. Gross fixed capital formation posted the fourth contraction in a row, reflecting worsening economic prospects both at home and abroad and a marked deterioration in access to credit for enterprises. Exports contracted sharply in the last quarter of 2008 as a result of faltering external demand, but since the drop in imports was even bigger, net exports delivered a minor positive contribution to growth.

... but the economic downturn eases pressure on inflation

As a result of the economic downturn and helped by base effects, inflation decelerated considerably in recent months (to 2.9% year on year in February 2009, from around 7% in mid-2008). The weak economic environment seems to have helped contain the pass-through to inflation of the sharp weakening of the forint over the past few months (by around 20% versus the euro between end-September 2008 and mid-March 2009). The recession could also limit potential secondary effects of further fiscal consolidation measures (main VAT rate and excise duty hikes) envisaged to take effect from July 2009 but yet to be approved by parliament. As a result of these measures (estimated impact on headline inflation: around 1 percentage point), Magyar Nemzeti Bank (MNB) expects annual average inflation to rise to 3.7% in 2009, i.e. above its 3% medium-term target, but to return to slightly below the target in 2010 (2.8%).

International financial assistance to mitigate the impact of the crisis

Since October 2008 Hungary has been affected severely by the global financial crisis. In particular, the government bond market became illiquid at the beginning of October 2008. Lending by domestic banks came to a standstill (adjusted for valuation effects, including exchange rate changes). In order to alleviate external financing risks, not least in light of private creditors' unwillingness to fully roll over maturing external debt especially vis-à-vis the public sector, in early November 2008, the IMF, the EU and the World Bank jointly provided EUR 20 billion in financial assistance.

The authorities are extending measures in response to the financial crisis

In line with the IMF agreement, and in an attempt to restore confidence and contain public sector financing needs to available means, the government in October 2008 adopted an economic policy package, which included fiscal tightening, better fiscal governance and – in addition to liquidity-improving measures by the MNB – measures to support the banking sector. Furthermore, in April 2009, the government decided to inject, through loans, a combined EUR 1.4 billion into two major banks by mid-2009, which will be financed from the EUR 20 billion of international financial assistance. Also, the government intends to extend until end-2009 the agreement with commercial banks about the voluntary restructuring of foreign currency loans to households. It also introduced legislation to provide temporary government guarantees for mortgage payments of persons that (have) become unemployed due to the financial crisis. As the economic slowdown turned out to be more severe than previously expected, the Hungarian government decided on further corrective measures in mid-February 2009 (pending parliamentary approval) and to cap the 2009 budget deficit at 2.9% of GDP (original target: 2.6%). Also, the MNB adopted additional measures in February and March 2009 to improve the foreign currency liquidity of Hungarian banks (long-term foreign exchange swaps, announcement of the future conversion of EU funds on the market).

Table 10

Main Economic Indicators: Hungary

	2006	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	4.1	1.1	0.5	0.6	0.5	1.7	2.1	0.8	-2.3
Private consumption	1.7	0.6	-0.7	0.3	0.7	0.4	1.2	-0.1	-4.3
Public consumption	4.3	-7.4	0.5	-2.3	-2.7	2.1	1.8	3.0	-4.3
Gross fixed capital formation	-6.2	1.5	-2.6	-1.3	4.0	-5.1	-1.9	-1.5	-2.7
Exports of goods and services	18.6	15.9	4.6	17.1	12.2	15.1	9.3	3.5	-7.8
Imports of goods and services	14.8	13.1	4.0	14.8	10.0	12.6	10.2	2.8	-8.2
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	1.9	-1.0	-0.1	-1.3	-1.3	-0.8	2.7	0.3	-2.4
Net exports of goods and services	3.0	2.9	0.8	2.5	2.4	3.2	-0.7	0.9	0.2
Exports of goods and services	16.6	16.2	5.3	17.0	12.8	17.9	10.7	4.1	-9.1
Imports of goods and services	13.6	13.3	4.5	14.5	10.3	14.7	11.4	3.2	-9.3
<i>Year-on-year change of the period average in %</i>									
Labor productivity of industry (real)	11.5	9.3	-0.9	10.6	8.5	6.1	3.4	-2.6	-11.0
Gross average wage of industry (nominal)	8.6	8.4	6.6	7.7	7.6	7.7	7.1	6.9	4.9
Unit labor cost of industry (nominal)	-2.6	-0.8	7.6	-2.6	-0.8	1.5	3.5	9.7	17.9
Producer price index (PPI) of industry	6.7	-0.1	5.5	-2.8	0.1	5.2	5.6	3.9	7.2
Consumer price index (here: HICP)	4.0	7.9	6.0	7.3	7.1	6.9	6.8	6.3	4.2
EUR per 1 HUF, + = HUF appreciation	-6.1	5.1	-0.1	9.4	2.9	-2.7	0.1	6.7	-4.0
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15-64 years)	7.5	7.3	7.8	7.3	7.8	7.6	7.7	7.8	8.1
Employment rate (15-64 years)	57.3	57.3	56.6	57.7	57.1	56.1	56.5	57.3	56.7
Key interest rate per annum (%)	6.8	7.8	8.7	7.7	7.5	7.5	8.3	8.5	10.6
HUF per 1 EUR	264.3	251.3	251.7	251.8	252.9	259.3	248.0	236.1	263.4
<i>Nominal year-on-year change of the period average stock in %</i>									
Broad money (including foreign currency deposits)	16.2	9.8	11.2	8.5	11.4	13.8	13.3	9.8	8.3
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	-2.2	-5.6	-7.5	-5.9	-7.2	-8.9	-9.1	-5.5	-6.8
Domestic credit of the banking system	23.6	17.9	22.0	15.3	19.9	26.3	24.0	16.7	21.3
of which: claims on the private sector	21.7	14.4	20.4	13.3	16.9	23.8	21.8	14.7	21.5
claims on households	9.4	8.1	10.5	7.5	8.5	10.9	10.2	8.3	12.5
claims on enterprises	12.3	6.3	9.9	5.8	8.3	12.8	11.6	6.5	9.0
claims on the public sector (net)	1.9	3.5	1.6	1.9	3.0	2.6	2.3	2.0	-0.2
Other domestic assets (net) of the banking system	-5.2	-2.5	-3.2	-0.8	-1.3	-3.6	-1.6	-1.4	-6.1
<i>% of GDP, ESA 95</i>									
General government revenues ¹	42.7	44.8	46.5	..	..	..	..	..	..
General government expenditures ¹	51.9	49.7	49.8	..	..	..	..	..	..
General government balance ¹	-9.2	-4.9	-3.4	..	..	..	..	..	..
Primary balance ¹	-5.3	-0.9	0.8	..	..	..	..	..	..
Gross public debt ¹	65.6	65.8	73.0	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	17.5	17.1	5.8	19.2	12.5	15.1	13.8	6.1	-10.2
Merchandise imports	16.5	12.6	6.1	13.5	8.8	12.7	13.6	8.3	-8.7
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-2.3	0.3	0.1	0.2	0.7	1.6	0.5	-1.1	-0.3
Services balance	1.4	1.0	0.9	1.6	0.5	0.3	1.1	1.8	0.2
Income balance (factor services balance)	-6.2	-7.4	-8.1	-6.8	-6.8	-7.9	-7.9	-8.8	-7.9
Current transfers	-0.5	-0.5	-1.2	-1.6	0.3	-1.1	-1.1	-1.2	-1.6
Current account balance	-7.6	-6.5	-8.4	-6.6	-5.3	-7.1	-7.5	-9.3	-9.7
Capital account balance	0.6	1.1	1.1	2.3	1.3	3.4	0.5	0.5	0.3
Foreign direct investment (net)	3.2	1.7	3.1	5.6	2.9	2.1	4.5	0.3	5.6
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	90.5	97.2	113.2	94.9	97.2	100.2	105.2	107.6	113.2
Gross official reserves (excluding gold)	18.2	16.1	22.6	16.6	16.1	16.5	16.8	16.4	22.6
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	2.8	2.5	3.4	2.5	2.5	2.5	2.5	2.4	3.4
<i>EUR million, period total</i>									
Gross domestic product in current prices	89,967	101,137	105,378	25,714	27,394	23,406	26,839	28,437	26,695

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

¹ Including the net costs of the pension reform.

7 Poland: Looming Stagnation – Fiscal Policy Response Trying to Square the Circle

Growth slowdown accelerates in the fourth quarter, with private consumption remaining the main pillar of growth

Real GDP growth averaged 4.8% in 2008, falling from 6.2% in the first quarter to 2.3% in the fourth quarter, as the deteriorating external environment led to markedly lower growth of fixed investment since the summer and to the contraction of exports since the fall of 2008. Deteriorating sentiment and limited credit availability contributed to the worsening of the economic situation.

Due to pass-through effects, annual HICP inflation increased to 3.6% in February 2009 (up from 3.2% in January, but down from 4.5% in July 2008). Having assessed the medium-term inflation outlook as positive, the Narodowy Bank Polski (NBP) lowered the key interest rate by another 25 basis points to 3.75% at the end of March 2009, following four cuts from 6% as from end-October 2008.

The zloty depreciated against the euro by 34% from its peak at end-July 2008 to a low at mid-February 2009. The correction was attributable to the worsening outlook for exports and for capital inflows as well as rising risk aversion. Many companies had to start buying euro to close foreign exchange call options which they had sold in exchange for insurance against further zloty appreciation. This further weakened the zloty. From mid-February to end-March 2009, the zloty gradually recovered by 7%.

Weaker zloty helps compensate for increase in ULC

Given the high share of foreign currency-denominated debt, the depreciation of the zloty may curb domestic demand, as unhedged borrowers cut spending. Yet, the weaker zloty also supports the foreign trade balance, as the depreciation helps compensate for the downturn-driven large increase in ULC.

The current and capital account deficit increased to 5.5% of GDP in the fourth quarter of 2008. In January 2009, however, imports fell more sharply than exports and the income balance improved further, which implied a lower current account deficit year on year. By contrast, the capital account balance continued to deteriorate also in January. In 2008, net FDI inflows had covered half of the current and capital account deficit; they turned negative in December 2008, but recovered again in January 2009. While net portfolio capital inflows continued to be negative in January, other investment inflows turned positive, but were lower year on year.

Income tax reform and higher spending plans for public investment are geared at providing fiscal stimulus but intentions to cling to the deficit target put a question mark to its eventual size

The convergence program envisages a fiscal deficit of 2.5% of GDP in 2009 (2008: 3.9%), assuming 3.7% of GDP growth and a mild increase in the revenue-to-GDP ratio. The program entails fiscal stimulus measures (income tax reductions, increased public investment) estimated at 1 percentage point. In March 2009, the ministry of finance lowered its growth forecast to between 1.7% and 3.7%. The full-year deficit target of 2.5% is to remain unchanged. It remains to be seen to what extent this will reduce the originally envisaged fiscal stimulus.

The Polish government has stepped up efforts to adopt the euro by 2012, but at the time of writing, it is uncertain whether Poland will actually request to join ERM II in the near future. At end-March 2009, the NBP reiterated that Poland should join ERM II and the euro area as early as possible, once it will have mobilized sufficient political support to implement the constitutional changes needed for euro adoption. Currently, the two-thirds majority required for these changes is out of reach. The government has expressed that it will not necessarily seek agreement on constitutional changes before ERM II entry. It is currently considering whether and, if so, in what way the present setting of high exchange rate volatility and the current valuation of the zloty impinge on the time lines toward ERM II entry.

Table 11

Main Economic Indicators: Poland

	2006	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	6.2	6.7	4.8	5.7	7.2	6.2	5.8	5.2	2.3
Private consumption (excl. NPISH ¹)	4.8	5.0	5.3	4.5	3.6	5.8	5.5	5.1	5.0
Public consumption (incl. NPISH)	5.8	3.7	0.0	3.1	5.2	-0.9	-1.9	1.4	1.4
Gross fixed capital formation	15.6	17.3	7.9	16.6	15.1	14.9	15.5	4.8	2.9
Exports of goods and services	14.6	9.1	5.8	8.1	9.7	11.0	8.3	6.8	-2.1
Imports of goods and services	17.4	13.5	6.2	13.9	11.2	11.1	8.5	5.6	0.4
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	7.3	9.0	5.2	8.7	8.4	6.7	6.3	5.0	3.2
Net exports of goods and services	-1.2	-2.0	-0.3	-2.7	-0.9	-0.3	-0.3	0.3	-1.0
Exports of goods and services	5.4	3.7	2.4	3.3	3.7	4.6	3.4	2.8	-0.8
Imports of goods and services	6.6	5.7	2.7	6.0	4.6	4.8	3.8	2.5	0.2
<i>Year-on-year change of the period average in %</i>									
Labor productivity of industry (real)	9.5	6.0	1.7	4.5	4.8	5.1	5.1	1.2	-4.7
Gross average wage of industry (nominal)	5.2	8.7	9.7	8.8	9.3	10.4	11.2	10.1	7.4
Unit labor cost of industry (nominal)	-4.0	2.6	7.8	4.1	4.3	5.0	5.8	8.8	12.7
Producer price index (PPI) of industry	2.2	2.2	2.6	1.6	2.2	3.0	2.5	2.2	2.5
Consumer price index (here: HICP)	1.3	2.6	4.2	2.4	3.7	4.5	4.3	4.4	3.6
EUR per 1 PLN, + = PLN appreciation	3.2	3.0	7.7	4.3	5.2	8.7	11.5	14.6	-2.9
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15-64 years)	13.9	9.6	7.2	9.3	8.6	7.6	7.3	6.9	6.9
Employment rate (15-64 years)	54.5	57.0	59.2	57.8	58.1	58.1	58.9	60.0	60.0
Key interest rate per annum (%)	4.1	4.4	5.7	4.6	4.9	5.4	5.8	6.0	5.8
PLN per 1 EUR	3.9	3.8	3.5	3.8	3.7	3.6	3.4	3.3	3.8
<i>Nominal year-on-year change of the period average stock in %</i>									
Broad money (including foreign currency deposits)	12.6	15.9	15.8	15.4	13.8	13.3	15.0	16.8	17.8
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	1.7	-5.7	-11.0	-7.3	-8.8	-11.5	-10.6	-9.6	-12.3
Domestic credit of the banking system	12.0	20.8	26.1	21.1	20.3	21.6	23.4	24.9	33.8
of which: claims on the private sector	10.9	20.8	23.9	22.4	23.0	23.0	22.7	22.2	27.3
claims on households	8.6	13.8	15.5	14.6	14.9	14.8	14.7	14.3	18.2
claims on enterprises	2.3	7.0	8.3	7.8	8.1	8.2	8.0	8.0	9.1
claims on the public sector (net)	1.2	0.0	2.2	-1.3	-2.7	-1.4	0.7	2.7	6.4
Other domestic assets (net) of the banking system	-1.1	0.8	0.7	1.6	2.2	3.2	2.2	1.5	-3.7
<i>% of GDP, ESA 95</i>									
General government revenues ²	39.9	40.2	39.2	..	..	..	..	..	..
General government expenditures ²	43.8	42.1	43.1	..	..	..	..	..	..
General government balance ²	-3.9	-1.9	-3.9	..	..	..	..	..	..
Primary balance ²	-1.2	0.4	-1.7	..	..	..	..	..	..
Gross public debt ²	47.7	44.9	47.1	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	20.3	13.4	12.2	13.9	11.9	20.3	21.3	17.8	-8.4
Merchandise imports	23.9	19.5	14.1	18.2	18.8	20.6	23.2	20.5	-5.2
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-2.0	-4.0	-4.5	-3.8	-4.4	-3.6	-4.7	-4.5	-5.1
Services balance	0.2	1.1	0.9	0.9	1.5	0.6	0.9	0.7	1.1
Income balance (factor services balance)	-2.8	-3.8	-3.2	-3.2	-3.8	-3.5	-4.2	-2.7	-2.4
Current transfers	1.9	2.0	1.4	2.1	1.6	1.1	1.9	2.1	0.4
Current account balance	-2.7	-4.7	-5.4	-4.0	-5.1	-5.3	-6.0	-4.3	-6.0
Capital account balance	0.6	1.1	1.1	1.1	1.8	1.6	1.9	0.4	0.5
Foreign direct investment (net)	3.2	4.2	2.3	4.8	3.2	3.1	2.8	2.1	1.6
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	47.3	50.9	47.6	49.1	50.9	52.4	53.3	51.6	47.6
Gross official reserves (excluding gold)	12.9	13.8	11.7	13.2	13.8	14.4	14.7	13.8	11.7
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	3.7	3.8	3.3	3.6	3.8	3.9	4.0	3.8	3.3
<i>EUR million, period total</i>									
Gross domestic product in current prices	272,199	311,282	360,641	76,691	90,841	82,590	90,960	94,345	92,746

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

¹ Nonprofit institutions serving households.² Including the net costs of the pension reform.

GDP growth plunges and its composition changes

8 Romania: Turning to the IMF and the EU for Macrofinancial Assistance

Following buoyant real GDP expansion in the first three quarters, a sharp deceleration of growth was recorded in the final quarter of 2008, bringing full-year GDP growth to 7.1%. The fourth quarter 2008 entailed an abrupt shift in the composition of growth, which had hitherto been characterized by surging domestic demand and negative growth contributions by net exports. Private consumption declined by 4.5%, partly driven by a slowdown of credit growth (adjusted for exchange rate changes). Against the backdrop of worsening economic prospects and tighter financing conditions, investments grew by a mere 2.8% in the final quarter of 2008. Despite continued growth of public consumption, overall domestic demand contracted in the closing quarter, while the contribution of net exports turned positive as imports declined and exports stagnated.

The slowing economy and favorable base effects helped reduce HICP inflation from its peak of 9.1% in July 2008 to 6.4% in December. Inflation edged up to 6.9% in February 2009, presumably due to pass-through effects. Despite this increase, the Banca Națională a României (BNR) cut its key policy rate by 25 basis points to 10% in early February, citing an improved medium-term inflation outlook. The BNR forecasts inflation to fall to 4.5% by end-2009, i.e. the upper end of its inflation target range (3.5% ± 1 percentage point).

Mainly driven by improvements in the trade balance, the current account deficit declined in the second half of 2008 despite a continued rise in ULC in industry, but still amounted to 12.3% of GDP for 2008. The current account adjustment gained momentum in January 2009, as the deficit was only half as high as one year earlier. In 2008, about half of the current account gap was covered by net FDI.

Romania ranks among the countries hit hardest by the global financial market crisis, as external vulnerabilities began to materialize. Given the high share of foreign currency loans, the currency's weakness increases credit risk for banks as many foreign currency borrowers are likely to be unhedged. As from mid-January 2009, the Romanian leu stabilized against the euro (down about 35% from its July 2007 peak), amid recurrent interventions by the BNR. Expectations of international macrofinancial assistance may have contributed to exchange rate stabilization.

Stand-By Arrangement is being put in place

To preempt a further drain on foreign exchange reserves and in view of high external refinancing needs, Romania turned to the IMF and the EU for financial assistance. In March 2009, a two-year Stand-By Arrangement of EUR 12.95 billion was agreed between Romania and IMF staff (the IMF's Executive Board will deal with this matter in early May), which is part of a multilateral financial support package to which the EU (EUR 5 billion), the World Bank (EUR 1 billion), the EBRD and other multilaterals (EUR 1 billion) contribute further funds. Moreover, nine foreign banks (holding a market share of 70% of assets) pledged to continue to keep up their business in Romania and to provide additional capital to their subsidiaries if needed.

Loose fiscal policy in 2008, budget for 2009 to be revised

The program agreed with the IMF inter alia contains tighter fiscal policies. In 2008, the budget deficit rose to 5.4% of GDP. In February 2009, the parliament adopted the 2009 budget plan, which – under the assumption of +2.5% GDP growth – envisaged a reduction of the budget deficit to 2% of GDP. In the meantime, the GDP forecast for 2009 has been corrected to –4%, and the budget will need to be revised shortly to bring it in line with the cash deficit target of 4.6% (corresponding to 5.1% in ESA 95 terms) agreed with the Fund.

