

FOCUS ON EUROPEAN ECONOMIC INTEGRATION

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The views expressed are those of the authors and need not necessarily coincide with the views of the Oesterreichische Nationalbank.

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The screenshot displays the website of the Oesterreichische Nationalbank (OENB), part of the Eurosystem. The header features the OENB logo and the text "OESTERREICHISCHE NATIONALBANK EUROSYSTEM". A navigation menu includes "Home", "Monetary Policy and Economics", and "Central and Eastern Europe". A search bar is located in the top right corner.

The main content area is titled "Central and Eastern Europe" and features the "CEEC Research Platform (ceec.oenb.at)". A brief description states: "The CEEC Research Platform of the Oesterreichische Nationalbank's Foreign Research Division offers you selected reports, analyses and studies about economic developments in Central and Eastern Europe. Furthermore, you will find information about related events scheduled at the Oesterreichische Nationalbank."

Below this, there are sections for "Developments in Selected CEE/SEE Countries" and "Focus on European Economic Integration". The "Financial Stability Report" section is also visible, mentioning "Financial Stability Report 14" and its focus on regular analyses of Austria and international developments.

A sidebar on the left contains a "Table of Contents" with various categories such as "About the OENB", "Monetary Policy and Economics", "Central and Eastern Europe", "Focus on European Economic Integration", "Exchange Rates", "Banking Sector and Financial Stability", "Trade and Direct Investment", "Real Economy, Labor Market, Inflation", "Institutional Topics", "EU Engagement", "Country Information", "Technical Cooperation and JG", "ACER", "Litha", "Conflict of Interests", "E-mail Service", "Economic Publications", "Geld Summer School", "Tasks and Duties of the Economic Analysis and Research Section", "Financial Market and Stability", "Statistics and Reporting", "Payments Processing", "Media and Publications", and "Services and Events".

At the bottom, there is an "Events" section with the title "E2ed East Asia Risk: Swerving Prices in Emerging Europe: Temporary Phenomenon or Lasting Challenge?" dated 12 June 2018.

Editorial

Dear reader,

The Times They Are a-Changin'

This famous song line definitely holds for the global economic situation, which has deteriorated significantly since the last issue of Focus on European Economic Integration (FEEI) was published. As we all know, economic turmoil – which has drastically changed economic forecasts and overturned traditional views – has not been confined to the U.S.A. Obviously, neither industrialized economies nor emerging markets all over the world have been able to decouple from U.S. developments. As a result, countries in Central, Eastern and Southeastern Europe (CESEE) as well as the Commonwealth of Independent States are facing a significant downturn. The good news is that, with a few exceptions, growth rates for 2009 are still positive. The often-cited growth differential in favor of Austria's neighboring countries is thus still in place. Read more about this in the Recent Economic Developments section.

Two of the studies published in this FEEI issue cover another topic that is especially relevant given the ongoing turmoil: Balázs Égert (OECD, formerly OeNB) and Reiner Martin (currently at the OeNB, on leave from the ECB) deal with Real Estate, Construction and Growth in Central and Eastern Europe. Whereas they take a closer look at the impact of real estate and construction sector developments on competitiveness, Zoltan Walko analyzes Housing Loan Developments in the Central and Eastern European EU Member States. In addition, you will find the 2008 Spring Wave Update of the OeNB Euro Survey in Central, Eastern and Southeastern Europe by Sandra Dvorsky, Thomas Scheiber and Helmut Stix. In our series on financial sector studies, Stephan Barisitz and Sándor Gardó, more or less for the first time in this publication, focus on Serbia. Finally, the summary of the OeNB's East Jour Fixe of June on inflation was compiled by Markus Eller.

The Times They Are a-Changing not only characterizes the current economic situation, it also holds for this publication itself – but in a positive sense. From 2009 onward, you will receive four instead of two FEEI issues. This does not necessarily imply rising volumes, but it will make sure that you are provided with more timely information and analyses. Issues 1 and 3 will contain studies only, whereas issues 2 and 4 will include Recent Economic Developments and the Euro Survey, apart from one or two studies. We will continue to release the Recent Economic Developments section on our website at ceec.oenb.at a few weeks before FEEI is published, mainly to make it available closer to the cutoff date for data.