Table 12

Main Economic Indicators: Romania

	2006	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	7.9	6.2	7.1	5.8	6.8	8.2	9.3	9.2	2.9
Private consumption	12.8	11.6	9.1	10.8	10.5	15.5	13.4	16.0	-4.5
Public consumption	-3.8	1.2	3.1	7.5	-4.6	5.4	-0.8	4.2	3.9
Gross fixed capital formation	19.9	28.9	19.3	32.2	28.0	33.2	30.0	24.3	2.8
Exports of goods and services	9.8	7.8	18.9	4.1	13.8	25.8	30.7	21.1	-0.2
Imports of goods and services	22.7	27.8	17.1	26.6	30.6	35.1	28.8	19.5	-10.4
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	15.3	17.8	12.0	19.1	16.6	21.6	21.9	14.0	-2.6
Net exports of goods and services	-10.2	-16.6	-6.3	-17.0	-13.7	-19.6	-13.4	-7.7	7.7
Exports of goods and services	4.3	3.5	8.5	1.7	4.9	15.4	14.7	8.8	-0.1
Imports of goods and services	14.4	20.1	14.9	18.7	18.6	35.0	28.0	16.4	-7.8
<i>Year-on-year change of the period average in %</i>									
Labor productivity of industry (real)	11.3	9.5	5.1	8.8	8.0	8.8	10.6	6.7	-5.7
Gross average wage of industry (nominal)	15.7	21.6	21.3	20.9	22.8	18.5	24.5	23.3	18.8
Unit labor cost of industry (nominal)	4.0	11.0	15.4	11.1	13.7	8.9	12.6	15.6	26.0
Producer price index (PPI) of industry	11.7	8.1	15.8	6.1	9.3	14.4	17.2	19.6	12.1
Consumer price index (here: HICP)	6.6	4.9	7.9	5.1	6.8	8.0	8.6	8.2	6.9
EUR per 1 RON, + = RON appreciation	2.7	5.7	-9.5	9.6	0.9	-8.3	-10.2	-9.6	-9.6
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15-64 years)	7.3	6.4	5.8	6.4	6.1	5.8	5.8	5.7	5.8
Employment rate (15-64 years)	58.8	58.8	59.1	60.5	57.9	57.7	59.7	60.5	58.3
Key interest rate per annum (%)	8.5	7.5	9.6	6.8	7.3	8.5	9.7	10.1	10.3
RON per 1 EUR	3.5	3.3	3.7	3.2	3.4	3.7	3.7	3.6	3.8
<i>Nominal year-on-year change of the period average stock in %</i>									
Money plus quasi money	28.2	27.8	32.6	26.2	31.9	36.8	38.7	33.3	23.4
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	1.5	-6.0	-11.2	-5.3	-11.3	-8.6	-10.9	-13.6	-11.2
Domestic credit of the banking system	31.1	39.7	57.9	36.7	52.6	60.7	62.6	59.4	50.5
of which: claims on the private sector	36.1	42.2	52.4	41.0	48.6	57.1	58.8	52.9	42.7
claims on households	19.0	23.3	28.8	22.5	27.4	31.6	32.5	28.9	23.2
claims on enterprises	17.1	19.0	23.6	18.5	21.2	25.5	26.4	24.0	19.4
claims on the public sector (net)	-4.9	-2.6	5.6	-4.3	3.9	3.6	3.7	6.5	7.9
Other domestic assets (net) of the banking system	-4.5	-5.8	-14.2	-5.1	-9.4	-15.3	-13.0	-12.5	-15.9
<i>% of GDP, ESA 95</i>									
General government revenues	33.1	34.0	33.1	..	..	..	..	..	..
General government expenditures	35.3	36.6	38.5	..	..	..	..	..	..
General government balance	-2.2	-2.5	-5.4	..	..	..	..	..	..
Primary balance	-1.3	-1.8	-4.7	..	..	..	..	..	..
Gross public debt	12.4	12.7	13.6	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	16.4	13.8	13.8	13.4	16.8	13.5	20.9	19.5	2.2
Merchandise imports	25.5	25.4	9.4	24.2	20.1	12.4	16.4	17.3	-5.9
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-12.1	-14.4	-13.3	-12.6	-14.2	-15.7	-15.1	-12.7	-11.1
Services balance	0.0	0.4	0.6	0.2	-0.1	0.3	1.1	-0.5	1.5
Income balance (factor services balance)	-3.3	-3.4	-4.1	-3.8	-2.6	-4.5	-4.5	-3.4	-4.1
Current transfers	4.9	3.9	4.4	4.2	2.8	5.7	4.1	5.2	3.2
Current account balance	-10.4	-13.5	-12.3	-11.9	-14.2	-14.2	-14.4	-11.5	-10.5
Capital account balance	0.0	0.7	0.4	0.5	0.9	0.6	0.5	0.1	0.6
Foreign direct investment (net)	8.9	5.7	6.8	6.5	3.3	6.5	10.3	4.9	5.9
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	41.9	47.6	52.9	46.3	47.6	47.4	50.6	49.1	51.4
Gross official reserves (excluding gold)	21.8	20.5	19.2	21.6	20.5	19.9	19.1	19.4	19.2
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	5.9	5.6	5.3	5.9	5.6	5.4	5.1	5.1	5.3
<i>EUR million, period total</i>									
Gross domestic product in current prices	97,931	123,660	136,661	34,545	39,363	24,705	31,509	38,673	41,774

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

9 Croatia: Coping with Spillovers from the Global Financial Crisis

From overheating to recession fears

Amid the global financial turmoil, the Croatian economy gradually lost momentum over the course of 2008. GDP growth decelerated from 4.3% in the first to only 0.2% in the final quarter of 2008, thus averaging 2.4% in 2008. This development came mainly on the back of a marked slowdown of private consumption, which even contracted by 3.2% in the fourth quarter of 2008, given waning consumer confidence, tighter credit and deteriorating labor market conditions (in terms of employment and unemployment figures as well as wage dynamics). Similarly, investment activity slowed considerably toward end-2008, but with a growth rate of 3.5% in the closing quarter of 2008, gross fixed capital formation, driven by robust construction activity, remained the backbone of the Croatian economy. Given plunging export and import demand, imports contracted by 7.1% and exports by 2.5% in the final quarter of 2008. Hence, the contribution of net exports shifted into positive territory in the fourth quarter of 2008.

Global financial turmoil hits Croatian financial markets

Having reached a peak in July 2008 at 8.4% year on year, inflation had moderated to 2.9% in December 2008, given easing energy and food price pressures and large base effects. Inflation, however, accelerated to 4.2% in February 2009, mainly due to tax and regulated price adjustments, but the recent depreciation of the kuna may have played some role, too. In fact, given falling investor and depositor confidence, the kuna has come under some downward pressure since October 2008. Hrvatska narodna banka (HNB) allowed for some moderate depreciation of the kuna, but to prevent a more marked weakening, it not only increased the foreign exchange component of the reserve requirement, which is to be allocated in kuna, from 50% to 75%, but also undertook outright market interventions, which decreased the country's foreign exchange reserves to EUR 8.6 billion by February 2009, down from EUR 9.8 billion in September 2008. Moreover, the HNB reduced reserve requirements from 17% to 14%, decreased the foreign currency liquidity ratio in two steps from 28.5% to 20% and raised banks' maximum allowed open foreign exchange position from 20% to 30% of own funds.

Budget 2009 revised to improve resilience

In early 2009, the government adopted a set of anti-recession measures and revised the 2009 budget, which had originally targeted a deficit of 0.9% of GDP. The new budget proposal envisages a deficit of 1.5% of GDP. With a view to financing the budget deficit and to refinancing maturing public debt, the government, in early 2009, took out a EUR 1 billion loan from domestic banks (for which the HNB relaxed liquidity provisions so that banks were able to extend this loan without recourse to additional external funding) and plans to issue a euro-bond worth at least EUR 750 million in May.

External vulnerabilities pose a challenge to the authorities

Croatia's external deficits widened considerably in 2008, with the combined current and capital account deficit reaching 9.2% of GDP. At the same time, net FDI coverage decreased and access to debt finance has become more difficult and/or expensive, while Croatia's foreign debt increased considerably to some 82% of GDP in 2008. Until the third quarter, the corporate sector continued to borrow directly from abroad, but cross-border funding for corporations largely dried up in the fourth quarter of 2008. By contrast, in the context of HNB credit restrictions, banks gradually reduced their foreign liabilities over the first three quarters of 2008, but markedly stepped up foreign borrowing in the closing quarter (+EUR 2.1 billion) in order to compensate for the decrease in domestic funding sources partly caused by temporary deposit withdrawals.

Table 13

Main Economic Indicators: Croatia

	2006	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	4.7	5.5	2.4	4.8	3.5	4.3	3.4	1.6	0.2
Private consumption	3.5	6.2	0.8	6.2	4.8	4.2	2.3	0.4	-3.2
Public consumption	2.2	3.4	1.9	4.4	3.7	0.5	3.2	1.3	2.7
Gross fixed capital formation	10.9	6.5	8.2	5.7	4.0	9.8	12.6	6.6	3.5
Exports of goods and services	6.5	4.3	1.7	5.9	0.7	3.6	4.4	1.6	-2.5
Imports of goods and services	7.4	6.5	3.6	8.2	6.8	7.1	8.3	6.5	-7.1
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	5.8	7.1	3.5	5.4	7.0	6.9	6.2	3.8	-2.7
Net exports of goods and services	-1.2	-1.7	-1.3	-0.6	-3.6	-2.7	-3.1	-2.5	3.3
Exports of goods and services	2.9	2.0	0.8	3.6	0.3	1.3	1.9	1.0	-1.0
Imports of goods and services	4.1	3.7	2.1	4.2	3.9	4.0	4.9	3.5	-4.3
<i>Year-on-year change of the period average in %</i>									
Labor productivity of industry (real)	2.7	2.5	2.9	1.4	0.3	4.7	5.2	1.5	0.1
Gross average wage of industry (nominal)	7.5	5.5	7.2	5.9	4.9	7.6	7.2	7.1	6.9
Unit labor cost of industry (nominal)	4.7	3.0	4.2	4.5	4.6	2.7	1.9	5.5	6.8
Producer price index (PPI) of industry	2.9	3.4	8.6	3.8	5.5	7.7	8.8	11.3	6.7
Consumer price index (here: CPI)	3.2	2.8	6.1	2.9	4.9	6.0	6.6	7.4	4.5
EUR per 1 HRK, + = HRK appreciation	1.1	-0.2	1.6	0.1	0.5	1.1	1.3	1.8	2.1
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15-64 years)	11.2	9.6	8.4	9.3	9.1	8.8	8.4	8.1	8.2
Employment rate (15-64 years)	55.6	57.2	..	58.9	57.4	56.0	57.6	59.7	..
Key interest rate per annum (%)	4.5	4.5	9.0	4.5	4.5	8.9	9.0	9.0	9.0
HRK per 1 EUR	7.3	7.3	7.2	7.3	7.3	7.3	7.3	7.2	7.2
<i>Nominal year-on-year change of the period average stock in %</i>									
Broad money (including foreign currency deposits)	14.0	17.9	11.5	17.5	14.6	15.0	12.9	10.7	7.9
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	-3.1	9.6	5.5	10.5	9.9	9.2	7.4	5.7	0.4
Domestic credit of the banking system	20.8	17.2	11.0	16.9	13.9	12.8	11.2	8.9	11.4
of which: claims on the private sector	20.2	19.6	11.9	18.8	15.9	13.8	11.5	11.0	11.3
claims on households	11.1	11.0	7.6	10.5	9.8	9.3	8.3	6.8	6.2
claims on enterprises	9.2	8.7	4.3	8.2	6.1	4.6	3.2	4.2	5.1
claims on the public sector (net)	0.6	-2.4	-0.8	-1.8	-1.9	-1.0	-0.3	-2.1	0.1
Other domestic assets (net) of the banking system	-3.8	-8.9	-5.1	-9.8	-9.2	-7.0	-5.7	-3.9	-3.9
<i>% of GDP, ESA 95</i>									
General government revenues	..	41.4	38.9	..	..	..	..	..	..
General government expenditures	..	43.0	41.1	..	..	..	..	..	..
General government balance	-2.5	-1.6	-2.2	..	..	..	..	..	..
Primary balance	-0.3	0.4	-0.3	..	..	..	..	..	..
Gross public debt	40.8	37.7	35.8	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	17.2	8.6	6.0	12.4	4.1	8.8	7.9	13.5	-5.3
Merchandise imports	14.0	10.8	10.6	10.2	12.0	13.9	15.7	15.8	-2.1
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-21.3	-22.0	-22.9	-19.8	-22.8	-23.6	-25.9	-21.0	-21.4
Services balance	14.6	14.7	14.7	36.8	3.4	0.9	15.1	35.2	4.1
Income balance (factor services balance)	-3.0	-2.7	-3.3	-1.6	-0.9	-2.5	-6.7	-2.0	-1.9
Current transfers	2.8	2.4	2.2	2.3	2.4	2.0	2.3	2.0	2.3
Current account balance	-6.9	-7.5	-9.3	17.7	-17.9	-23.2	-15.2	14.2	-16.8
Capital account balance	-0.3	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1
Foreign direct investment (net)	6.6	8.1	5.8	4.6	6.6	9.8	7.5	1.3	5.5
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	74.9	76.9	82.4	74.6	76.9	79.5	78.3	77.9	82.4
Gross official reserves (excluding gold)	22.3	21.7	19.3	21.0	21.7	22.4	22.0	21.1	19.3
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	5.3	5.2	4.6	5.1	5.2	5.3	5.2	4.9	4.6
<i>EUR million, period total</i>									
Gross domestic product in current prices	39,096	42,829	47,375	11,696	10,708	10,855	11,974	13,013	11,534

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

10 Turkey: A Major Downturn in Late 2008

Contraction of domestic economic activity in the fourth quarter exceeds expectations

Growth weakened throughout 2008 and turned negative in the fourth quarter of 2008 (−6.2%), yielding an annual growth rate of GDP of 1.1% in 2008. As elsewhere, the global liquidity squeeze impacted negatively on both domestic and external demand, but the downturn in Turkey began already in the second quarter of 2008 and has been much more pronounced than in the rest of the region. Tighter financing conditions and high uncertainty implied a substantial contraction of gross fixed capital formation, which intensified throughout the third and fourth quarter. Capacity utilization fell to record lows in December 2008. Industrial production contracted in almost all sectors of the economy. Private consumption also declined due to tight credit conditions, worsening consumer sentiment and increasing unemployment. Public consumption was the only component which still developed positively thanks to spending rises made possible by improved debt service dynamics. Plunging import demand helped produce a strongly positive contribution of net exports. Despite considerable regional and sectoral diversification in recent years, Turkey's export sector currently is in a weak position given the importance of the automotive sector, which has been hit especially hard by the global crisis. By end-2008, Turkey's car industry recorded a drop in orders of around 30%.

Disinflation allows for monetary easing

Inflation had fallen in the last quarter of 2008 and shrank even more in early 2009 in line with global trends. Against this background, the central bank started to lower interest rates from a high of 16.75% in July 2008 to 15% in December 2008. Three stronger rate cuts down to 10.5% followed until March 2009. The Turkish lira held up relatively well in the third quarter of 2008. Depreciation vis-à-vis the euro, however, accelerated in the fourth quarter, when risk aversion to emerging markets rose markedly. The Turkish currency stabilized again broadly only in March 2009. It is noteworthy that so far there has been only little evidence of a pass-through of exchange rate movements to inflation.

The budget deficit amounted to 1.3% of GDP in 2008. The 2009 budget deficit, which was passed in the fall of 2008, is targeted at 1.1% of GDP (in ESA 95 terms), based on an assumed GDP growth rate of +4%. To date, the government has announced four packages in support of the economy, which together correspond to about 3.5% of GDP (provided all measures are fully implemented). They are mostly aimed at supporting businesses, stimulating consumer demand and easing the credit squeeze. No support measures are being taken for the banking sector, given that the latter has weathered the crisis rather well so far. Solvency problems and systemic risks have to date been contained owing to a solid domestic deposit structure, capital buffers and the comparatively cautious credit policy of recent years.

IMF Stand-By Arrangement envisaged, but not yet agreed upon, which causes some uncertainty

The current account deficit narrowed considerably in the second half of 2008, but still leaves – especially longer-term – financing concerns. FDI inflows moderated over the same period, amid considerable portfolio outflows in the last quarter of 2008. The financial account turned negative in the fourth quarter, recording net outflows of about EUR 9 billion, after solid capital inflows in the first three quarters (having totaled more than EUR 30 billion). An external financing gap could open up if rollover rates on private sector debt should fall. Against this background, Turkey entered into talks with the IMF for a Stand-By Arrangement, which could prevent or, if need be, fill such a gap, but the negotiations were not continued before the local elections, which took place at the end of March 2009, and even now uncertainties remain.

Table 14

Main Economic Indicators: Turkey

	2006	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	6.9	4.7	1.1	3.2	4.2	7.3	2.8	1.2	-6.2
Private consumption	4.6	4.6	0.3	6.8	6.1	6.1	1.5	-1.3	-4.6
Public consumption	8.4	6.5	1.8	4.2	2.7	5.0	-5.0	1.2	6.1
Gross fixed capital formation	13.3	5.4	-4.6	4.4	8.5	9.5	-1.2	-6.9	-17.5
Exports of goods and services	6.6	7.3	2.6	4.6	3.3	13.3	3.9	3.6	-8.2
Imports of goods and services	6.9	10.7	-3.1	14.0	15.5	14.9	2.2	-2.8	-23.1
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	7.3	6.0	-0.5	5.7	7.8	8.6	2.5	-0.5	-11.4
Net exports of goods and services	-0.4	-1.4	1.5	-2.5	-3.6	-1.4	0.2	1.6	5.2
Exports of goods and services	1.5	1.7	0.6	1.1	0.8	3.0	0.9	0.8	-2.0
Imports of goods and services	1.9	3.0	-0.9	3.6	4.4	4.4	0.7	-0.8	-7.2
<i>Year-on-year change of the period average in %</i>									
Labor productivity in manufacturing (real)	6.7	1.7	..	0.1	4.0	4.6	3.8	0.9	..
Gross average wage in manufacturing (nominal)	11.5	9.4	..	10.9	9.9	8.8	10.5	9.7	..
Unit labor cost in manufacturing (nominal)	4.5	7.6	..	10.9	5.6	4.1	6.5	8.7	..
Producer price index (PPI) of industry	9.3	6.4	12.7	3.6	5.3	8.4	16.0	15.2	11.2
Consumer price index (here: HICP)	9.3	8.8	10.4	7.1	8.2	8.8	10.3	11.7	10.9
EUR per 1 TRY, + = TRY appreciation	-7.3	1.3	-6.3	8.1	8.8	2.5	-8.6	-3.0	-14.8
<i>Period average levels</i>									
Unemployment rate (ILO definition, %, 15-64 years)	..	8.6	9.4	8.7	8.6	8.8	8.7	9.4	10.6
Employment rate (15-64 years)	..	45.8	45.9	47.6	44.9	43.3	47.4	47.7	45.2
Key interest rate per annum (%)	15.6	17.2	16.0	17.5	16.5	15.4	15.6	16.7	16.4
TRY per 1 EUR	1.8	1.8	1.9	1.8	1.7	1.8	2.0	1.8	2.0
<i>Nominal year-on-year change of the period average stock in %</i>									
Broad money (including foreign currency deposits)	41.3	18.7	19.5	18.3	16.7	17.8	19.8	16.7	23.6
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	10.0	9.1	1.0	9.8	4.5	1.4	-0.6	-1.3	4.5
Domestic credit of the banking system	39.3	15.5	21.2	15.2	18.7	20.3	23.3	20.8	20.5
of which: claims on the private sector	31.7	16.7	19.7	15.2	16.7	18.4	21.2	20.6	18.8
claims on households	11.0	6.4	8.1	5.8	7.0	8.1	8.5	8.5	7.4
claims on enterprises	20.7	10.2	11.6	9.4	9.7	10.3	12.7	12.2	11.3
claims on the public sector (net)	7.6	-1.1	1.5	-0.1	1.9	1.9	2.1	0.2	1.8
Other domestic assets (net) of the banking system	-8.0	-5.9	-2.7	-6.7	-6.5	-3.9	-2.9	-2.9	-1.3
<i>% of GDP, ESA 95</i>									
General government revenues	..	18.3	18.3	..	..	..	..	..	..
General government expenditures	..	19.6	19.7	..	..	..	..	..	..
General government balance	-0.1	-1.2	-1.3	..	..	..	..	..	..
Primary balance	5.5	4.0	..	..	..	..	..	..	..
Gross public debt	46.1	38.9	35.1	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	17.8	12.9	13.8	10.7	11.0	23.4	13.3	24.8	-3.6
Merchandise imports	19.1	10.2	11.1	11.2	15.7	22.2	16.9	19.6	-11.7
<i>% of GDP (based on EUR), period total</i>									
Trade balance	-7.8	-7.2	-7.1	-7.5	-7.0	-6.8	-8.8	-7.4	-5.2
Services balance	2.6	2.1	2.4	4.2	1.1	0.7	1.7	4.3	2.4
Income balance (factor services balance)	-1.3	-1.1	-1.1	-1.0	-0.9	-1.1	-1.3	-0.8	-1.2
Current transfers	0.4	0.3	0.3	0.4	0.3	0.3	0.2	0.3	0.3
Current account balance	-6.1	-5.9	-5.5	-3.8	-6.4	-6.9	-8.2	-3.6	-3.7
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)	3.6	3.1	2.1	2.4	2.5	2.0	2.5	1.4	2.4
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	37.4	35.5	39.8	36.5	35.5	34.1	36.1	39.7	39.8
Gross official reserves (excluding gold)	11.1	10.5	10.2	11.2	10.5	9.8	9.6	10.6	10.2
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	4.8	4.6	4.3	4.9	4.6	4.3	4.1	4.4	4.3
<i>EUR million, period total</i>									
Gross domestic product in current prices	418,088	472,996	499,769	131,330	127,276	119,675	121,339	144,176	114,580

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

11 Russia: Fiscal Stimulus to Mitigate Spillovers from Crisis

While Russian growth was still buoyant in the first three quarters of 2008 (7.3%), the impact of the drastic worsening of the global financial crisis severely hit Russia in the fourth quarter: economic activity slowed down sharply (to +1%). Annual growth dropped to 5.6% in 2008. In January and February 2009, the economy contracted swiftly (estimated GDP drop of 8%).

During the second half of 2008, oil prices fell by more than 70%, before slightly recovering in the first quarter of 2009. This implies a major terms-of-trade shock for Russia. After the demise of Lehman Brothers, capital flows to Russia reversed and the structurally weak banking sector has been one of the main victims of the crisis, given its dependence on foreign borrowing, its direct exposure to the collapsed equity market and its segmented structure. Overnight lending rates spiked in November 2008 and January 2009, indicating a severe liquidity squeeze. A major part of the authorities' package of measures (about EUR 150 billion) went to shoring up the banking sector.

While the Central Bank of the Russian Federation (CBR) continued to intervene heavily in support of the ruble, persisting capital outflows upheld substantial downward pressures. In mid-November 2008, the CBR opted for a gradual devaluation policy, while somewhat tightening foreign exchange controls. It widened the ruble's corridor vis-à-vis its USD/EUR basket in more than 20 incremental steps. The strategy seems to have maintained devaluation expectations. It also provided room for economic agents to react by building up currency positions in view of future foreign-currency debt service obligations. Net capital outflows are estimated to have reached around EUR 100 billion in the fourth quarter of 2008, and EUR 22 billion in January 2009.

On January 23, 2009, the CBR declared the corridor widening exercise to be completed. Since then, the ruble has been fairly stable (having depreciated about 50% against the U.S. dollar and 25% against the euro from early August 2008 to mid-March 2009). The loss of international reserves has slowed down substantially (they dropped over a quarter to EUR 291 billion in the above period). Monthly capital outflows declined to EUR 3.5 billion in February 2009. The domestic credit boom slowed down sharply in recent months under the impact of the liquidity squeeze, the weakening of the ruble, the economic slump as well as the development of household deposits, which fell noticeably in October and November 2008 before broadly stabilizing thereafter (adjusted for exchange rate changes).

Inflation was subject to competing impacts from the sharp decline of M2 growth and of producer price inflation versus that of ruble depreciation. The CPI continued to increase at an elevated rate of 13.9% in February 2009. Given the devaluation, the annual rise in ULC (exchange rate adjusted) slowed down to 15% in 2008. The combined current and capital account surplus is rapidly shrinking due to terms-of-trade developments.

The federal government budget surplus fell to 4.1% of GDP in 2008 and to about 2.6% in January and February 2009. Revised fiscal plans for 2009 envisage a federal budget deficit of 7.4% of GDP (assuming a contraction of economic activity by 2.2% and an average oil price of USD 41 per barrel). The new budget plan reportedly includes crisis-response measures totaling 5.5% of GDP. The largest part of the deficit is to be financed by the country's Reserve Fund (which accounts for over 8% of GDP).

Russia hit particularly hard by plunge of oil price and capital outflows...

... leading to a devaluation of the ruble

While twin surpluses and international reserves are eroding, the latter are still sizeable

Massive fiscal stimulus to contain economic contraction

Table 15

Main Economic Indicators: Russia

	2006	2007	2008	Q3 2007	Q4 2007	Q1 2008	Q2 2008	Q3 2008	Q4 2008
<i>Year-on-year change of the period total in %</i>									
GDP in constant prices	7.7	8.1	5.6	7.7	9.0	8.7	7.5	6.0	1.0
Private consumption	11.2	13.6	11.2	14.2	13.7	12.0	13.3	12.1	7.9
Public consumption	2.4	3.4	2.5	2.4	3.5	2.7	2.4	2.6	2.4
Gross fixed capital formation	18.0	21.1	10.0	18.2	21.5	23.5	17.3	12.1	-2.0
Exports of goods and services	7.3	6.3	0.5	4.0	11.3	10.2	0.7	2.4	-8.4
Imports of goods and services	21.3	26.5	15.0	27.2	23.0	21.3	19.7	21.8	1.2
<i>Contribution to GDP growth in percentage points</i>									
Domestic demand	10.7	13.4	10.2	14.1	12.4	11.3	13.7	11.7	4.5
Net exports of goods and services	-3.7	-6.7	-5.8	-7.5	-4.5	-4.2	-7.4	-7.5	-3.8
Exports of goods and services	2.7	2.3	0.2	1.3	4.4	3.8	0.2	0.8	-3.3
Imports of goods and services	6.4	9.0	6.0	8.8	8.9	8.0	7.6	8.3	0.5
<i>Year-on-year change of the period average in %</i>									
Labor productivity of industry (real) ¹	10.1	4.7	3.3	3.6	3.7	5.9	5.6	5.3	-3.6
Gross average wage of industry (nominal) ¹	21.4	26.0	23.9	24.8	28.5	27.6	28.1	26.6	15.1
Unit labor cost of industry (nominal) ¹	10.3	20.4	19.9	20.5	23.9	20.5	21.3	20.2	19.4
Producer price index (PPI) of industry	12.5	14.3	21.4	13.7	20.7	25.7	26.4	30.2	4.7
Consumer price index (here: CPI)	9.8	9.1	14.1	9.0	11.5	12.9	14.8	14.9	13.8
EUR per 1 RUB, + = RUB appreciation	3.4	-2.6	-3.9	-2.4	-4.0	-5.0	-5.6	-4.0	-0.9
<i>Period average levels</i>									
Unemployment rate (ILO definition)	7.2	6.1	6.3	5.6	5.7	7.1	5.4	5.8	7.0
Employment rate	..	..	..	..	..	..	..	..	..
Key interest rate per annum (%)	11.6	10.3	10.7	10.0	10.0	10.2	10.5	10.5	11.9
RUB per 1 EUR	34.1	35.0	36.4	35.0	35.7	36.3	36.9	36.5	36.0
<i>Nominal year-on-year change of the period average stock in %</i>									
Broad money (including foreign currency deposits)	37.0	44.7	30.2	43.9	43.8	43.1	32.2	30.3	18.6
<i>Contributions to the year-on-year change of broad money in percentage points</i>									
Net foreign assets of the banking system	30.8	31.3	22.9	30.6	31.7	29.8	21.1	24.4	17.6
Domestic credit of the banking system	11.8	22.8	19.1	22.5	23.4	25.9	20.6	16.1	15.4
of which: claims on the private sector	36.4	45.6	40.7	46.2	47.6	45.3	42.3	40.3	36.2
claims on households	12.0	12.7	11.1	12.7	12.5	11.9	11.4	11.5	9.9
claims on enterprises	24.4	32.9	29.6	33.5	35.1	33.4	30.9	28.8	26.3
claims on the public sector (net)	-24.6	-22.8	-21.6	-23.7	-24.2	-19.3	-21.7	-24.2	-20.8
Other domestic assets (net) of the banking system	-5.9	-9.4	-11.8	-9.2	-11.2	-12.7	-9.6	-10.3	-14.4
<i>% of GDP</i>									
General government revenues	39.7	40.4	38.5	..	..	..	..	..	..
General government expenditures	31.3	34.4	33.7	..	..	..	..	..	..
General government balance	8.4	6.0	4.8	..	..	..	..	..	..
Primary balance	..	..	..	..	..	..	..	..	..
Gross public debt, general government	8.9	7.2	..	..	..	..	..	..	..
<i>Year-on-year change of the period total (based on EUR) in %</i>									
Merchandise exports	22.6	6.7	24.2	4.0	22.0	34.4	30.5	39.5	-1.6
Merchandise imports	28.5	24.6	22.7	27.0	19.2	23.2	23.4	29.7	15.7
<i>% of GDP (based on EUR), period total</i>									
Trade balance	14.1	10.1	10.5	8.9	10.1	13.6	11.9	11.2	6.2
Services balance	-1.4	-1.5	-1.5	-1.8	-1.4	-1.3	-1.5	-1.8	-1.4
Income balance (factor services balance)	-3.0	-2.3	-2.9	-3.4	-2.1	-1.8	-4.3	-3.1	-2.3
Current transfers	-0.2	-0.2	-0.2	-0.1	-0.3	-0.2	0.0	-0.2	-0.3
Current account balance	9.6	5.3	6.0	6.4	3.6	10.4	6.1	6.2	2.1
Capital account balance	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0
Foreign direct investment (net)	0.7	0.7	1.0	0.1	1.8	1.3	1.5	1.2	0.3
<i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i>									
Gross external debt	30.3	33.7	30.4	34.2	33.7	30.5	32.0	34.1	30.4
Gross official reserves (excluding gold)	28.5	33.8	25.6	33.0	33.8	31.9	33.7	33.9	25.6
<i>Months of imports of goods and services</i>									
Gross official reserves (excluding gold)	16.2	18.6	14.0	18.0	18.6	17.7	18.7	18.7	14.0
<i>EUR million, period total</i>									
Gross domestic product in current prices	788,356	944,298	1,144,075	254,274	271,499	244,951	276,103	319,067	303,953

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

¹ Due to breaks in the time series, data are only indicative.

Studies

European and Non-European Emerging Market Currencies: Forward Premium Puzzle and Fundamentals

Peter Backé,
Franz Schardax¹

The empirical literature has consistently rejected that the uncovered interest parity (UIP) theorem holds in practice, thus posing the well-known forward premium puzzle. In this study, we examine this issue for a sample of 18 emerging market currencies and, in addition, for a subsample of 6 currencies from emerging Europe. We first confirm earlier evidence for the existence of a forward premium puzzle for emerging market economies. We then extend the model with a view to exploring systematic relationships between excess returns from investments in foreign currency and country-specific economic fundamentals. Subsequently, we use this extended model to generate out-of-sample forecasts of currency returns. We also test for forecast accuracy, confirming that these forecasts are superior to naive forecasts. Our results show that investments based on these forecasts generate considerably higher returns than alternative investment strategies. This applies in particular to our full sample of 18 emerging market currencies. For the subsample of 6 currencies from emerging Europe, profits per trade for the model-based forecasts also outperform those generated by the other investment strategies, but by a smaller margin. These results suggest that, compared with currencies of advanced countries, the smaller bias in the forward exchange rates of emerging market currencies found in the empirical literature could relate to the better predictability of currency returns for emerging market currencies.

JEL classification: F37, G14, G15

Keywords: Forward bias, emerging market currencies, forecasting

1 Introduction

Uncovered interest rate parity (UIP) implies that international differentials in yield levels reflect expectations about exchange rate changes. However, the empirical literature (e.g. Fama, 1984) has consistently rejected that this theorem holds in practice, thus posing the well-known forward premium puzzle, which is sometimes also labeled forward bias puzzle. In fact, the empirical literature finds that, on average, high-yielding currencies tend to depreciate far less than suggested by forward premiums and might even appreciate. In the latter case, the forward discount actually points in the wrong direction, which is often found to be true for advanced economies. Thus, on empirical grounds, forward exchange rates cannot be considered to be unbiased predictors of future exchange rates. Frequently, this discrepancy between economic theory and empirical findings is ascribed to time-varying risk premiums. Other explanations that have been put forward relate to participation constraints and nominal price rigidities. However, as Sarno, Valente and Leon (2006) put it, “even with the benefit of [more than] 20 years of hindsight, the forward bias puzzle has not been convincingly explained and continues to baffle the international finance profession.”

In this study, we revisit this issue for a sample of 18 emerging market currencies and, in addition, for a subsample of 6 currencies from emerging Europe, with

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a view to exploring whether there are systematic differences between trades in these currencies and in emerging market currencies in general. In the analysis, we also test for violations of UIP by focusing on excess returns from investments in foreign currency. We extend the model to explore whether there is a systematic relationship between excess returns and country-specific economic fundamentals. We then use this extended excess return model to generate forecasts of currency returns, raising the question of whether investments based on these forecasts generate higher returns than investments in an evenly weighted basket of emerging market currencies or under a simple carry trade strategy. Finally, we relate our results to the question of possible reasons for differences in the bias in forward exchange rates.

2 Literature Survey

The first empirical studies that explored the forward premium puzzle focused on advanced economies.² Apart from finding ample empirical evidence that would reject UIP, some of these early papers – including Bilson (1981) and Fama (1984) – also examined this issue from the angle of foreign exchange excess returns and found some evidence for their predictability, which again is inconsistent with UIP. More recently, Sarno, Valente and Leon (2006) found evidence for nonlinearities in the relationship between spot and forward exchange rates. In a single exchange rate setting, they found statistically significant and persistent deviations from UIP when Sharpe ratios (the expected excess returns per unit of risk) were small, while UIP held in the context of larger Sharpe ratios. Following Lyons' (2001) limits to speculation hypothesis, they rationalized this finding by arguing that financial institutions do not have an incentive to make foreign currency investments with Sharpe ratios that are below buy-and-hold equity strategies (which in the United States had historically realized Sharpe ratios of 0.4).

Until the 1990s, data scarcity did not allow economists to examine this issue also for emerging markets. However, more recently, the increasing liberalization of foreign exchange and money markets has enabled researchers to extend the analysis of the bias of forward exchange markets to include emerging market economies.

A first seminal paper taking this approach is by Bansal and Dahlquist (2000), who compared the size of the forward bias in emerging and developed economies and found considerable cross-sectional differences in the extent of the forward bias. As investments in emerging markets are considered to be more risky, the presence of a time-varying risk premium in forward exchange rate markets should result in a larger bias for emerging markets. However, the findings of Bansal and Dahlquist (2000) suggest exactly the opposite: Forward exchange rates in emerging markets are found to be less biased than forward exchange rates in advanced economies. In fact, in the latter, the forward premium puzzle is found to be present when U.S. interest rates exceed foreign interest rates. There is no evidence, in turn, for such state dependence in emerging market economies.

Bansal and Dahlquist (2000) also show empirically that the size of the forward bias is systematically related to macroeconomic variables, such as GDP per capita,

² For a listing of the most important of these earlier papers, see Sarno, Valente and Leon (2006) and Bansal and Dahlquist (2000).

inflation levels and inflation volatility. Thus, the lower bias of the forward market in emerging currencies seems to arise from the better predictability of emerging market exchange rates.

Frankel and Poonawala's findings (2004) support this view. In this paper as well, emerging market forward exchange rates are shown to be less biased than those of developed countries. Frankel and Poonawala therefore concluded that time-varying risk premiums might not explain traditional findings of a bias. They instead ventured that emerging market currencies probably have more discernible exchange rate trends than currencies of advanced countries.

3 Dataset and Estimation Strategy

In this paper, we take the analysis of forward exchange rates in emerging markets one step further by examining whether it is possible to identify systematic factors that drive exchange rates in emerging economies and thus contribute to lower forward biases. Moreover, we investigate whether the inclusion of such systematic factors can be used to improve returns on investments in emerging market currencies.

The sample used in this study covers the period from June 1994 to February 2008 and includes 18 emerging market economies. Furthermore, we conduct a complementary analysis on a subsample of 6 countries from emerging Europe.³ Complete data coverage (all countries) is available from June 1997. The data used have a monthly frequency. For a detailed description of the data sources, see table A in the annex.

In a first stage of the empirical analysis, we apply the standard Fama (1984) test of UIP to the underlying data sample by estimating a regression of the form:

$$\Delta s_t = \alpha + \beta (f_{t-1} - s_{t-1}) + u_t \quad (1)$$

where Δs_t stands for the change in the spot exchange rate, f_{t-1} for the forward rate at time $t-1$ and u_t for the statistical disturbance term (variables in logs). We thus revisit the question of whether we find a forward bias for our sample, i.e. an estimate for β that is significantly less than 1. The presence of a forward bias would imply that this violation of UIP results in profits from investing in foreign currency.

In order to explore this question further, we reparameterize equation (1) to test for deviations from UIP by focusing on excess returns ER_t from investments in foreign currency:

$$ER_t = \alpha + (\beta - 1) (f_{t-1} - s_{t-1}) + u_t \quad (2)$$

The excess return variable consists of the combined interest rate differential and the exchange rate change that is associated with investing in a foreign currency compared with a risk-free investment in the domestic currency. Given the world-

³ The 18 countries of the full sample are Brazil, Chile, Colombia, the Czech Republic, Hungary, Indonesia, Israel, Korea, Mexico, the Philippines, Poland, Romania, Russia, South Africa, Slovakia, Taiwan, Thailand and Turkey. The 6 countries contained in the subsample are the Czech Republic, Hungary, Poland, Romania, Russia and Slovakia.

wide spectrum of the sample, we took the U.S. dollar as the domestic currency. The excess returns are calculated by using the forward exchange rate and the (nominal) spot rate (both in logs).

If UIP were to hold, the term $(\beta-1)$ would be zero and there would be no (predictable) excess returns from investments in foreign currencies. Frankel and Poonawala's (2004) findings of a β which is significantly different from 1 but larger than in developed countries suggests there might be scope for the inclusion of other systematic factors that are able to improve excess returns further. We address this issue by adding the year-on-year changes in foreign exchange reserves r , the short-term U.S. interest rate i and the CRB (Commodity Research Bureau's commodity price) index crb to equation (3). The inclusion of the CRB index is motivated by the reliance of many emerging markets on commodity exports. These variables have to be sufficiently lagged to be of use not only for explaining excess returns but also for generating forecasts. Moreover, in line with the limits to speculation hypothesis, a variable capturing the Sharpe ratio (Sh) is included in the equation, which takes the actual value of the Sharpe ratio (excess returns divided by volatility, as expressed by annualized standard deviation) if its three-month moving average is higher than 0.7, and a value of 0 in all other cases. This results in equation (3):

$$ER_t = \alpha + (\beta-1) (f_{t-1} - s_{t-1}) + \gamma r_{t-1} + \delta i_{t-1} + \mu crb_{t-1} + \phi Sh_{t-1} + u_t \quad (3)$$

(+)
(+)
(-)
(+)
(-)

We again examine whether these additional variables are correctly signed and significant.

In a next step, equation (3) is used to generate out-of-sample forecasts of excess returns for the period $t+1$ for the panel of the 18 currencies included in the sample, starting with the sample period June 1994 to June 1997. Two variants were investigated: (1) forecasts with rolling 37-month periods and (2) forecasts based on growing sample sizes as from June 1997 (i.e. observations were subsequently added across time). Variant (2) is not reported here, as variant (1) proved to be more profitable (in terms of cumulative excess returns).

If the excess return forecast for a given currency exceeds the median forecast, this currency is selected for inclusion in an equally weighted basket. As in Boothe and Glassman (1987), we calculate total profits for the model-based forecasts. We then compare the performance of this basket with the average performance of all 18 currencies as well as with the performance of a simple carry trade basket comprising the 9 highest yielding currencies. The baskets are rebalanced on a monthly basis. If the excess return forecast for a particular currency falls below the median, this currency is dropped from the basket. The same is true for the carry basket if the interest rate differential of a currency falls below the median.

In addition, since the model also provides for counting of the number of trades, it allows us to check whether the excess returns per trade are sufficient to cover the transaction costs.

Finally, we also check formally for the statistical quality of our model-based excess return forecasts by employing a series of Diebold-Mariano tests. In essence, this is a test of predictive accuracy which verifies whether the loss differential of two competing predictions is zero by using a long-run estimate of the variance of

the difference series (see Diebold and Mariano, 1995). In line with standard practice, we compare our model-based forecasts with a naïve forecast based on a simple forecasting rule, namely that the performance forecast for a given period is equal to the realized performance of the preceding period.

4 Estimation Results and Interpretation

4.1 Full Emerging Market Sample

Applying the standard Fama test of UIP to the underlying (full) data sample produces an estimate for β that is significantly smaller than 1, but greater than zero for the panel as a whole (see table 1). Thus, we find evidence of a bias in forward exchange rates of emerging market economies, albeit not a particularly large one. This finding confirms the results reported by Bansal and Dahlquist (2000) and by Frankel and Poonawala (2004).

The Fama tests for individual countries seem to be strongly influenced by the currency crises that occurred in Russia in 1998 and in Southeast Asia in 1997 and 1998 (see the coefficient estimates reported in table 2).

Table 1

Fama Test Results (Full Sample)

Variable	Coefficient	Standard error	t-statistic	Probability
Constant	-0.001715	0.001	-2.026278	0.043
$(f_{t-1} - s_{t-1})$	0.649	0.112	5.804	0.000

Source: Authors' calculations.