As a reminder and to keep you informed about papers published and about ongoing events, we will circulate the relaunched ceec.newsletter on a regular basis. If you are interested in receiving this newsletter, please send your e-mail address to

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Recent Economic Developments

Developments in Selected Countries^{1,2,3}

1 International Financial Turmoil Puts a Brake on the Dynamic Catching-up Process of CESEE

Growth in CESEE expected to moderate considerably in the coming months

The turmoil on international financial markets has intensified over the past weeks; the situation remains volatile, but various policy measures taken by central banks and governments around the world aim at stabilizing the situation.⁴ While emerging markets were hit less hard than advanced economies for a prolonged period after the outbreak of the crisis in mid-2007, financial spillovers to this country group have increased recently. Together with the moderation in world economic activity, this development has contributed to a substantial worsening of the international economic environment for the CESEE countries covered in this report. In addition, the situation is characterized by a high degree of uncertainty surrounding current economic and financial conditions.

Up to the first half of 2008, however, the international financial turmoil had almost no direct impact on real economic developments in CESEE, as real growth came in at 6.5% year on year on average. Somewhat less favorable developments in external demand (resulting partly from lower world as well as euro area demand, especially in the second quarter of 2008) were offset to a considerable extent by a still robust performance of domestic variables. However, along with global output, growth is expected to moderate in most countries over the coming quarters (see box 2).

Inflation still elevated in most countries but on the decline owing to falling energy prices and slowing growth

Inflation has only recently started to come down somewhat from the record levels observed in the course of the year, mainly due to decreasing energy prices. Domestic inflation pressures, however, remain strong in many countries, as tightening labor markets lead to increasing wages and rising unit labor costs (ULC). The expected moderation in output growth, however, will have a certain dampening effect on prices.

Adverse impacts of the international turbulence on financial markets in the region were more pronounced than those on the real economy. Especially the SEE-2, Croatia, and Turkey (i.e. countries with stronger external and/or internal imbalances) were hit more strongly, while countries at more advanced stages of transition (notably the CEE-5) generally experienced less distortion in their financial markets (see box 1).

¹ Compiled by Antje Hildebrandt and Josef Schreiner with input from Stephan Barisitz, Markus Eller, Johann Elsingner, Sándor Gardó, Thomas Reiningner, Tomáš Slačik, Zoltan Walko, and Julia Wörz.

² Cutoff date: end-October 2008. This report focuses primarily on data releases and developments from mid-April 2008 up to the cutoff date for data.

³ This report covers Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia, as well as Croatia, Turkey, and Russia. The Central, Eastern and Southeastern (CESEE) EU Member States – Bulgaria, the Czech Republic, Hungary, Poland, Romania, Slovakia and Slovenia – are referred to as the CESEE EU Member States throughout the report. Additionally, the CEE-5 group comprises the Czech Republic, Hungary, Poland, Slovakia, and Slovenia, while SEE-2 refers to Bulgaria and Romania. Croatia and Turkey are referred to as EU candidate countries.

⁴ Central banks and governments in the countries under observation have responded to the ongoing turmoil by taking numerous policy measures, including verbal interventions stressing banking system stability, raising deposit insurance levels (to at least EUR 50,000 in CESEE, to EUR 56,000 in Croatia), supporting interbank liquidity via foreign exchange swaps (Hungary, Poland), repo auctions (Czech Republic) and guarantees (Russia, Bulgaria), lowering minimum reserve requirements (Croatia, Russia, Bulgaria), foreign exchange market interventions (Russia) and/or measures to ease the situation on government bond markets (reducing offer volumes in the Czech Republic and Hungary, buybacks in Bulgaria) (see also Financial Stability Report 16).

Hungary is somewhat of an outlier from this pattern, as financial variables have deteriorated sharply in recent weeks. Even though the country reports one of the highest levels of gross external debt in the region, macroeconomic fundamentals are gradually recovering from a far-reaching fiscal consolidation package that was implemented in mid-2006. The current turmoil, therefore, seems to be largely based on a deterioration of international investor sentiment. Against this background and considering the prevailing nervousness on international markets, contagion risks in the region remain pronounced, as exemplified also by the recent pressure on other Central European currencies (e.g. the Czech koruna and the Polish złoty). Despite its current account surplus and its low level of gross external debt, also Russia was hit strongly by the international financial crisis, given higher political uncertainties in the context of the conflict in Georgia and decreasing energy and commodities prices on world markets that led to capital outflows and stock market turbulence.