Note: Dependent variable: $DLOG(st)$; method: pooled least squares; sample: June 1997 to February 2008; included observations: 129; cross-sections included: 18; total pool (balanced observations): 2,322. White diagonal standard errors and covariance (d.f. corrected).

Table 2

Fama Test Results (Individual Countries)

Country	Variable	Coefficient	Standard error	t-statistic	Probability
Brazil	$(f_{t-1} - s_{t-1})$	0.125	1.055	0.118	0.906
Chile	$(f_{t-1} - s_{t-1})$	-2.648	1.642	-1.613	0.109
Colombia	$(f_{t-1} - s_{t-1})$	1.100	0.419	2.624	0.010
Czech Republic	$(f_{t-1} - s_{t-1})$	0.573	0.861	0.666	0.507
Hungary	$(f_{t-1} - s_{t-1})$	0.789	0.825	0.956	0.341
Indonesia	$(f_{t-1} - s_{t-1})$	-0.822	1.096	-0.749	0.455
Israel	$(f_{t-1} - s_{t-1})$	0.786	0.743	1.059	0.292
Korea	$(f_{t-1} - s_{t-1})$	0.470	1.333	0.353	0.725
Mexico	$(f_{t-1} - s_{t-1})$	-0.302	0.422	-0.716	0.475
Philippines	$(f_{t-1} - s_{t-1})$	1.581	0.714	2.213	0.029
Poland	$(f_{t-1} - s_{t-1})$	1.053	0.569	1.851	0.067
Romania	$(f_{t-1} - s_{t-1})$	0.573	0.114	5.045	0.000
Russia	$(f_{t-1} - s_{t-1})$	2.643	0.397	6.666	0.000
South Africa	$(f_{t-1} - s_{t-1})$	-2.802	1.350	-2.075	0.040
Slovakia	$(f_{t-1} - s_{t-1})$	0.936	0.490	1.910	0.058
Thailand	$(f_{t-1} - s_{t-1})$	1.498	0.854	1.756	0.082
Turkey	$(f_{t-1} - s_{t-1})$	0.816	0.212	3.843	0.000
Taiwan	$(f_{t-1} - s_{t-1})$	-1.361	1.078	-1.262	0.209

Source: Authors' calculations.

As a result, some of the country-specific coefficients take on rather extreme values and are thus hard to interpret. In order to achieve more robust coefficient estimates we continue the analysis in a panel setting.⁴

As to the question of whether there is a systematic relationship between the development of the spot exchange rate and (lagged) economic variables, our empirical analysis yields results in which all but one of the explanatory variables that capture economic fundamentals are correctly signed and statistically significant at the 5% level (see table 3). In particular, rising foreign exchange reserves and a higher nominal interest rate differential have a positive effect on excess returns. The only variable that does not confirm our priors is the Sharpe ratio. Based on our dataset, we thus cannot confirm that a high Sharpe ratio in the preceding months has a statistically significant negative impact on excess returns. However, as the Sharpe ratio failed only slightly to reach statistical significance (at the 10% level) after the White-correction, we kept this variable in our base regression and also in the forecast setting.

The panel estimation was specified without random or fixed effects (i.e. as a pooled least square estimation with a single constant and no cross-section effects), because for some countries the Sharpe ratio never exceeds the threshold value and is therefore set at zero, as explained in section 3. This precludes a model with random effects. We tested for the null hypothesis of redundant cross-section fixed effects, which was not rejected. We also implemented the White-test for heteroskedasticity, regressing the squared residuals of the pooled least square regression on all explanatory variables as well as squared explanatory variables. This test rejected the null hypothesis of homoskedasticity and we thus used White heteroskedasticity-consistent standard errors.

Table 3

Fundamentals and Performance (Full Sample)

Variable	Coefficient	Standard error	t-statistic	Probability
r_{t-1}	0.009	0.004	2.041	0.041
$(f_{t-1} - s_{t-1})$	0.560	0.101	5.541	0.000
Sh_{t-1}	-0.012	0.008	-1.518	0.129
i_{t-1}	-0.003	0.000	-6.155	0.000
crb_{t-1}	0.00006	0.00001	4.533	0.000
Constant	-0.006	0.004	-1.515	0.130

Source: Authors' calculations.

Note: Dependent variable: ER; method: pooled least squares; sample: June 1994 to February 2008; included observations: 165; cross-sections included: 18; total pool (unbalanced observations): 2,716. White diagonal standard errors and covariance (d.f. corrected).

It should be noted that we also tried to control for differences in growth dynamics by including industrial production as an explanatory variable. Our results (not reported in detail here) show that industrial production lagged by one period is highly significant in explaining excess returns, i.e. strong real-sector

⁴ See Hsiao (2003) for information on the usefulness of panel regressions in addition to country-specific regressions.

activity has a positive effect on returns, while industrial production with more lags does not have a significant impact on returns. However, we cannot use industrial production lagged by one period for forecasting purposes based on real-time data, given the lags in data publication. Yet, we are in a position to use foreign exchange reserves, lagged by one period, for forecasting purposes, as the publication lag for reserves is shorter and several central banks make such data available on a weekly basis.

For out-of-sample forecasts, we report rolling period forecasts (37 months) as indicated above. We also find that the estimates for the coefficients are rather unstable in different sampling periods, which would help explain why the forecasts based on the rolling 37-month samples did better than the forecasts based on growing sample sizes. More specifically, the sampling period is characterized by two rather distinct periods for currency returns: From June 1997 to December 2001, the average excess returns (for all 18 currencies) were negative, whereas between January 2002 and February 2008, they rose to a striking 10.3%. For the whole sample period of June 1997 to February 2008, the excess returns amounted to 4.86%. Nevertheless, the model appears to capture these changing dynamics quite well: The model-based forecasts are not only able to generate returns that exceed the average of all currencies, but also to outperform the carry basket. The cumulative excess returns for the forecasting period of June 1997 to February 2008 amount to 66% for all currencies, 120% for the carry basket and 210% for the model-based forecasts (see chart 1).

For the entire observation period, the carry basket produces 183 rebalancing trades, while the model generates 266 trades (i.e. for one-ninth of the portfolio in both cases). As the profits per trade for the model-based forecasts (54 basis points) are markedly higher than those for the simple carry strategy (30 basis points), introducing the trading costs would not alter the qualitative result of outperformance of the model-based strategy relative to the carry strategy. We do not include trading costs in our calculations as market participants may face different transaction costs. However, 54 basis points of profits per trade should easily suffice to

Chart 1

Cumulative Excess Returns of Different Investment Strategies (Full Sample)



Source: Authors' calculations.

Table 4

**Diebold-Mariano Test Results (Full Sample)
Forecasting period from
July 1997 to February 2008**

Country	Diebold-Mariano test statistic	p-value
Brazil	-1.902	0.059
Chile	-2.734	0.007
Colombia	-2.038	0.044
Czech Republic	-3.126	0.002
Hungary	-3.691	0.000
Indonesia	-0.946	0.346
Israel	-2.668	0.009
Korea	-1.083	0.281
Mexico	-3.448	0.001
Philippines	-2.800	0.006
Poland	-3.218	0.002
Romania	-2.047	0.043
Russia	0.030	0.976
South Africa	-3.313	0.001
Slovakia	-3.188	0.002
Thailand	-2.345	0.021
Turkey	-2.540	0.012
Taiwan	-1.769	0.079

Source: Authors' calculations.

Note: To reject the null hypothesis of equal predictive accuracy at the 5% level, the absolute value of the D-M test statistic has to be larger than 1.96. The test was conducted against a naïve forecasting rule (performance forecast for $t+1$ = realized performance at time t).

cover such costs; Lyons (2001) estimates the trading costs for major world currencies at 10 basis points. Major world currencies are generally more liquid than emerging market currencies, but the liquidity of foreign exchange markets has risen since 2001.

As to the Diebold-Mariano tests, the null hypothesis of equal accuracy is rejected in most cases at the 5% significance level. Thus, the results of these tests confirm the superior accuracy of the model-based forecasts compared with naïve forecasts for most country cases (see table 4).

The investment strategy with the standard investment rule (“long only”) provides higher returns than the strategy with the modified investment decision rule (“short/long”). As there are positive excess returns for the basket of all 18 countries, funding in emerging market currencies is more expensive

than funding in U.S. dollars (which is implicitly assumed in the “long only” strategy). This explains the better performance of the “long only” strategy.

These results lend support to the idea that the smaller bias in forward exchange rates of emerging market currencies compared with currencies of advanced countries could relate to the better predictability of currency returns for emerging market currencies.

4.2 European Emerging Market Currency Subsample

Repeating our estimation procedure for the subsample of 6 currencies from emerging European economies yields the following results. In terms of the interaction between exchange rates and economic fundamentals, the empirical results for the subsample are similar to those for the full sample. Again, all explanatory variables are correctly signed. Moreover, all but one variable are statistically significant (again, the Sharpe ratio is not statistically significant). Compared with the full sample, the coefficient estimates in the emerging Europe subsample for foreign exchange reserves, the interest rate differential and commodity prices are larger and thus economically more significant than in the full sample.

In line with the above-mentioned forecasting strategy, we employ rolling 37-month periods for the out-of-sample forecasts. As in the case of the full sample, the model-based forecasts for the subsample generate returns that exceed the average of all currencies, but also outperform the carry basket. The cumulative excess returns for the forecasting period amount to 120% for all currencies and

Table 5

Fundamentals and Performance (Subsample)

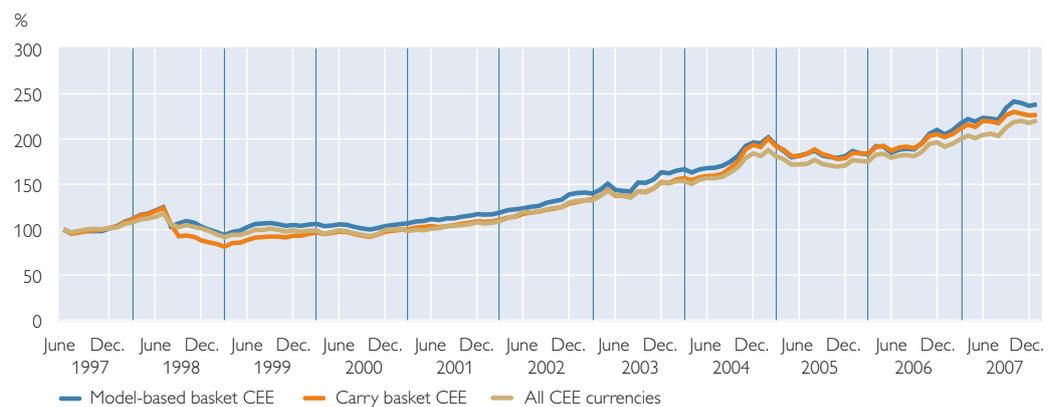
Variable	Coefficient	Standard error	t-statistic	Probability
r_{t-1}	0.011	0.005	2.076	0.038
$(f_{t-1} - s_{t-1})$	0.625	0.167	3.749	0.000
Sh_{t-1}	-0.014	0.010	-1.417	0.157
i_{t-1}	-0.003	0.001	-4.342	0.000
crb_{t-1}	0.00008	0.00002	3.701	0.000
Constant	-0.010	0.007	-1.568	0.117

Source: Authors' calculations.

Note: Dependent variable: ER_t ; method: pooled least squares; sample: June 1994 to February 2008; included observations: 165; cross-sections included: 6; total pool (unbalanced observations): 886. White diagonal standard errors and covariance (d.f. corrected).

Chart 2

Cumulative Excess Returns of Different Investment Strategies (Subsample)



Source: Authors' calculations.

Table 6

**Diebold-Mariano Test Results (Subsample)
Forecasting period from
July 1997 to February 2008**

Country	Diebold-Mariano test statistic	p-value
Czech Republic	-3.378	0.001
Hungary	-3.459	0.001
Poland	-3.495	0.001
Romania	-2.587	0.011
Russia	-0.028	0.978
Slovakia	-3.330	0.001

Source: Authors' calculations.

Note: To reject the null hypothesis of equal predictive accuracy at the 5% level, the absolute value of the D-M test statistic has to be larger than 1.96.

to 126% for the carry basket, while they reach 138% for the model-based forecasts (see chart 2).

Compared with the full sample, for the emerging Europe subsample the number of trades generated by the model falls to 117. The profits per trade for the model-based forecasts are lower for the subsample (15 basis points) than in the case of the full sample (54 basis points). At the same time, the profits per trade for the model-based forecasts turn out to be higher than those for the simple carry strategy (7 basis points), but are rather small in absolute terms and thus provide a relatively small cushion to cover the trading costs.

For the emerging Europe subsample, too, the results of the Diebold-Mariano tests confirm the superiority of the model-based forecasts compared with a naïve forecast for all countries but Russia (see table 6).

5 Summary and Conclusions

In this paper, we revisited the forward bias puzzle for a sample of 18 emerging market economies for the period of June 1994 to February 2008. Using the standard Fama (1984) test of uncovered interest rate parity, we first confirm the findings of previous empirical papers showing evidence for the existence of a forward bias puzzle for emerging market economies. We then extend the model with a view to exploring systematic relationships between excess returns from investments in foreign currency and country-specific economic fundamentals. Subsequently, we use this extended model to generate out-of-sample forecasts of currency returns. We also test for forecast accuracy, confirming that these forecasts are superior to naïve forecasts.

Our results show that investments based on these forecasts generate considerably higher returns than investments in an evenly weighted basket of emerging market currencies and they also outperform the returns resulting from a simple carry trade strategy. This holds both for the full sample of 18 emerging market currencies and for a subsample representing 6 currencies from emerging Europe. The cumulative excess returns for the forecasting period (June 1997 to February 2008) amount to 66% for the evenly weighted basket, 120% for the carry basket and 210% for the model-based forecasts. For the subsample, the model-based forecasts yield cumulative excess returns of 138%, compared with 120% for all currencies and 126% for the carry basket.

Among other things, these results suggest that the smaller bias in forward exchange rates of emerging market currencies compared with currencies of advanced countries found in the empirical literature on the forward bias puzzle could relate to the better predictability of currency returns for emerging market currencies in general and, more specifically, for the currencies of emerging European countries.

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Annex

Table A

Data Sources

Variable	Explanation	Source
r	Gross official reserves minus gold in USD million, year on year	Datastream
$f_{t-1} - s_{t-1}$	Log 1-month forward rate – log spot rate (forward rate calculated from interest rate differential)	Authors' calculations based on Bloomberg (exchange rates, 1-month interest rates CZ, HU, ID, IS, PH, PL, TK, TW), Datastream (1-month interest rates BR, CO, CL, KO, MX, RO, RU, SA, SK, TH)
Sh_{t-1}	Sharpe ratio	Authors' calculations based on Bloomberg (exchange rates, 1-month interest rates CZ, HU, ID, IS, PH, PL, TK, TW), Datastream (1-month interest rates BR, CO, CL, KO, MX, RO, RU, SA, SK, TH)
i_{t-1}	U.S. 1-month interbank rate	Bloomberg
crb_{t-1}	CRB commodity index	Bloomberg
ER_t	Excess returns	Authors' calculations based on Bloomberg (exchange rates, 1-month interest rates CZ, HU, ID, IS, PH, PL, TK, TW), Datastream (1-month interest rates BR, CO, CL, KO, MX, RO, RU, SA, SK, TH)

The 2008 Fall Wave of the OeNB Euro Survey – A First Glimpse of Households’ Reactions to the Global Financial Crisis

Sandra Dvorsky,
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This article presents selected results of the third wave of the OeNB Euro Survey, which was conducted in Central, Eastern and Southeastern Europe (CESEE) in October/November 2008, i.e. at a time when the global financial crisis had arrived in Europe. Therefore, this article focuses on first evidence of households’ reactions to the crisis by comparing the most recent results with those of the preceding survey wave of May/June 2008. Although people’s general assessment of the economic situation and their trust in banks have both deteriorated substantially, according to our results, this has not (yet) changed people’s behavioral patterns in terms of their foreign currency holdings. In particular, the dissemination of euro cash holdings and euro-denominated savings deposits remained stable relative to earlier waves of the OeNB Euro Survey.

JEL classification: E41, E50, D14

Keywords: Euroization, global financial crisis, economic sentiment, survey data, CEE, SEE

1 Introduction

This article presents selected results of the third wave of the OeNB Euro Survey, which was conducted in Central, Eastern and Southeastern Europe (CESEE) in October/November 2008. The survey period coincided with the time when the global financial crisis arrived in Europe. Therefore, this article focuses on first evidence of households’ reactions to the crisis by comparing the most recent results with those of the preceding survey wave of May/June 2008. Although the general sentiment of the people has deteriorated substantially, according to our results, this has not (yet) changed people’s behavioral patterns in terms of their foreign currency holdings.

The article is structured as follows. Section 2 recalls the main features of the OeNB Euro Survey. Section 3 presents the respondents’ assessment of the present and future economic situation as well as results on interviewees’ confidence in their local currencies and in the euro and on their trust in the local banking sector. Section 4 examines whether the global financial crisis had already led to a change in foreign currency cash (FCC) holdings or foreign currency deposits (FCDs) by households. Section 5 summarizes the survey results.

2 The OeNB Euro Survey – Main Features

As in previous survey waves, the geographical scope of the survey comprised 11 countries,² namely six EU Member States (Bulgaria, the Czech Republic, Hungary, Poland, Slovakia and Romania) and five EU candidate and potential candidate countries³ (Albania, Bosnia and Herzegovina, Croatia, FYR Macedonia⁴

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² The OeNB had already started to conduct a regular survey on several aspects of euroization in five countries in 1997, the scope of which was extended to 11 countries as of fall 2007.

³ The survey does not cover Montenegro and Kosovo, which have both unilaterally introduced the euro.

⁴ “FYR Macedonia” refers to the former Yugoslav Republic of Macedonia.

and Serbia). In fall 2008, Slovakia was covered by the OeNB Euro Survey for the last time; it will thus not be included in the country sample as of 2009. The fall wave survey comprised face-to-face interviews with about 1,000 persons per country aged 15+. The sample was selected via a multi-stage stratified random sample procedure, with the exception of Bulgaria, where quota sampling was applied. Results are representative of the respective population structure in all countries but Poland, where only the population of the ten largest cities was sampled (for further details, see <http://ceec.oenb.at>).

The OeNB Euro Survey is conducted at half-year intervals. The first wave had been carried out in October/November 2007 and the second wave followed in May/June 2008. The third wave was incidentally conducted at the time of the first peak of the global financial crisis in the region. However, it was not conducted at the same time in each of the surveyed countries. Therefore, when interpreting some survey results, it may be helpful to bear in mind the exact timing of the interview period in order to fully understand respondents' behavior (see table A in the annex).

3 Economic Sentiment

Since the 2007 relaunch of the OeNB Euro Survey the questionnaire has been containing a set of questions on general economic sentiment. Given the timing of the 2008 fall wave, we expect the results to provide very interesting insights into interviewees' perceptions of the economic situation against the background of the arrival of the global financial crisis in the region. Furthermore, the survey results are likely to present first evidence of cross-country differences in how the crisis is perceived in the respective countries.

3.1 Economic Confidence Weakens

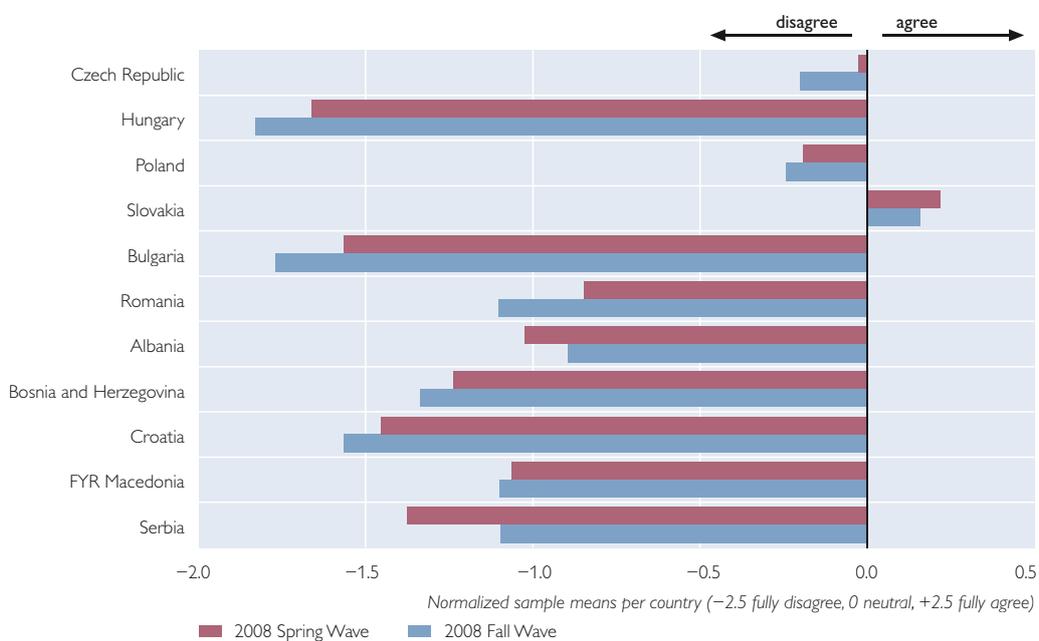
Not surprisingly, respondents' assessment of the economic situation in the fall of 2008 had deteriorated in comparison with the 2008 spring wave, even though the changes are not always significant (see chart 1). In general, pessimism continued to be the dominant sentiment. In Hungary and Bulgaria, the pessimistic sentiment was particularly pronounced relative to the regional average, which had already been found to be the case in the preceding two survey waves. In both countries, this general sentiment largely corresponds with macroeconomic performance, which had fallen short of the regional average in several aspects (see Dvorsky, Scheiber and Stix, 2008b). A remarkable exception in this context is Slovakia, where respondents' economic assessment was on average positive. This finding was undoubtedly influenced by the then upcoming introduction of the euro.

3.2 Assessment of Economic Prospects also Worsened

It is worth noting that respondents are, in general, less pessimistic in their expectations for the future economic situation than in their assessment of the current situation. Nevertheless, we observe that respondents' assessment of the future economic situation worsened significantly in Hungary, Bulgaria, Romania and Serbia compared with the previous survey wave (see chart 2).

Chart 1

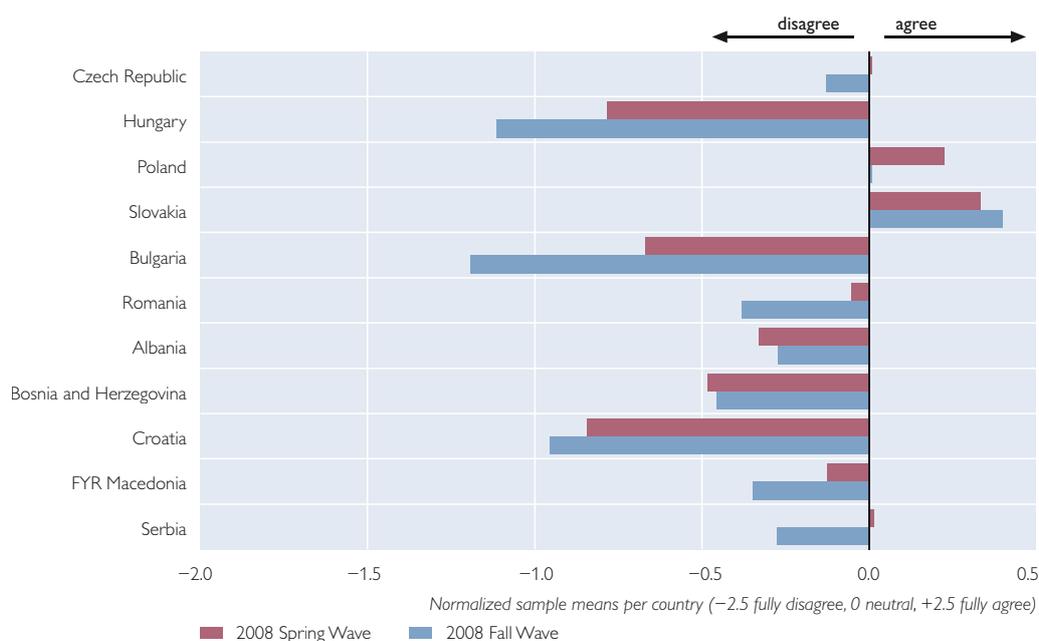
Response to "Currently, the Economic Situation Is Very Good"



Source: OeNB Euro Survey 2008 Spring Wave and 2008 Fall Wave.

Chart 2

Response to "Over the Next Five Years, the Economic Situation Will Improve"



Source: OeNB Euro Survey 2008 Spring Wave and 2008 Fall Wave.

3.3 Confidence in both Local Currencies and Euro Declines

In most countries analyzed, interviewees' confidence in the local currency seems to have declined compared with the previous survey wave. On average, respondents disagreed with the statement that their local currency was very stable and trustworthy (see chart 3). Again, answers in Hungary and Bulgaria were found to be particularly negative. To some extent, country averages might reflect differences across countries which are genuine and not explainable by economic factors. In this regard, it is worthwhile to focus on changes over time. Nevertheless, even when bearing this qualification in mind, we consider the result for Bulgaria remarkable given that Bulgaria has successfully been operating a currency board arrangement. A marked loss of confidence in the local currency was reported in the Romanian survey results. By contrast, the results for FYR Macedonia and Bosnia and Herzegovina are surprisingly positive, which reflects widespread optimism following the countries' strong economic performance in recent years that had not yet abated when the fall wave was conducted (Pöschl, 2008).

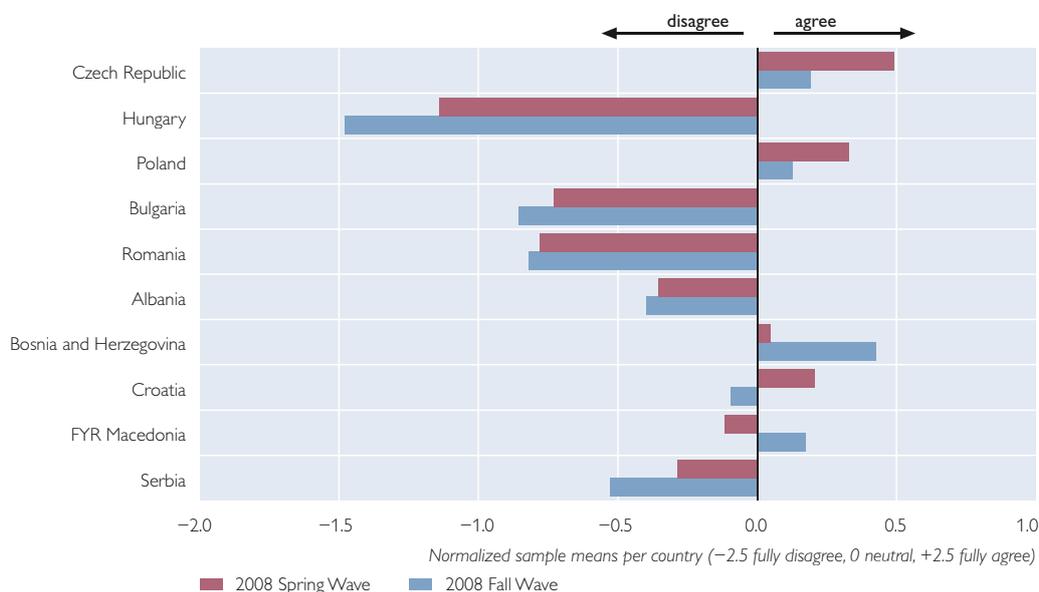
It is worth noting in this context that the questionnaire also explores people's expectations about exchange rate developments over a five-year horizon. Here, the picture that emerges from the 2008 fall wave has remained virtually unchanged from six months earlier (see Dvorsky, Scheiber and Stix, 2008b). In most countries, the share of respondents agreeing with the statement that the "local currency will lose value against the euro over the next five years" remained at around 40% to 65% of all interviewees. Hungarian respondents remained by far the most pessimistic in the region, with still over 80% expecting a depreciation of the exchange rate. On the other end of the spectrum, more than 75% of the Czech⁵ and 60% of the Macedonian interviewees said that their local currency would "stay the same" or even "gain value" vis-à-vis the euro. The currency board arrangement in Bosnia and Herzegovina obviously enjoys a high degree of support, with 75% of respondents expecting the exchange rate to "stay the same."

The euro, by contrast, continued to be perceived as a stable and trustworthy currency in all countries analyzed. However, it seems that the global financial crisis did not leave people's confidence in the euro totally unaffected. Consequently, during the 2008 fall wave, the statement that the euro is a stable and trustworthy currency found less support from respondents than six months earlier (see chart 4). Statistically significant changes were found for Hungary, Poland, Romania, Albania, Croatia and Serbia. However, this may be attributed not only to diminishing trust in the euro per se, but also to a general loss of confidence in the financial sector.

⁵ The survey results from the Czech Republic are remarkable insofar as the exchange rate of the Czech koruna started to depreciate vis-à-vis the euro as of September 2008, which obviously had not yet fed into people's exchange rate expectations.

Chart 3

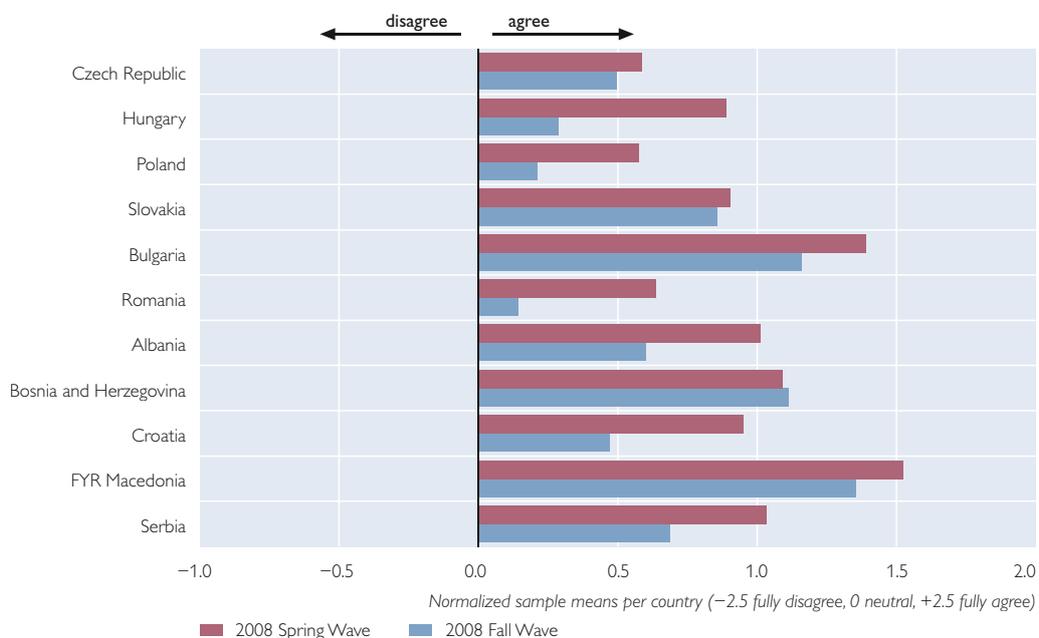
Response to "Currently, the Local Currency Is Very Stable and Trustworthy"



Source: OeNB Euro Survey 2008 Spring Wave and 2008 Fall Wave.

Chart 4

Response to "The Euro Is a Very Stable and Trustworthy Currency"



Source: OeNB Euro Survey 2008 Spring Wave and 2008 Fall Wave.

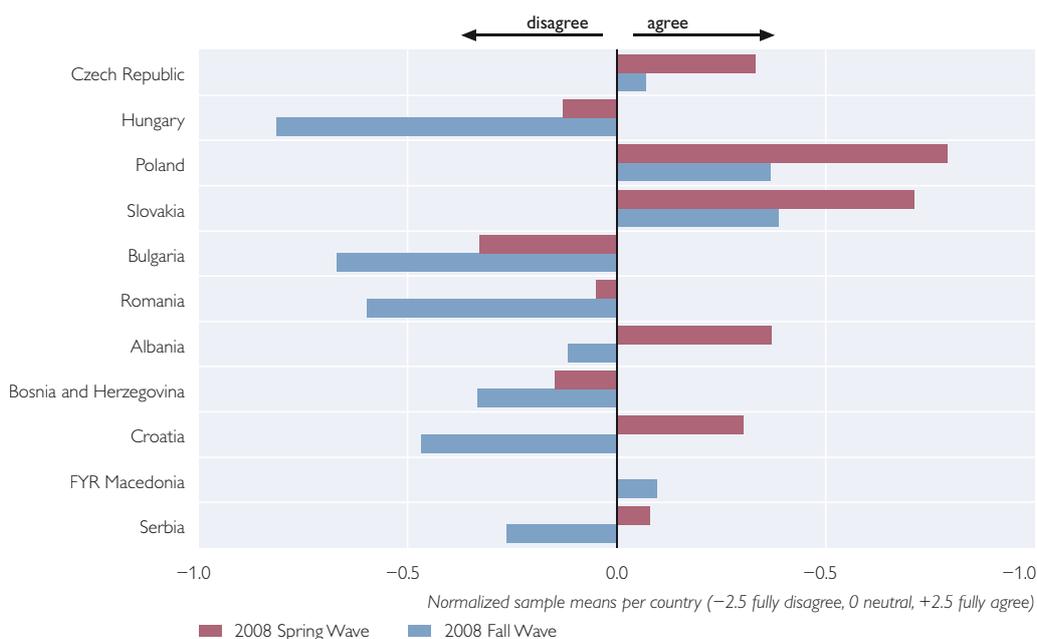
3.4 Trust in Banks Declines in Most Countries

The global financial crisis also manifests itself in a statistically significant erosion of trust in the banking system in CESEE countries – except for FYR Macedonia. For Croatia and Albania, we observe, on average, a relatively strong shift from a positive to a negative assessment of the domestic banking system. In the same vein, the response in Hungary and Romania indicates a relatively sharp decline of trust in banks (see chart 5).

People's trust in the banking system was most likely influenced by the arrival of the global financial crisis in the region and by the respective governments' policy responses in the fall of 2008. Therefore, in order to better understand interviewees' answers, we compared the exact dates of deposit guarantee scheme announcements in the respective countries with the interview schedule of the 2008 fall wave of the OeNB Euro Survey.⁶

Chart 5

Response to "Currently, Depositing Money at Banks Is Very Safe"



Source: OeNB Euro Survey 2008 Spring Wave and 2008 Fall Wave.

⁶ In particular, in three countries survey interviews were conducted before and after deposit guarantee schemes were announced or raised by the respective governments, namely in Croatia (announcement: October 12, 2008; interview period: October 4 to 24, 2008), in Hungary (announcement: October 13, 2008; interview period: October 4 to 20, 2008) and in Bulgaria (announcement: October 15, 2008; interview period: October 13 to 31, 2008). Econometric breakpoint analysis did not, however, reveal significant differences in the results.

4 Degree of Euroization – First Evidence from the Global Financial Crisis?

In light of the discussed darkening of economic sentiment, the question arises whether recent developments have had an impact on the degree of euroization.

From the literature on euroization one would expect that households change the composition of their portfolios in order to safeguard the value of their savings. Here, they have two options at hand, which are linked to opportunity costs and trust in institutions. They may decide on (1) whether to hold financial assets in domestic or foreign currency and on (2) whether to hold cash or to commit money to a bank.

Furthermore, at the current juncture, a substantial depreciation of the domestic currency increases the opportunity cost of holding domestic money. The influence of depreciation on euroization depends on the size of the depreciation and its expected duration.⁷

Given the historical background of dollarization during the transition recessions in some of the countries sampled, the willingness to switch to foreign currency/ the euro may be even greater because of established positive network externalities in the use of the foreign currency. In some countries in Southeastern Europe (SEE), it is, for instance, rather common to use euro cash to buy an apartment or a car or to pay the rent. Hence, some people already think in euro when making certain purchases. Moreover, the psychological barrier to switching is supposed to be lower nowadays. Stix (2008) shows that past experience is a key determinant for the use of foreign currency even though macroeconomic stabilization has wiped out many previous reasons for using a foreign currency. Amid the current crisis, former patterns of behavior could be reactivated, which might lead to a reshuffling of portfolios.

In the following, we want to take a closer look at the dissemination of euro cash holdings and euro deposits and at the amounts held (i.e. extensive and intensive margins) in order to determine whether the global financial crisis has already induced any shifts in household portfolios.

4.1 Euro Cash Holdings Remain Virtually Unchanged

According to chart 6, the national shares of respondents holding euro cash remained stable compared with the average percentage shares of the 2008 spring and 2007 fall waves.⁸ Hence, the dissemination of euro cash holdings in CESEE remained unaffected in the early days following the arrival of the global financial crisis in the region.

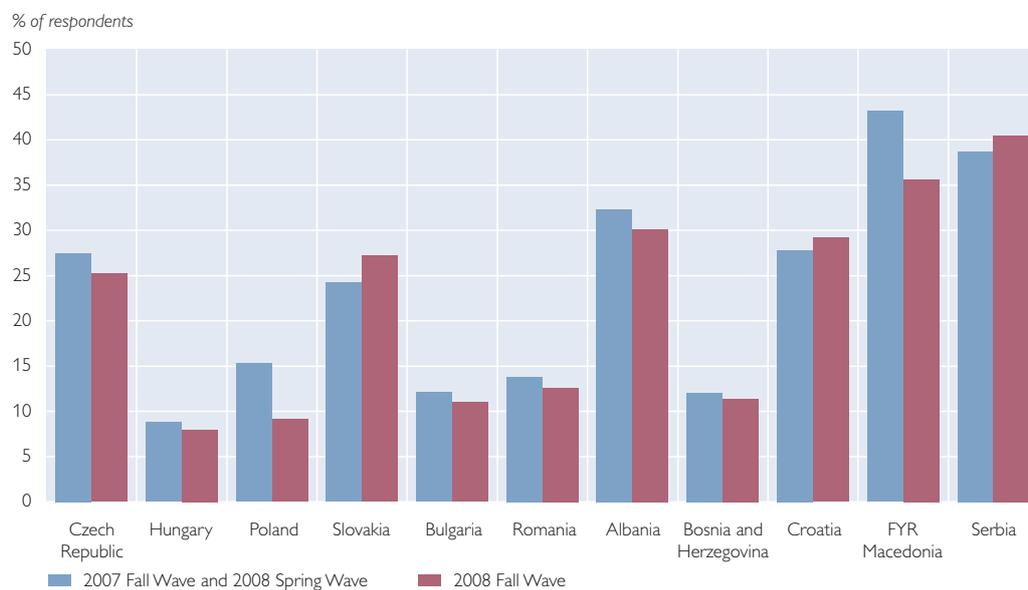
Furthermore, the intensive margin of euro cash holdings stayed the same (see chart 7). We did not find statistically significant changes in the median amount of euro cash holdings except for Croatia. There, the median amount of euro cash had soared from EUR 470 in fall 2007 to EUR 870 in spring 2008 and attained a level of EUR 920 in fall 2008, which was the highest in the region at the time. One explanation for this temporal pattern could be that residents had sold a substantial share of their stocks already in spring 2008 and may have converted a sizeable share of those revenues into euro cash.

⁷ Another important factor explaining euroization dynamics is inflation (and interest rate differentials), but this is not considered to be the main determinant at the current juncture.

⁸ Though the decline in the dissemination of euro cash for Poland and FYR Macedonia turns out to be statistically significant at the 1% level, we do not have a reasonable economic interpretation at hand.

Chart 6

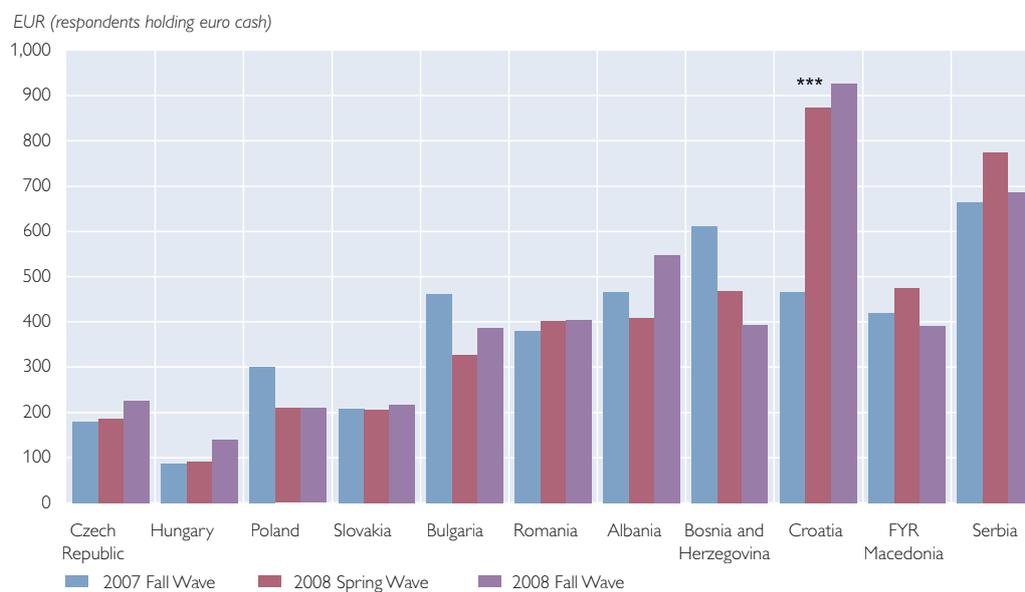
Euro Cash Holdings as in Fall 2008



Source: OeNB Euro Survey 2007 Fall Wave, 2008 Spring Wave and 2008 Fall Wave.