The general risk profile of the region has clearly deteriorated since the last report. Especially countries with an unbalanced structure of economic growth (SEE-2, Russia) or high external imbalances and high external debt ratios (Bulgaria and Croatia) remain vulnerable to shocks. Risks have also risen in Romania where overheating has intensified. In the CEE-5, growth is more balanced, and both Slovakia and Slovenia are benefiting from the momentum caused by euro area entry. Overall, growth is moderating in the countries covered in this report but is expected to remain relatively solid compared with other parts of the world, unless global financial turmoil leads to a major recession in the euro area or capital flows to the region decelerate markedly. In some countries (Romania and Bulgaria in particular), an orderly moderation of GDP growth would in fact be welcome with a view to moving to a more sustainable growth path. Generally, the swift catching-up process of the past years will most probably lose speed or even come to a halt in some countries.

The global market turmoil has led to a repricing of risk that is more pronounced for countries with large current account deficits (i.e. Bulgaria, Romania, and Croatia, but also in Hungary as explained above). More expensive and shorter-term external financing and, in the worst case, quantitative constraints on the access to external finance could ultimately lead to a vicious circle as regards external sustainability. Developments in the first half of 2008 show that the financing structure of current account imbalances has already worsened (rising shares of short-term financing and, in some countries, also falling FDI shares). The financing of external deficits will become increasingly challenging because of several factors: the slowdown in world economic activity and the associated decrease of FDI flows to the region, and international investors becoming more reluctant to lend funds to emerging markets with high internal and/or external imbalances. The situation could be further aggravated by banks facing rising funding costs, higher uncertainty regarding access to (i) large-scale foreign funding for domestic banks and (ii) cross-border credits for corporates, as well as risks that Western European parent banks could withdraw liquidity from CESEE subsidiaries to ease liquidity tensions in home markets or at the group level.

Repricing of risk more pronounced for countries with large current account deficits

2 Overview of Main Developments

2.1 No Major Growth Slowdown in the First Half of 2008

Solid growth in the first half of the year but outlook deteriorating

The deceleration of economic activity observed in major economies in the course of the international financial crisis hardly affected CESEE countries in the first half of 2008. The outlook for the coming quarters, however, is increasingly clouded. Real GDP growth came in at 6.5% (year on year) on average in the first half of 2008, which represents only a minor slowdown compared with full-year 2007 (6.6%). Looking at the quarterly profile of GDP, however, average growth decelerated more markedly from 7.3% in the first quarter to 5.8% in the second quarter of 2008. This decline was mainly caused by a slump in economic activity in Turkey (which represents roughly 20% of the region's aggregate economic output), where capital formation moderated substantially in the context of elevated political uncertainty. The international financial turmoil impacted on the countries under review mainly via a worsened external environment which led to lower foreign demand growth, a continued tightening of financing conditions, and, in some countries, weakening asset markets. The continued robust development of domestic demand, however, has cushioned those adverse effects to a great extent. So far, the only countries in the region to be hit more strongly were the Baltics, where unfavorable global developments spurred an incipient adjustment of imbalances after a long boom period. According to recent forecasts, however, growth is expected to moderate substantially in the whole region.

Growth trends differ across CESEE

Different growth trends could be observed across CESEE, with the CEE-5 and Croatia lagging behind their SEE peers. In the CEE-5, growth decelerated more strongly than on average in the countries under review, dropping from 6% in 2007 to 5.4% in the first half of 2008. The most important factor in this aggregate decline was weaker economic activity in the Czech Republic, where fiscal consolidation weighed on GDP dynamics. Growth also slowed down in Slovakia (albeit from a very high level), owing to a less favorable development of the external sector. A somewhat higher growth rate could be observed only in Hungary, which is gradually recovering from a far-reaching fiscal consolidation package implemented in mid-2006. The SEE-2 was the only country group in the region

Table 1

Gross Domestic Product (Real)