Chart 7

Median Euro Cash Holdings as in Fall 2008



Source: OeNB Euro Survey 2007 Fall Wave, 2008 Spring Wave and 2008 Fall Wave.

Note: *** indicates a statistically significant change at the 1% level.

4.2 Savings Deposits Somewhat Lower, Currency Composition Almost Unaffected

Although trust in banks has deteriorated, results from the OeNB Euro Survey show that the dissemination of savings deposits did not change significantly, neither for local currency deposits nor for foreign currency deposits (FCDs). The low number of observations in some countries clearly limits a reasonable application of methods of statistical inference. Nevertheless, we found a statistically significant increase of euro-denominated FCDs in Slovakia, which ties in perfectly with the proposition that some Slovaks thus anticipated the upcoming adoption of the euro.

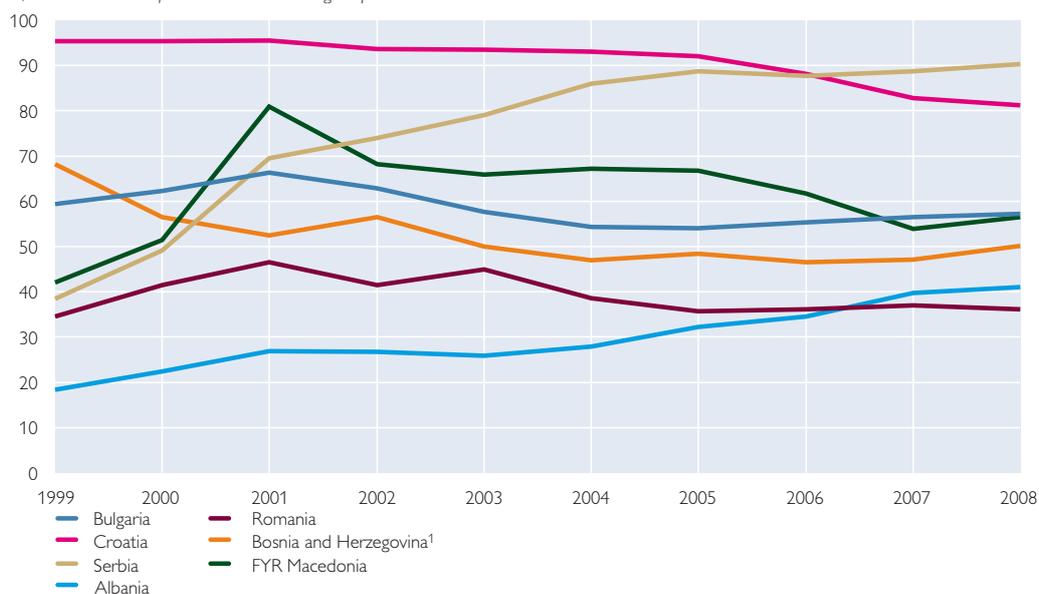
Another measure of the degree of deposit substitution is the relative share of FCDs in households' total deposits (see chart 8). The monetary statistics published by the national central banks do not evidence a change of major trends up until the cutoff date of January 2009. Since the global financial crisis arrived in the region only in the fourth quarter of 2008 and the private sector tends to react somewhat sluggishly and only gradually, we did not expect volatile movements. Nonetheless, the downward trend of deposit substitution seems to have decelerated slightly within the last quarter of 2008, while time series with an upward trend seemed to have picked up somewhat recently.

Focusing on the foreign currency share of savings deposits does not give the full picture, though. When we analyze data at a monthly frequency, we find persistent withdrawals of savings deposits (in both local and foreign currency) in four countries of SEE. In October 2008, the stock of household savings deposits declined by 5% in Croatia, by 6% in Serbia and by 12% in Bosnia and Herzegovina.

Chart 8

Degree of Deposit Substitution in SEE

% FCDs as a share of households' total savings deposits



Source: National central banks.

¹ Entries for Bosnia and Herzegovina comprise savings deposits of households and the corporate sector.

In Albania, households withdrew 3% of their savings deposits in November 2008. We presume that households withdrew money in the currency in which their savings deposits were denominated.

After November 2008, savings deposits stabilized again, but at a lower level, which suggests that governments' announcements of state guarantees for savings deposits were effective and succeeded in restoring trust in the local banking systems.

5 Summary and Outlook

The 2008 fall wave of the OeNB Euro Survey conducted in October and November 2008 coincided with the first peak of the global financial crisis and its arrival in the CESEE countries analyzed.

Not surprisingly, respondents' assessment of the economic situation in fall 2008 had deteriorated in comparison with the 2008 spring wave. Furthermore, the global financial crisis also manifested itself in a statistically significant erosion of trust in banks. However, the impact on the structure of households' financial assets in CESEE was rather limited at the time the survey was conducted. In particular, the dissemination of euro cash holdings and foreign currency deposits remained stable relative to earlier waves of the OeNB Euro Survey, which implies that the currency composition remained broadly the same in all the countries surveyed.

The fact that no significant changes became evident does not imply, however, that people are not wary of the impact of the crisis. Given people's great sensitivity toward financial turmoil (exchange rate movements, loss in confidence), the emergence of an acute crisis situation could lead to a reshuffling of portfolios. As a case in point, data from aggregate monetary statistics indicate that savings deposits declined in October and November 2008 in four countries.

Against this background, it remains a key policy challenge – both in the euro area and the CESEE countries – to sustain overall trust in the banking system. The 2009 spring wave of the OeNB Euro Survey will be conducted in May/June 2009 and will focus on the influence of the global financial crisis on households' behavioral patterns.

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Annex

Table A

2008 Fall Wave Schedule

Albania	November 3–10, 2008
Bosnia and Herzegovina	November 2–16, 2008
Bulgaria	October 13–31, 2008
Croatia	October 4–24, 2008
Czech Republic	October 15–27, 2008
FYR Macedonia	November 6–12, 2008
Hungary	October 4–20, 2008
Poland	October 8–13, 2008
Romania	October 27 to November 4, 2008
Serbia	October 9–13, 2008
Slovakia	October 15–26, 2008

Source: OeNB.

Fiscal Position and Size of Automatic Stabilizers in the CESEE EU Member States – Implications for Discretionary Measures¹

Markus Eller²

In the EU Member States in Central, Eastern and Southeastern Europe (CESEE-10), budgetary positions have been observed to react less strongly to GDP changes than in the euro area. In the observation period, automatic stabilizers mostly operated on the revenue side, while the response of government expenditure to GDP changes was quite inelastic. In most CESEE-10 countries, the government expenditure-to-GDP ratio is smaller than the euro area average. Thus, the automatic response of the budget balance to the present downturn is expected to be rather moderate. Moreover, the room for discretionary fiscal measures is limited as there are no sufficient buffers owing to the predominantly procyclical fiscal stance during past “boom times” in several countries and, currently, government debt markets in many countries are rather illiquid.

JEL classification: E62, H6

Keywords: Automatic stabilizers, fiscal space, output gap, cyclical policy, discretionary fiscal policy

1 Introduction

At the current juncture, recessionary tendencies as a consequence of the global financial crisis pose demanding challenges for an appropriate fiscal policy reaction in Central, Eastern and Southeastern Europe (CESEE). On the one hand, fiscal prudence and sustainability are key issues when it comes to keeping the trust of international investors and guaranteeing the availability of external financing. On the other hand, the risk of a recessionary downward spiral pushes the case for discretionary fiscal policy measures that go beyond the built-in countercyclical response of tax and government spending systems to a drop in GDP. Against this background, this short contribution first elaborates to what extent discretionary measures are needed in the EU Member States in Central, Eastern and Southeastern Europe (CESEE-10) given the (pre-crisis) size of automatic stabilizers and, second, delineates the cyclical pattern of discretionary fiscal policy observed over the past few years and outlines current fiscal positions to improve our understanding of the room for fiscal policy maneuver in these countries.

2 Comparison of Automatic Stabilizers in the CESEE-10 and the Euro Area

During an economic downturn, the structure of tax and public spending systems automatically stabilizes the business cycle in at least three ways. First, sizeable tax bases (such as income, profits or consumption expenditure) erode and thus the overall tax burden decreases. Second, the public expenditure category with the most pronounced countercyclical pattern – unemployment benefits – increases as the number of unemployed goes up. Third, many expenditure categories improve

¹ Cutoff date for data: April 16, 2009.

² Oesterreichische Nationalbank, Foreign Research Division, markus.eller@oenb.at. The author would like to thank Peter Backé, Catherine Keppel and Zoltan Walko (all Foreign Research Division) and Lukas Reiss (Economic Analysis Division) for valuable comments as well as Salvador Barrios and Andrea Schaechter (both European Commission, Directorate General for Economic and Financial Affairs) for providing updated figures on budgetary elasticities and answering a number of questions in March 2009.

the stabilizing effects of fiscal policy as they show a certain inertia in adjusting to business cycle fluctuations. For example, a temporary output decline does not induce lay-offs of public sector employees, a stop of public infrastructure projects or the closing of schools and hospitals. Accordingly, Deroose, Larch and Schaechter (2008) argue that “it is predominantly the differences in size of governments that impact how strong automatic stabilizers are.” Consequently, this section presents (1) estimates on both public revenue and expenditure elasticities and (2) cross-country figures on public expenditure-to-GDP ratios (as a frequently used proxy for government size).

2.1 Budgetary Elasticities and Sensitivities

For the implementation of the EU’s fiscal surveillance framework, the European Commission estimates the budgetary elasticities of the EU Member States on a regular basis (see European Commission, 2004). Chart 1 shows the updated budgetary elasticities of the CESEE-10 and the euro area.

The data show that a 1% drop in GDP reduces total government revenues by nearly 1%. As a consequence, the revenue-to-GDP ratio remains almost constant over the business cycle, pointing to a largely proportional tax system (Deroose, Larch and Schaechter, 2008) in the euro area and in most of the CESEE-10 countries. On average, the elasticity of government revenues in the CESEE-10 is only slightly smaller (by about one decimal point) than in the euro area. The response of government expenditure to changes in GDP proves to be rather inelastic. A 1% decline in GDP drives up government spending by 0.10% in the CESEE-10 and by 0.17% in the euro area. Notably, Poland and Slovenia show by far the highest expenditure elasticities of the CESEE-10 at 0.17 and 0.13, respectively.

Overall, budgetary positions react less strongly to GDP changes in the CESEE-10 than in the euro area. A cyclical drop in GDP by 1%, *ceteris paribus*, increases the fiscal deficit-to-GDP ratio by 0.37 percentage points on average in the CESEE-10 (ranging from a 0.27 percentage point change in Lithuania to a 0.47 percentage point change in Slovenia), compared with an increase by half a percentage point in the euro area.

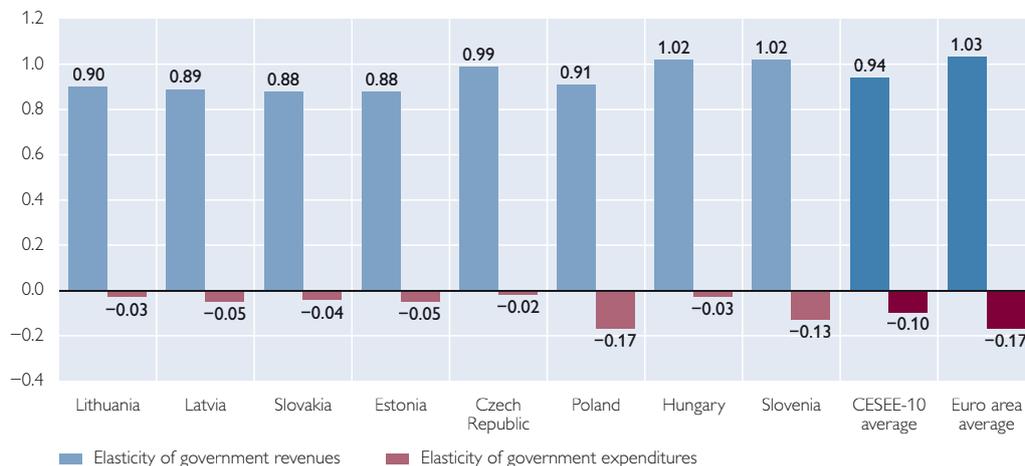
A few caveats have to be taken into account when interpreting these numbers at the current juncture. First, the European Commission’s calculation of expenditure elasticities is based exclusively on unemployment benefits. These, however, account for only a small share in total primary expenditure (about 3.5% in the euro area). Other potentially business cycle-dependent categories, such as health or pension expenditure, have so far not been included in the European Commission’s calculations, and the presented expenditure elasticities are therefore likely to be underestimated. Second, the effective automatic response of budgetary items to a 1% decline in GDP strongly depends on the composition of this decline. In the case of progressive income taxation and proportional profit taxation, for instance, the fiscal deficit ratio is expected to be much more sensitive to a decrease in wages than to a decrease in profits.

Chart 1

Size of Automatic Stabilizers

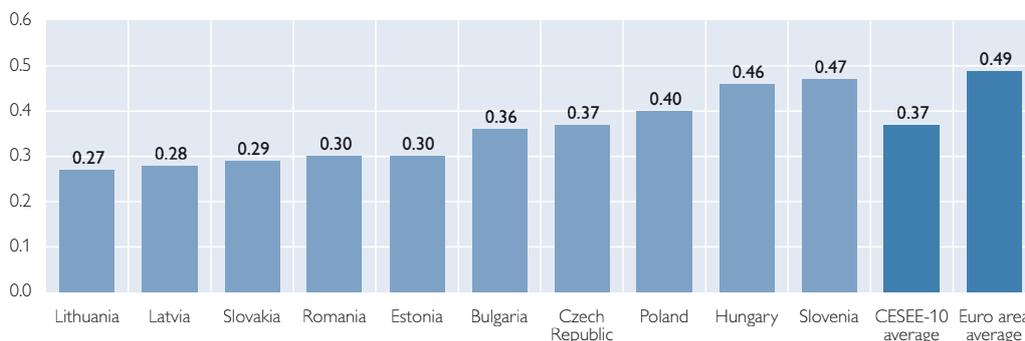
Budgetary Elasticities

Percentage point change in response to a 1% increase in GDP



Overall Budgetary Sensitivity

Percentage point change in response to a 1% increase in GDP



Source: European Commission (DG ECFIN).

Note: In response to a percentage change of the potential output gap, budgetary elasticities represent the percentage change in the level of general government expenditures or revenues, while the overall budgetary sensitivity represents the percentage change of the general government balance-to-GDP ratio. The presented numbers are based on multiannual averages for the period from 1995 to 2004 (more recent data are not yet included in the European Commission's calculations). For Bulgaria and Romania, estimations are available only for overall budgetary sensitivity. Cross-country averages are GDP-weighted.

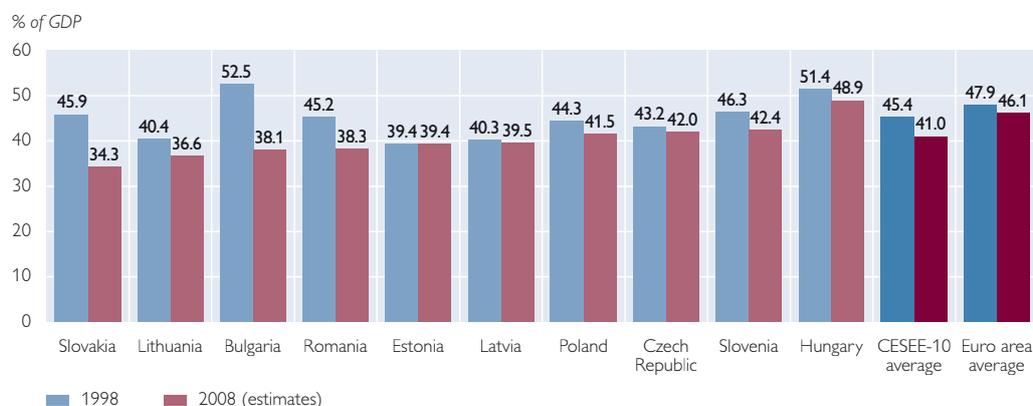
2.2 Government Expenditure-to-GDP Ratio and Structure of Public Expenditure

Chart 2 indicates that in 2008 in most CESEE-10 countries (except Hungary) the government expenditure-to-GDP ratio was smaller (mostly around or below 40%) than the euro area average (about 46%; Austria's share comes to nearly 50%). This restricts the buffers for automatic stabilization and, as a consequence, the public sector's capacity to dampen short-run business cycle fluctuations. But it should be noted that in most CESEE-10 countries the government expenditure-to-GDP ratio is larger than in other emerging economies with a similar level of development.

It should be acknowledged that – driven by the ongoing catching-up process – the CESEE-10 spend more, on average, on (“crisis-resistant”) infrastructure proj-

Chart 2

General Government Expenditure



Source: European Commission, AMECO database.

Note: Cross-country averages are GDP-weighted. 2008 data are estimates as at end-October 2008.

ects than the euro area. The Czech Republic e.g. assigns an average of about 10% of GDP to infrastructure spending, while the corresponding figure for Austria comes to no more than 6%. (For education or health expenditure or the compensation of public sector employees, such a significant difference cannot be observed.)

3 Fiscal Space

The governments in the CESEE-10 exhibit a comparatively low degree of indebtedness. On average, gross public debt as a percentage of GDP is only half as high in the CESEE-10 as in the euro area. In 2008, the debt ratios stood clearly below 20% in Bulgaria, Romania and the Baltic countries, below 30% in Slovenia, Slovakia and the Czech Republic and at 45% in Poland. Only Hungary's debt ratio of 72% surpassed the euro area average of 68% (European Commission, Interim Forecast, January 2009).

Moreover, headline fiscal positions in most of the CESEE-10 countries have improved since 2002 or 2003, respectively. Despite considerable economic growth during this period, however, most of the CESEE-10 countries (with the exception of Bulgaria and the Baltic countries) have run budget deficits of only slightly below 3% of GDP; Hungary even reached a deficit of 9.3% of GDP in 2006 before reducing the shortfall to an estimated 3.4% in 2008.

Table 1 shows the change in the cyclically adjusted primary balance (CAPB) as a percentage of GDP and differentiates between boom, neutral, and downturn stages of the business cycle (i.e. years with clearly positive, moderate and clearly negative potential output gaps, respectively) since 2000.

First, an easing CAPB apparently prevailed in most of the CESEE-10 countries, especially in Romania, the Baltic countries, Poland and also Slovakia. In these countries, the observed improvement of fiscal positions has been achieved more via brisk economic growth than via a consolidation of cyclically adjusted balances.

Second, in six countries out of the CESEE-10, more than 50% of the nonneutral years since 2000 were characterized by a procyclical discretionary fiscal

Table 1

Cyclicality of Discretionary Fiscal Policy in the CESEE-10

Country	Cyclical condition	2000	2001	2002	2003	2004	2005	2006	2007	2008e	Average	Procyclical fiscal policy, % of non-neutral years
<i>Annual change in cyclically adjusted primary balance, % of GDP</i>												
Bulgaria	boom				-0.1	1.1	0.2	0.8	-3.2	3.0	0.4	20
	neutral											
	downturn											
Czech Republic	boom							0.1	1.3	0.1	0.5	33
	neutral	-0.7	-1.8									
	downturn			-0.4	0.1	3.5		-1.4			1.1	
Estonia	boom							0.3	-0.4	-2.1	-0.7	71
	neutral			0.1	1.5							
	downturn	2.1	-0.3								0.9	
Hungary	boom					0.6	-2.0	-2.4	5.0	1.7	0.6	29
	neutral	0.3			1.6							
	downturn		-1.7	-5.5							-3.6	
Lithuania	boom					-0.7	0.7	-0.2	-1.4	-1.1	-0.5	63
	neutral				-0.4							
	downturn	-0.4	-1.2	1.2							-0.1	
Latvia	boom						-0.2	-1.1	-0.7	-0.6	-0.6	88
	neutral					0.4						
	downturn	1.2	0.2	-0.3	0.6						0.4	
Poland	boom	-0.9							1.0	-0.1	-0.0	57
	neutral					-0.2		0.0				
	downturn		-1.5	0.5	-1.4		1.7				-0.2	
Romania	boom					-1.1		-2.1	-0.4	-1.4	-1.2	80
	neutral				-0.7		-0.1					
	downturn			-1.3							-1.3	
Slovakia	boom					4.4	0.1	-1.1	-1.5	0.5	-0.5	40
	neutral											
	downturn	-4.1	5.6	-2.4							-0.3	
Slovenia	boom	-1.4							0.7	-0.6	-0.4	88
	neutral							-0.6				
	downturn		0.2	1.5	0.1	0.1	0.5				0.5	

Source: European Commission, AMECO database; 2008e indicates estimates as at end-October 2008.

Note: The adjustment of the cyclically adjusted primary balance (CAPB) as a percentage of GDP at current market prices is based on potential GDP. A negative (positive) change of CAPB indicates fiscal easing (tightening). The cyclical condition refers to the direction of the potential output gap, i.e. the gap between actual and potential GDP at 2000 market prices. A neutral cyclical condition represents small output gaps whose size is between the 40th and 60th percentile of the country-specific distribution of output gaps since 1997. In these neutral times, it is not clear whether the economy is in a boom or a downturn stage, and therefore we do not make deductions about the cyclicality of fiscal policy during these times. A boom condition represents positive output gaps above the 60th percentile (i.e. actual GDP lies clearly above its potential), while a downturn condition represents negative output gaps below the 40th percentile (i.e. actual GDP lies clearly below its potential). Figures in bold indicate that discretionary fiscal policy was procyclical (i.e. either fiscal easing during boom times or fiscal tightening during times of downturn). Figures in italics indicate that data were not available for the entire observation period.

stance.³ Fiscal easing during boom times was especially pronounced in Romania, the Baltic countries and Slovenia, while a tendency for fiscal tightening during downturn times can be observed in Slovenia, the Czech Republic, Latvia and Estonia.⁴

³ Procyclicality of fiscal policy is not limited to the CESEE-10. For the euro area in the period from 1999 to 2007, Deroose, Larch and Schaechter (2008) showed that there is a clear procyclical stance in both stages of the business cycle (which is especially pronounced in Germany); euro area fiscal policy appears to have been more strongly procyclical than fiscal policy in the U.S.A.

⁴ There are some differences in the size of the output gap when looking at the deviation from trend GDP instead of the deviation from potential GDP (particularly in Bulgaria, the Baltic countries and Poland). But the direction of the output gap and thus the presented cyclical pattern of fiscal policy remain largely unchanged.

It should be noted, however, that while the potential output gap figures available for 2008 still indicate that production is clearly above potential in the CESEE-10, the potential output gap went down considerably against 2007 (especially in the Baltic countries).⁵ Accordingly, the easing of most cyclically adjusted balances in 2008 can hardly be interpreted as being procyclical. This aspect relates to the difficulty that potential output gap estimates are based on uncertain future growth trajectories. Real-time and ex post output gaps may considerably differ because of statistical data revisions – particularly in the case of an unexpected downturn. Thus fiscal policy decisions might well have been based on information that later turned out to have incorrectly indicated the stage of the business cycle because forecasting errors for real GDP had been too pronounced (see also European Commission, 2006).

4 Current Fiscal Policy Choices

The presented (pre-crisis) estimations of budgetary elasticities and the comparatively small government expenditure-to-GDP ratio in the CESEE-10 indicate that the automatic stabilization function of tax and expenditure systems is not as strongly pronounced in the CESEE-10 as it is in the euro area.⁶ Notwithstanding the above-mentioned caveats, the automatic response of the budget balances to the economic downturn can be expected to be rather moderate. At first sight, this appears to point to a stronger need for a discretionary fiscal stimulus under the current cyclical conditions.

One could argue that in most CESEE-10 countries, recent fiscal positions (especially the gross debt ratio) indicate a certain leeway for taking active counter-cyclical measures. However, there are several limitations in this respect. First, as discussed in section 2, procyclical discretionary fiscal policy during boom times has reduced the room for fiscal maneuver in several countries. Second, given continuing liquidity problems at the government bond market, the financing of budget deficits through bonds (or even the roll-over of maturing public debt) is currently uncertain. Third, the room for fiscal stimulus is more generally limited by the negative effects expansionary policies would most likely have on investor confidence and thus on the availability of external financing.

A recent examination by the OECD (2009) reveals the size of fiscal stimulus packages in OECD countries (as implemented and/or announced up to March 24, 2009). In response to these packages, fiscal balances are expected to ease by about 1% of 2008 GDP in Slovakia and Poland (the same response as in Austria) and by even 3% of 2008 GDP in the Czech Republic (the same response as in Germany) over the period from 2008 to 2010. In Hungary, by contrast, the overall fiscal package has a strongly restrictive impact – the fiscal balance is expected to tighten by more than 4% of 2008 GDP.

It is not certain in advance whether these fiscal stimuli will be capable to contribute effectively to stabilizing the economy in the CESEE-10. Evidence from

⁵ According to the European Commission's estimates of October 2008, the potential output gap is expected to become clearly negative in Estonia and Latvia in 2009 and in Lithuania, Bulgaria and Poland in 2010.

⁶ It remains to be seen whether these relations continue to hold also in the future or whether the global financial crisis turns out to be a major structural break that considerably changes the size of automatic stabilizers or the cyclical pattern of fiscal policy.

multi-country models suggests that fiscal multipliers are smaller the more open an economy is, as domestic fiscal expansion is likely to leak abroad through imports (European Central Bank, 2009, box 7). A further reduction of fiscal multipliers can be expected if the agents behave in a Ricardian manner and parts of the fiscal injection flows directly into higher private savings (see Hemming, Kell and Mahfouz, 2002). Irrespective of Ricardian behavior, in the current setting households may also use additional fiscal benefits to increase their savings for precautionary reasons or to repair their balance sheets. The estimates on fiscal multipliers as presented in OECD (2009) are adjusted for the degree of openness and increasing saving propensities. They indicate that fiscal multipliers for the four OECD Member States in CESEE do not strongly differ from those for Western Europe, though they are clearly smaller than those for the U.S.A. or Japan. An increase of, e.g., government investment by 1% is found to lead to a 0.7% rise in GDP in the first year after the stimulus in Hungary, Slovakia and the Czech Republic (the same reaction intensity as in Austria), while in Poland this response is found to be higher by one decimal point (the same intensity as in Germany).

To sum up, as automatic stabilizers in the CESEE-10 are comparatively weak, there is obviously need for discretionary fiscal measures during the current severe economic downturn. But it is not clear whether fiscal stimuli can be realized in these countries at all because of limited room for budgetary maneuver. Furthermore, uncertainty about how effective fiscal stimulation packages in the CESEE-10 would be in dampening the current downturn is rather high.

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Highlights

OeNB Seminar “Recent Developments in the Baltic Countries – What Are the Lessons for Southeastern Europe?”

Compiled by Reiner
Martin and Claudia
Zauchinger

The OeNB seminar “Recent Developments in the Baltic Countries – What Are the Lessons for Southeastern Europe” took place in Vienna on March 23, 2009. The idea behind this seminar was to create a platform for discussion for the central banks of the three Baltic countries and of four Southeastern European (SEE) countries with comparable monetary policy frameworks (SEE-4: Bosnia and Herzegovina, Bulgaria, Croatia and FYR Macedonia¹). All seven countries have exchange rate regimes with low or zero nominal flexibility and are small, open economies. Considerable economic differences notwithstanding, they face a number of similar challenges. The main purpose of the seminar was thus to present and discuss country-specific experiences and to identify policy measures and approaches that could be particularly useful in the current difficult international environment.

The seminar started with the presentation of the background paper prepared by *Reiner Martin* (ECB; currently OeNB) and *Claudia Zauchinger* (OeNB). The paper states that the recent catching-up process in particular in the Baltic countries, Bulgaria and Croatia was predominantly driven by domestic demand, which in turn was fueled by strong credit growth – often in foreign currency. Financial deepening was fostered by decreasing nominal and real interest rates – not least due to the fixed exchange rate regimes – and rapidly growing asset prices. Fiscal policy tended to be insufficiently restrictive or even procyclical. Fast growth resulted in substantial internal and external macroeconomic imbalances. HICP inflation in the Baltic countries and Bulgaria increased to above 10% in 2008, and current account deficits widened to more than 20% in some countries, with real appreciation likely to have reduced competitiveness.

The paper argues that the reasons for the end of the boom in the Baltic countries were country-specific and unrelated to the current financial crisis. The impact of the crisis, however, severely aggravated the situation and is now being felt in all seven countries, making it difficult to obtain financing abroad and weakening foreign demand. When looking at the macrofinancial challenges, recent gross foreign debt figures exceed 100% of GDP in Estonia, Latvia and Bulgaria, and short-term debt levels also show a clear upward trend across the seven countries. Foreign currency reserves as a share of short-term debt are rather uneven across countries and well below 100% in the Baltic countries. Almost all sovereign ratings were recently downgraded or the outlook was revised to negative, and CDS spreads soared.

Available indicators suggest that all seven countries – and in particular the Baltic countries – have rather flexible capital markets. For product markets, the picture is more mixed, especially in the SEE-4 countries except Croatia. Labor market indicators for the Baltic countries are less favorable than capital and product market indicators. Except for Bulgaria, the SEE-4 countries are not doing too well in this respect either. Overall summary rankings suggest that the Baltic countries and Bulgaria have very flexible economies by international standards, whereas FYR Macedonia, Croatia and Bosnia and Herzegovina are lagging further behind.

¹ “FYR Macedonia” refers to the former Yugoslav Republic of Macedonia.

The seven countries now face the key question of how to return to a sustainable growth path.

Next, *Dubravko Mihajek* (BIS) presented a paper called “Catching-Up and Inflation in Transition Economies: The Balassa-Samuelson Effect Revisited.” According to Mihajek, the peaks of inflation in many CEE countries in 2008 were mainly triggered by high oil prices, a poor crop and high wage growth rather than the BS effect. He also argued that BS effect estimates vary a lot across countries and over time and that most of the estimates suggest that BS effects are rather small. Nevertheless, he argued that the BS effect cannot be entirely disregarded and that its analysis can help understand competitiveness issues. More specifically, his BS estimates suggest that Latvia, Bulgaria and Croatia lost competitiveness in recent years, whereas Estonia and Lithuania appear to have maintained it. This contrasts with real exchange rate developments suggesting that Croatia, Latvia and Lithuania maintained their competitiveness over time (or at least until 2007). Such differences indicate a need to evaluate in more detail alternative measures of competitiveness, not least given the important role external imbalances have played in the Baltic and fixed exchange rate SEE countries in recent years.

Max Watson (University of Oxford) presented a paper on “Financial Stability in a Brave New World” focusing on adjustment needs and adjustment options in the Baltic and SEE countries. He argued that Eastern Europe must change its current growth model based on large-scale capital inflows because a period of “cheap and readily available” money is unlikely to return anytime soon. Eastern Europe is thus more structurally affected by the current financial crisis than other emerging market regions. He also elaborated on adjustment “tradeoffs” for different currency regimes. Whereas countries with flexible markets and high balance-sheet risks have a clear case to hold on to a peg, a country with rigid markets and low balance-sheet risks has a clear case to devalue nominally. In a “grey area” are countries with flexible markets and low balance-sheet risks or rigid markets and high balance-sheet risks. These cases require a careful country-by-country assessment and are likely to face tough choices. Watson argued that the scale of the problem in Eastern Europe requires an EU approach, that countries operating in the region should be “convinced” to maintain their exposure and that it needs to be a key policy goal to pull non-leveraged funds into the region.

In the *Baltic Session*, representatives of the Baltic central banks presented the economic situation in and an outlook for their countries.

Ülo Kaasik (Eesti Pank) argued that over-optimistic expectations were behind the exuberant credit and wage growth in Estonia. The authorities had failed to manage those expectations properly. At the same time he argued that Estonia did not suffer from a loss of competitiveness and that the government budget reserves of 10% of GDP are now a useful buffer although more could have been done as regards fiscal policy. Although Estonia is now in a deep recession, the economy is, according to Kaasik, in a better shape than the other Baltic countries. The labor market responds in a flexible manner and wage growth is decelerating rapidly. Lending to companies has not stopped yet, intra-banking group financial flows are still stable and, in his view, short-term liabilities are not a problem for Estonia. The nonperforming loan ratio, though increasing very fast, is still quite low and the banks can cover a significant writedown of their loan portfolio with their reserves. Kaasik regards the fixed exchange rate regime as a good anchor for both

inflation expectations and wage flexibility and expects that Estonia will meet the inflation criterion in late 2009, which would pave the way for a successful convergence assessment in 2010.

Karlis Bauze (Latvijas Banka) argued that the Latvian government's anti-inflation plan contained a range of effective measures (e.g. the establishment of a central credit register, incentives to increase savings, the need to provide tax certificates for income as a precondition for bank credits) but that it was implemented too late. Regulators could have done more, too (e.g. raise the capital adequacy ratio for banks and move more swiftly to impose limits on banks' open foreign exchange positions). Bauze also mentioned that earlier attempts by banks to reduce credit growth had been counteracted by nonbanks providing more credit – although at higher rates. Since the start of the crisis wage growth has decelerated rapidly and is expected to be negative in the first quarter of 2009. At the same time, social expenditures increase rapidly and more strongly than expected. CDS spreads for Latvia were at times larger than those for Iceland, which Bauze saw as clearly not realistic. A tight income policy, implemented primarily through cuts in public sector wages and employment, is considered to be the most effective instrument for restoring competitiveness. In the medium run, Bauze sees a need for structural reforms, mostly in education and health care, which are inefficient sectors. Such reforms can now be more easily justified by politicians than in the past.

Raimondas Kuodis (Lietuvos bankas) explained that in Lithuania imbalances are less pronounced than in the other Baltic countries because the financial deepening process had started later. Nevertheless, Lietuvos bankas had warned about a real estate bubble in Lithuania already in 2004. The country for instance did not levy a general property tax, and tax subsidies for mortgages should have been eliminated much earlier. In addition, Lithuania traditionally has small but persistent budget deficits resulting in a situation where there are no buffers in the budget. On the positive side, wage bargaining is completely decentralized in the country, and wage growth fell already strongly in 2008. Hence, Kuodis argued, there is no need for Lithuania to have a flexible nominal exchange rate. ULC growth in recent years was observed mostly in the nontradable sector, which did not affect competitiveness. In fact, trade imbalances were almost zero in January 2009. Kuodis concluded that a fixed exchange rate regime makes economic management easier and should therefore be preserved.

The afternoon session was dedicated to the SEE countries with low or zero nominal exchange rate flexibility.² The situation within this group of countries is even more heterogeneous than within the Baltic states.

Amir Hadziomeragic (Centralna banka Bosne i Hercegovine) presented the current situation in Bosnia and Herzegovina. Owing to the war, the transition process and the period of strong growth and productivity gains started only lately. During the recent strong growth period, high unemployment mitigated possible wage pressure. Fiscal policy was expansionary before the global crisis started. The banking sector in Bosnia and Herzegovina is still rather traditional. The credit to deposit ratio and the ratio of short-term debt to foreign exchange reserves are both low although the country also relied on capital inflows in recent years. On a

² *The National Bank of the Republic of Macedonia was not represented at the seminar.*

more skeptical note, Hadziomeragic argued that cross-border banking supervision had not been adequate in the past. Moreover, the resilience and flexibility of the country's economy in a serious downturn are largely untested and there are still quite a few obstacles to private sector growth. Finally, given the importance of remittances for the economy of Bosnia and Herzegovina, Hadziomeragic worried about the impact of a significant decline in remittances if migrants need to return to their country.

Kalin Hristov (Bulgarian National Bank) explained that Bulgaria's macroeconomic policy is strongly based on the currency board. Bulgaria has invariably registered fiscal surpluses since 2003. This is largely due to the rule that once the budget hits 0%, expenditures are cut. He also emphasized that in Bulgaria wage bargaining is decentralized. Banks started to "import" capital to Bulgaria in 2007, and 2008 banking sector profits are being reinvested, which further strengthens the banking sector. He stressed that foreign banks in Bulgaria cannot in any case withdraw quickly given the assets they have in the country. In the worst case, only gradual "bleeding" would be possible. Since late 2008 the large current account deficit has been adjusted via the trade channel (imports, which are mostly investment goods, are declining more rapidly than exports). FDI inflows are still strong and Hristov argued that they are in fact the reason for Bulgaria's large current account deficit. They should thus not only be seen as a means to cover this deficit.

Ljubinko Jankov (Hrvatska narodna banka) gave a detailed account of the measures with which Croatia's central bank had tried to slow down credit growth in the past, e.g. the high reserve requirements for foreign currency loans. In his view, these measures had some impact on household borrowing but practically none on loans to enterprises. He emphasized that there are no plans to change the managed float. Croatia entered the crisis with a high level of foreign currency reserves, which reduces vulnerabilities, although it is still possible to envisage a shock where people withdraw large amounts of euro cash from banks. Croatia recently observed a significant change in the structure of lending, with lending to private nonfinancial enterprises having contracted and lending to banks (from parent banks) having increased.

Both sessions were followed by general discussions about the growth and convergence processes of these countries and of how they should react to the current crisis. Among others, the following issues were raised: the role of the government, the effectiveness of fiscal measures, adequate regulatory frameworks as well as euro area entry as an exit strategy. These points were summarized in the concluding remarks by *Doris Ritzberger-Grünwald* (OeNB). Representatives of the Greek and Swedish central banks, who chaired the sessions, emphasized that the banks in their countries have no plans to leave the countries in the region.

Selected Abstracts

The selected abstracts below alert readers to studies on CESEE topics in other OeNB publications. You may find the full-length contributions at www.oenb.at.

Austria's Exports to Eastern Europe: Facts and Forecasts Likely Impact of Slowing Exports on Growth in Austria

Christian Ragacs,
Klaus Vondra

In 2008, 72.1% of all Austrian goods exports went to the EU-27; thereof, 17.6% went to the Eastern European states that joined the EU in 2004 and 2007, and 24.6% to Eastern Europe at large. While export demand for Austrian goods has declined markedly since the end of 2008, in the context of the international economic crisis, exports to the “new” Member States declined somewhat less than those going to the “old EU.” This article offers a brief overview of the extent and development of Austrian exports to Eastern Europe, the latest growth forecasts for these countries, and their implications for Austria’s growth forecast. The latest forecasts for Eastern Europe, while pessimistic and mixed in line with the global trend, indicate that growth rates – especially in the “new” EU Member States – are still higher (or that recessions are still weaker) on average than in Western Europe. Simulations with the OeNB’s macro model show that the growth setbacks anticipated for Eastern Europe by the latest forecasts are likely to push the decline in Austria’s real GDP growth another 0.7 percentage points below the rate implied by the OeNB’s December 2008 forecast.

Published in *Monetary Policy & the Economy Q1/09*.

Direct Cross-Border Lending by Austrian Banks to Eastern Europe

Claus Puhr,
Markus Schwaiger,
Michael Sigmund

Direct cross-border lending is an important component in the ongoing process of financial deepening in Central, Eastern and Southeastern Europe (CESEE) and the Commonwealth of Independent States (CIS). We use a loan-level dataset of Austrian banks to study the characteristics as well as the major driving forces of direct cross-border lending in CESEE and the CIS. Direct cross-border lending to nonbanks by Austrian banks expanded rapidly over the last few years; the bulk of loans is extended to corporate customers and is denominated in a foreign currency, with the euro taking a prominent position. By means of a series of univariate analyses, we provide support for the relevance of geographic proximity – small and medium-sized banks mainly lend to neighboring countries. Banks’ direct lending also seems to follow nonfinancial FDI by Austrian corporates to CESEE and the CIS. We furthermore analyze the interdependencies between direct (i.e. by Austrian headquarters) and indirect (i.e. by local subsidiaries) cross-border lending and find support for a complementary effect between the two. In addition, host country factors such as GDP growth, private sector credit growth, financial intermediation growth and wage growth are also associated with direct lending growth.

To be published in *Financial Stability Report 17*.

Banking and Financial Stability in Russia and the Euro Area amid International Financial Market Turbulences

This study was drafted during the preparation of the Fifth Joint High-Level Euro-system – Bank of Russia Seminar hosted by the OeNB in Vienna on March 11–12, 2009. The first part of the study illustrates developments in the euro area, where the financial sector suffered to some extent from spillover effects from the first waves of the subprime crisis and later more substantially from the demise of Lehman Brothers. While rescue actions taken by national authorities and the ECB mitigated crisis effects, current challenges arise from a cyclical deterioration of credit quality and further adverse developments in global financial markets. The study highlights the considerable exposure of euro area banks to emerging Europe in general and their more modest exposure to Russia in particular. It then discusses developments in Russia: Embarking from a quite favorable macroeconomic environment, Russia was caught up in the global financial turbulences only in recent months, but the impact was heavy and exacerbated by structural weaknesses of the Russian economy. The Russian authorities' crisis response measures have been substantial and contributed to staving off a systemic banking crisis, but the sector remains fragile. The paper concludes with comments on lessons learnt: Confidence – which is the foundation of the financial system – needs to be restored. Structural and institutional problems have to be addressed adequately. Interbank markets should be made more resilient to shocks.

To be published in *Financial Stability Report 17*.

Stephan Barisitz,
Gernot Ebner,
Mathias Lahnsteiner,
Johannes Pann

Olga Radzyner Award for Scientific Work on European Economic Integration

The Oesterreichische Nationalbank has established an award to commemorate Olga Radzyner, former Head of the Foreign Research Division, who died in a tragic accident in August 1999. The award is bestowed on young economists for excellent research focused on topics of European economic integration and is conferred annually. In 2009, four applicants are eligible to receive a single payment of EUR 3,000 each from an annual total of EUR 12,000.