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|----------------|---------------------------|------|------|---------|---------|---------|---------|---------|---------|
| | <i>Annual change in %</i> | | | | | | | | |
| Slovenia | 4.1 | 5.7 | 6.1 | 7.2 | 6.0 | 6.4 | 4.7 | 5.4 | 5.5 |
| Bulgaria | 6.2 | 6.3 | 6.2 | 5.5 | 7.3 | 4.9 | 6.9 | 7.1 | 7.1 |
| Czech Republic | 6.3 | 6.8 | 6.6 | 6.6 | 6.6 | 6.4 | 6.6 | 5.3 | 4.5 |
| Hungary | 4.1 | 3.9 | 1.3 | 2.7 | 1.2 | 0.9 | 0.8 | 1.7 | 2.1 |
| Poland | 3.6 | 6.2 | 6.5 | 7.2 | 6.4 | 6.4 | 6.1 | 6.3 | 6.0 |
| Romania | 4.2 | 7.9 | 6.1 | 6.1 | 5.7 | 5.7 | 6.6 | 8.2 | 9.3 |
| Slovakia | 6.6 | 8.5 | 10.4 | 8.3 | 9.3 | 9.4 | 14.3 | 8.7 | 7.6 |
| Croatia | 4.3 | 4.8 | 5.6 | 7.0 | 6.6 | 5.1 | 3.7 | 4.3 | 3.4 |
| Turkey | 8.4 | 6.9 | 4.6 | 8.1 | 4.1 | 3.3 | 3.6 | 6.7 | 1.9 |
| Russia | 6.4 | 7.3 | 8.1 | 7.4 | 8.0 | 7.3 | 9.5 | 8.5 | 7.5 |
| Euro area | 1.7 | 2.8 | 2.6 | 3.1 | 2.6 | 2.7 | 2.2 | 1.7 | 1.9 |

Source: Eurostat, national statistical offices, wiiw.

where growth picked up substantially in the first half of 2008, mainly on the back of soaring domestic demand amid continued high credit expansion and rising wages. The Croatian economy lost steam due to a slowdown in domestic consumption. While Turkey registered soft growth in the second quarter of 2008, no downturn could be observed in the first half of the year because of favorable developments in the first quarter of the year. Russia broadly sustained the dynamic development observed in 2007.

2.2 Growth Still Driven by Domestic Demand, Supported by (so far) Favorable Labor Markets

Domestic demand continued to be the driver of economic activity in the region. In the first half of 2008, private consumption growth remained broadly unchanged in most countries compared with 2007. In Bulgaria, Romania and Hungary, however, it edged up higher, while in the Czech Republic it was dampened by an increase in administered prices and indirect taxes. In Romania, Turkey and Russia, private consumption growth outpaced total GDP growth, thus indicating increased demand pressures. Public consumption was of rather minor importance throughout the region, dampening growth somewhat in Hungary, Poland and Bulgaria.

Besides a still robust development of credit to households in the first half of 2008, consumption growth benefited from benign labor market developments and rising wages. Unemployment rates throughout the region declined to the historically low level of 7.1% on average in the second quarter – and thus below the euro area average (7.3%) – with the Czech Republic and Slovenia reporting particularly low levels. Despite increasing labor demand, however, especially Slovakia and Croatia still show very high unemployment rates at 10.1% and 13.2%, respectively. Hungary was the only country where unemployment increased within the observation period, owing mainly to weak general economic dynamics. Employment also improved noticeably: While employment rates were generally on an upward path in the region (with the exception of Hungary), they did not reach the levels observed in the euro area.

Growth of gross fixed capital formation (GFCF) decreased in the region, except in Romania and Croatia where it developed more swiftly than in 2007. However, GFCF growth still outpaced consumption growth in all countries but Hungary and Slovakia. During the first half of 2008, investment demand was afflicted by thinner export order books and recently declining industrial capacity utilization, mainly in line with lower international demand and industrial confidence. In many countries, FDI inflows were also below the levels observed in 2007.

In the first half of 2008, the external sector's contribution to growth was substantial only in Hungary and the Czech Republic. While growth contributions were broadly neutral in the other CEE-5, Bulgaria, and Turkey, net exports had a considerable dampening effect on growth in Romania, Croatia, and Russia. Looking at growth dynamics, external sector developments improved in the Czech Republic and Bulgaria, while they deteriorated sharply only in Croatia. Export growth decelerated in most of the CEE-5 (particularly Slovakia and Slovenia), Croatia and Turkey, whereas it gained speed in Bulgaria, Romania, Russia, but also in Poland. Import growth declined in all countries but Romania and Croatia.

GFCF growth on the decline but still above consumption growth in most CESEE countries

External sector developments were influenced by lower international demand (the IMF, for instance, projects imports by advanced economies to more than halve in 2008 compared with 2007), currency appreciation in the CEE-5 (except Hungary) and currency depreciation in Romania and Russia.