The submitted work shall be in the form of a master's or doctoral thesis, a working paper or a scientific article, and shall be in English or in German. Authors shall submit the work before their 35th birthday and shall be citizens of any of the following countries: Albania, Bosnia and Herzegovina, Bulgaria, Croatia, the Czech Republic, Estonia, FYR Macedonia, Hungary, Kosovo, Latvia, Lithuania, Montenegro, Poland, Romania, Serbia, Slovakia or Slovenia.

To identify their work as a submission, applicants shall mark the envelope with the reference "Olga Radzyner Award" and send it to the Oesterreichische Nationalbank, Foreign Research Division, Otto-Wagner-Platz 3, PO Box 61, 1011 Vienna, Austria. The Oesterreichische Nationalbank shall receive the work submitted for the award in 2009 by October 2, 2009, at the latest.

For detailed information, please visit our Internet website at <http://ceec.oenb.at> or contact Ms. Eva Gehringer-Wasserbauer in the Foreign Research Division of the Oesterreichische Nationalbank either by e-mail (eva.gehringer-wasserbauer@oenb.at) or by phone (+43-1-404 20-5205).

Statistical Annex

Statistical Annex

This section presents statistical information on selected economic indicators for CESEE countries not covered in the Recent Economic Developments section, namely Albania, Bosnia and Herzegovina, FYR Macedonia¹, Serbia, Montenegro and Ukraine.

Table 1

Gross Domestic Product

	2002	2003	2004	2005	2006	2007	2008
	Annual real change in %						
Albania	4.2	5.8	5.7	5.7	5.5	6.2	6.1
Bosnia and Herzegovina	5.5	3.0	6.3	3.9	6.9	6.8	5.0
FYR Macedonia ¹	0.9	2.8	4.1	4.1	4.0	5.9	5.3
Serbia	3.6	2.8	8.2	6.0	5.6	7.1	6.1
Montenegro	1.9	2.5	4.4	4.2	8.6	10.7	8.1
Ukraine	5.2	9.6	12.1	2.7	7.3	7.9	2.1

Source: wiw.

¹ Former Yugoslav Republic of Macedonia.

Table 2

Industrial Production

	2002	2003	2004	2005	2006	2007	2008
	Annual real change in %						
Albania	-5.1	29.0	14.1	11.7	12.1	-16.3	6.0
Bosnia and Herzegovina	5.7	5.1	12.1	10.8	11.5	6.4	11.0
FYR Macedonia	-4.8	4.1	-2.2	7.1	3.6	3.7	5.5
Serbia	1.8	-3.0	7.1	0.8	4.7	3.7	1.1
Montenegro	0.6	2.4	13.8	-1.9	1.0	0.1	-2.0
Ukraine	7.0	15.8	12.5	3.1	6.2	10.2	-3.1

Source: wiw.

Table 3

Average Gross Wages – Total Economy

	2002	2003	2004	2005	2006	2007	2008
	Annual change in %						
Albania	11.6	12.0	2.8	5.0	7.5	8.1	8.9
Bosnia and Herzegovina ¹	5.7	5.1	12.1	10.8	11.5	6.4	11.0
FYR Macedonia	6.4	4.9	4.1	2.7	8.0	4.8	8.7
Serbia	52.6	25.3	23.7	24.1	24.4	22.1	17.9
Montenegro	42.6	7.8	11.7	7.8	15.6	31.7	22.5
Ukraine	21.0	22.8	27.6	36.7	29.2	29.7	33.7

Source: wiw.

¹ Net wages.

¹ Former Yugoslav Republic of Macedonia.

Table 4

Unemployment Rate

	2002	2003	2004	2005	2006	2007	2008
	<i>End of period, %</i>						
Albania ¹	15.8	15.0	14.4	14.1	13.8	13.2	12.6
Bosnia and Herzegovina ¹	40.9	41.9	43.2	44.1	44.1	42.5	40.6
FYR Macedonia ²	31.9	36.7	37.2	37.3	36.0	34.9	33.8
Serbia ²	13.3	14.6	18.5	20.8	20.9	18.1	14.0
Montenegro ²	20.7	22.7	27.7	30.3	29.6	19.3	17.2
Ukraine ²	9.6	9.1	8.6	7.2	6.8	6.4	6.7

Source: *wiiw*.

¹ Registered unemployment, end of period.

² Labor Force Survey, period average.

Table 5

Industrial Producer Price Index

	2002	2003	2004	2005	2006	2007	2008
	<i>Period average, annual change in %</i>						
Albania ¹	-1.5	8.7	12.2	4.9	0.8	3.5	7.3
Bosnia and Herzegovina ²	-0.3	-0.1	2.3	-0.6	3.4	4.6	..
FYR Macedonia	-0.9	-0.3	0.9	3.2	7.3	2.5	10.3
Serbia	8.8	4.6	9.1	14.2	13.3	5.9	12.4
Montenegro	14.5	4.5	5.8	2.1	3.6	8.5	14.0
Ukraine	3.0	7.6	20.5	16.7	9.6	19.5	35.5

Source: *wiiw*, national sources.

¹ Manufacturing industry.

² Federation of Bosnia and Herzegovina.

Table 6

Consumer Price Index

	2002	2003	2004	2005	2006	2007	2008
	<i>Period average, annual change in %</i>						
Albania	5.2	2.4	2.9	2.4	2.4	2.9	3.4
Bosnia and Herzegovina	1.3	1.1	0.8	3.0	6.2	1.5	7.5
FYR Macedonia	1.8	1.2	-0.4	0.5	3.2	2.3	8.3
Serbia	16.6	9.9	11.4	16.2	11.7	7.0	11.7
Montenegro	16.0	6.7	2.4	2.3	3.0	4.2	7.4
Ukraine	0.8	5.2	9.0	13.5	9.1	12.8	25.2

Source: *wiiw*.

Table 7

Trade Balance

	2002	2003	2004	2005	2006	2007	2008
	<i>% of annual GDP</i>						
Albania	-25.9	-23.3	-21.7	-22.5	-22.9	-26.5	-28.0
Bosnia and Herzegovina	-53.7	-53.4	-45.6	-45.8	-34.8	-37.4	..
FYR Macedonia	-21.4	-18.3	-21.1	-18.4	-20.1	-20.3	-26.7
Serbia	-21.1	-20.4	-27.2	-20.9	-21.2	-22.9	-22.8
Montenegro	-31.2	-23.8	-24.9	-28.3	-39.5	-47.8	-43.1
Ukraine	1.7	1.0	5.8	-1.3	-4.8	-7.4	-9.4

Source: wiiw.

Table 8

Current Account Balance

	2002	2003	2004	2005	2006	2007	2008
	<i>% of annual GDP</i>						
Albania	-9.4	-6.9	-5.8	-9.0	-6.5	-10.5	-15.0
Bosnia and Herzegovina	-19.1	-20.9	-16.3	-17.3	-7.8	-12.6	-12.8
FYR Macedonia	-10.0	-4.1	-8.4	-2.6	-0.9	-7.2	-13.1
Serbia	-4.3	-7.8	-13.8	-8.7	-10.1	-15.9	-17.6
Montenegro	-12.0	-6.8	-7.2	-8.5	-24.7	-29.4	-29.2
Ukraine	7.5	5.8	10.6	2.9	-1.5	-4.1	-7.2

Source: wiiw.

Table 9

Net FDI Inflows

	2002	2003	2004	2005	2006	2007	2008
	<i>% of annual GDP</i>						
Albania	3.0	3.1	4.6	3.2	3.5	5.9	7.2
Bosnia and Herzegovina	4.3	4.9	7.0	5.7	5.8	13.8	..
FYR Macedonia	2.8	2.4	6.0	1.6	6.8	8.8	6.5
Serbia	3.1	6.9	4.1	6.1	14.4	6.3	5.5
Montenegro	6.6	2.6	3.0	21.0	21.7	18.7	17.0
Ukraine	1.6	2.8	2.6	8.7	5.3	6.5	5.4

Source: wiiw.

Table 10

Reserve Assets Excluding Gold

	2002	2003	2004	2005	2006	2007	2008
	<i>End of period, % of annual GDP</i>						
Albania	16.7	15.6	16.7	17.9	18.4	17.8	18.8
Bosnia and Herzegovina	19.4	20.8	22.0	25.0	28.5	31.0	25.8
FYR Macedonia	17.3	16.7	15.1	22.0	25.8	24.2	18.7
Serbia	12.8	15.6	15.7	23.3	37.4	32.4	23.5
Montenegro	x	x	x	x	x	x	x
Ukraine	9.1	12.1	13.4	23.2	19.3	20.8	17.7

Source: wiiw.

Table 11

Gross External Debt

	2002	2003	2004	2005	2006	2007	2008
	<i>End of period, % of annual GDP</i>						
Albania	25.3	22.0	20.8	20.9	20.0	18.2	19.7
Bosnia and Herzegovina ¹	33.5	29.9	25.6	25.7	21.3	18.3	17.2
FYR Macedonia	39.3	35.9	47.9	53.9	49.1	48.9	51.0
Serbia	66.4	62.1	54.1	64.0	63.0	61.1	64.7
Montenegro	65.7	30.6	29.3	28.3	23.5	16.5	14.4
Ukraine	27.3	42.9	43.1	48.5	48.2	53.7	59.4

Source: wiiw.

¹ Gross external public debt.

Table 12

General Government Balance

	2002	2003	2004	2005	2006	2007	2008
	<i>% of GDP</i>						
Albania	-6.1	-4.9	-5.1	-3.5	-3.3	-3.5	-4.0
Bosnia and Herzegovina	-0.1	0.8	1.6	2.4	2.9	1.3	2.0
FYR Macedonia	-5.0	-1.1	0.0	0.3	-0.5	0.6	-0.9
Serbia	-3.2	-1.1	0.9	0.9	-1.7	-1.9	-2.5
Montenegro	-2.8	-3.1	-2.0	-1.7	1.6	6.0	1.2
Ukraine	0.7	-0.2	-3.2	-1.8	-0.7	-1.1	-1.5

Source: wiiw.

Table 13

Gross General Government Debt

	2002	2003	2004	2005	2006	2007	2008
	<i>% of annual GDP</i>						
Albania	65.3	60.7	57.7	58.1	55.9	53.1	53.5
Bosnia and Herzegovina	x	30.2	27.5	27.5	22.9	20.5	20.0
FYR Macedonia	48.7	45.0	43.8	48.5	41.5	29.0	..
Serbia	x	64.3	53.3	50.3	36.2	29.4	25.3
Montenegro	88.3	47.1	44.5	38.6	32.6	26.3	26.8
Ukraine	33.5	29.3	24.7	17.7	14.8	12.4	12.0

Source: European Commission, wiiw.

Table 14

Broad Money

	2002	2003	2004	2005	2006	2007	2008
	<i>End of period, annual nominal change in %</i>						
Albania (M2)	12.2	7.6	8.2	11.7	7.6	9.2	7.0
Bosnia and Herzegovina (M2)	66.7	4.8	21.0	17.6	21.6	25.0	13.6
FYR Macedonia	-9.5	15.7	17.0	15.0	25.0	29.3	11.4
Serbia (M3)	73.4	29.1	31.2	39.1	37.4	41.1	29.6
Montenegro (M21)	x	-0.3	10.6	58.7	82.9	71.9	-14.3
Ukraine	41.8	46.5	32.4	54.3	34.5	51.7	30.2

Source: European Commission, wiiw.

Table 15

Official Key Interest Rate

	2002	2003	2004	2005	2006	2007	2008
	<i>End of period, %</i>						
Albania (refinancing base rate)	8.5	6.5	5.3	5.0	5.5	6.3	6.3
Bosnia and Herzegovina ¹	x	x	x	x	x	x	x
FYR Macedonia (discount rate)	10.70	6.50	6.50	6.50	6.50	6.50	6.50
Serbia (discount rate)	9.50	9.00	8.50	8.50	8.50	8.50	8.50
Montenegro ²	x	x	x	x	x	x	x
Ukraine (refinancing rate) ³	7.00	7.00	9.00	9.50	8.50	8.00	12.00

Source: Eurostat, Bloomberg, wiiw, IMF.

¹ Currency board.² Unilateral euroization.³ Average.

Table 16

Exchange Rate

	2002	2003	2004	2005	2006	2007	2008
	<i>Period average, national currency per EUR</i>						
Albania	132.36	137.51	127.67	124.19	123.08	123.62	122.80
Bosnia and Herzegovina	1.96	1.96	1.96	1.96	1.96	1.96	1.96
FYR Macedonia	60.98	61.26	61.34	61.30	61.19	61.18	61.27
Serbia	60.68	65.05	72.57	82.91	84.19	79.98	81.90
Montenegro	x	x	x	x	x	x	x
Ukraine	5.03	6.02	6.61	6.39	6.34	6.92	7.71

Source: wiiw, national sources, Thomson Reuters.

Notes

Legend, Abbreviations and Definitions

Legend

x = No data can be indicated for technical reasons

.. = Data not available at the reporting date

Discrepancies may arise from rounding.

Abbreviations

BIS	Bank for International Settlements
BOF	Suomen Pankki – Finlands Bank (Bank of Finland)
BOFIT	Bank of Finland Institute for Economies in Transition
CDS	credit default swap
CEE	Central and Eastern Europe(an)
CEEC	Central and Eastern European country
CEEI	Conference on European Economic Integration (OeNB)
CESEE	Central, Eastern and Southeastern Europe(an)
CIS	Commonwealth of Independent States
CPI	consumer price index
EBRD	European Bank for Reconstruction and Development
ECB	European Central Bank
ECU	European Currency Unit
EIB	European Investment Bank
EMU	Economic and Monetary Union
ERM (II)	exchange rate mechanism (II)
ESA	European System of Accounts
ESCB	European System of Central Banks
ESES	European Structure of Earnings Survey
EU	European Union
FCC	foreign currency cash
FCD(s)	foreign currency deposit(s)
FDI	foreign direct investment
FEEI	Focus on European Economic Integration
GATE	Groupe d'Analyse et de Théorie Économique
GDP	gross domestic product
GFCF	gross fixed capital formation
GVA	gross value added
HICP	Harmonised Index of Consumer Prices
ILO	International Labour Organization
ISCED	International Standard Classification of Education
LFS	labor force survey
IMF	International Monetary Fund
MFI	monetary financial institution
NACE	Nomenclature générale des activités économiques (Nomenclature for economic activities)
NBER	National Bureau of Economic Research
NCB	national central bank
NMS	new Member State(s) (EU)

NUTS	Nomenclature of Territorial Statistical Units
OECD	Organisation for Economic Co-operation and Development
OeNB	Oesterreichische Nationalbank
OLS	ordinary least squares
ÖNACE	Austrian Statistical Classification of Economic Activities
PPP	purchasing power parity
SEE	Southeastern Europe(an)
SITC	Standard International Trade Classification
SME(s)	small and medium-sized enterprise(s)
SUERF	Société Universitaire Européenne de Recherches Financières The European Money and Finance Forum
UIP	uncovered interest rate parity
ULC	unit labor costs
UN	United Nations
UNCTAD	United Nations Conference on Trade and Development
VAR	value at risk
VAT	value-added tax
WEO	World Economic Outlook (IMF)
WIFO	Österreichisches Institut für Wirtschaftsforschung – Austrian Institute of Economic Research
wiiw	Wiener Institut für internationale Wirtschaftsvergleiche – The Vienna Institute for International Economic Studies
WTO	World Trade Organization

National Central Banks

BNB	Bulgarian National Bank
BNR	Banca Națională a României (National Bank of Romania)
BS	Banka Slovenije (Bank of Slovenia)
CBBH	Centralna banka Bosne e Hercegovine (Central Bank of Bosnia and Herzegovina)
CBCG	Centralna banka Crne Gore (Central Bank of Montenegro)
CBR	Central Bank of the Russian Federation (Bank of Russia)
ČNB	Česka národní banka (Czech National Bank)
HNB	Hrvatska narodna banka (Croatian National Bank)
MNB	Magyar Nemzeti Bank (Hungary's central bank)
NBP	Narodowy Bank Polski (National Bank of Poland)
NBS	Národná banka Slovenska (National Bank of Slovakia)
NBS	Narodna banka Srbije (National Bank of Serbia)
NBU	National Bank of Ukraine
TCMB	Türkiye Cumhuriyet Merkez Bankası (Central Bank of the Republic of Turkey)

ISO Currency Codes

BGN	Bulgarian lev
CZK	Czech koruna
EUR	euro
HRK	Croatian kuna
HUF	Hungarian forint

PLN	Polish zloty
RON	Romanian leu
RSD	Serbian dinar
RUB	Russian ruble
SFR	Swiss franc
SIT	Slovenian tolar
SKK	Slovak koruna
TRY	Turkish lira
USD	U.S. dollar

ISO Country Codes

AL	Albania
AM	Armenia
AT	Austria
AZ	Azerbaijan
BA	Bosnia and Herzegovina
BE	Belgium
BG	Bulgaria
BY	Belarus
CY	Cyprus
CZ	Czech Republic
DE	Germany
DK	Denmark
EE	Estonia
ES	Spain
FI	Finland
FR	France
GR	Greece
HR	Croatia
HU	Hungary
IE	Ireland
IT	Italy
KZ	Kazakhstan
LT	Lithuania
LU	Luxembourg
LV	Latvia
MD	Republic of Moldova
ME	Republic of Montenegro
MK	former Yugoslav Republic of Macedonia (FYR Macedonia)
MT	Malta
NL	Netherlands
NO	Norway
PL	Poland
PT	Portugal
RO	Romania
RS	Republic of Serbia
RU	Russia
SE	Sweden

SI	Slovenia
SK	Slovakia
TR	Turkey
UA	Ukraine
UK	United Kingdom
US	U.S.A.

Definitions

Croatia, FYR Macedonia and Turkey are candidate countries within the EU enlargement process. Candidate countries are countries which have formally applied to the European Union for membership and have been officially recognized by the European Council as a candidate for membership. Accession negotiations with Croatia and Turkey were opened in October 2005. No date has been set yet for the opening of accession negotiations with FYR Macedonia.

Albania, Bosnia and Herzegovina, Montenegro and Serbia are potential EU candidate countries, i. e. countries that may become officially recognized candidates for membership. Western Balkan countries involved in the Stabilisation and Association process are recognized as potential candidate countries.

Periodical Publications of the Oesterreichische Nationalbank

For further details 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 summarizes the findings of macroeconomic workshops and conferences organized by the OeNB.

Focus on European Economic Integration quarterly

The Focus on European Economic Integration (FEEI) is a channel for communicating the OeNB's ongoing research on Central, Eastern and Southeastern European (CESEE) countries, thus reflecting a strategic regional research priority of the OeNB. Contributions to the quarterly FEEI include peer reviewed studies dealing primarily with macrofinancial and monetary integration as well as economic country analyses and cross-regional comparisons.

Statistiken – Daten & Analysen quarterly

This publication contains brief reports and analyses focusing on Austrian financial institutions, cross-border transactions and positions as well as financial flows. The contributions are in German, with executive summaries of the analyses in English. The statistical part covers tables and explanatory notes on a wide range of macroeconomic, financial and monetary indicators. The tables and additional information and data are also available on the OeNB's website in both German and English. This series also includes special issues on selected statistics topics published at irregular intervals.

econ.newsletter quarterly

The quarterly English-language newsletter is published only on the Internet and informs an international readership about selected findings, research topics and activities of the OeNB's Economic Analysis and Research Department. This publication addresses colleagues from other central banks or international institutions, economic policy researchers, decision makers and anyone with an interest in macroeconomics. Furthermore, the newsletter offers information on publications, studies or working papers as well as events (conferences, lectures and workshops).

For further details see www.oenb.at/econ.newsletter

Financial Stability Report semiannual

Issued both in German and English, the Financial Stability Report contains first, a regular analysis of Austrian and international developments with an impact on financial stability and second, studies designed to provide in-depth insights into specific topics related to financial market stability.

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.

Economics Conference (Conference Proceedings)

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 policy-makers, financial market players, academics and researchers. The conference proceedings comprise all papers presented at the conference.

Conference on European Economic Integration (Conference Proceedings)

annual

This series, published in English by a renowned international publishing house, reflects presentations made at the OeNB's annual conference on Central, Eastern and Southeastern European issues and the ongoing EU enlargement process (formerly East-West Conference).

For further details see <http://ceec.oenb.at>

Annual 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.

Intellectual Capital Report

annual

The Intellectual Capital Report is a review of the OeNB's intellectual capital and its use in the OeNB's business processes and services. The report clarifies the relationships between different types of human, relational, structural and innovation capital and describes various determinants that influence the OeNB's intellectual capital. The report provides an integrated view of the OeNB and serves to assess the consistency of the OeNB's intellectual capital with its knowledge-based strategic orientation.

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