2.3 High Commodity Prices and Buoyant Activity in Many Countries Add to Inflation Pressures until Mid-Year

Brisk economic activity in the past quarters and tightening labor markets coupled with increasing labor shortages in some CESEE countries and sectors, especially with regard to skilled labor, resulted in upward pressure on wages.

Nominal wages on
the rise across
CESEE

Growth rates of compensation per employee climbed in all CESEE countries (with the exception of Hungary), reaching double-digit levels in Poland and Slovakia and more than 20% in Bulgaria and Romania. Owing to rising prices, however, real wages actually grew more slowly in the CEE-5 than in 2007 and more or less stagnated in the Czech Republic, in Hungary and in Slovenia by the second quarter of 2008. Also in the SEE-2, price increases cut markedly into nominal wages. In Romania, however, real wages still rose by more than 15%. Productivity developments in the CESEE region were mixed, but in no country sufficiently high to fully offset wage increases. ULC growth in the whole economy increased in all countries (except Hungary) and reached particularly high levels in Bulgaria and Romania (17.7% and 15.3%, respectively), where it also clearly outpaced HICP inflation.

Wage and ULC developments together with rising food and energy prices throughout most of the observation period contributed to increasing inflation pressures until August, when they started to moderate gradually.

Price increases across the region reached levels of 6% and above in most countries, with Russia, Bulgaria and Turkey posting double-digit inflation rates. The situation was aggravated by an increase in administered prices and indirect taxes in several countries, e.g. Bulgaria, the Czech Republic and Poland. In Romania and Russia, the substantial and lasting currency depreciation also had a negative effect on inflation.

Table 2

Consumer Price Index (here: HICP)

| | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 | Q3 2008 |
|----------------------|--------------------|------|---------|---------|---------|---------|---------|---------|---------|
| | Annual change in % | | | | | | | | |
| Slovenia | 2.5 | 3.8 | 2.6 | 3.2 | 3.7 | 5.5 | 6.5 | 6.4 | 6.2 |
| Bulgaria | 7.4 | 7.6 | 5.3 | 4.7 | 9.0 | 11.2 | 12.4 | 14.0 | 12.5 |
| Czech Republic | 2.1 | 3.0 | 1.7 | 2.6 | 2.7 | 4.9 | 7.6 | 6.7 | 6.5 |
| Hungary | 4.0 | 7.9 | 8.8 | 8.5 | 7.3 | 7.1 | 6.9 | 6.8 | 6.3 |
| Poland | 1.3 | 2.6 | 2.0 | 2.3 | 2.4 | 3.7 | 4.5 | 4.3 | 4.4 |
| Romania | 6.6 | 4.9 | 3.9 | 3.9 | 5.1 | 6.8 | 8.0 | 8.6 | 8.2 |
| Slovakia | 4.3 | 1.9 | 2.1 | 1.7 | 1.4 | 2.4 | 3.4 | 4.0 | 4.5 |
| Croatia ¹ | 3.2 | 2.8 | 1.5 | 2.1 | 2.9 | 4.9 | 6.0 | 6.6 | 7.4 |
| Turkey | 9.3 | 8.8 | 10.3 | 9.5 | 7.1 | 8.2 | 8.8 | 10.3 | 11.7 |
| Russia ¹ | 9.7 | 9.0 | 7.8 | 7.9 | 8.9 | 11.5 | 12.9 | 14.9 | 15.1 |
| Euro area | 2.2 | 2.1 | 1.9 | 1.9 | 1.9 | 2.9 | 3.3 | 3.6 | 3.8 |

Source: Eurostat, national statistical offices, wiiv.

¹ CPI.

In conjunction with declining oil and food prices on world markets, however, inflation started to decrease gradually in August. This was also helped by a positive base effect after strong oil price increases beginning in autumn 2007. Core inflation showed an upward trend in all countries, suggesting that commodity price shocks exacerbated existing overheating pressures.

Inflation easing off somewhat most recently

In response to rising prices, central banks tightened monetary policy in Hungary (by 50 basis points in two steps)⁵, Poland (by 25 basis points), Romania (by 75 basis points in three steps), Turkey (by 150 basis points in three steps) and Russia (by 75 basis points in three steps). Only Česká národní banka lowered its key interest rate by 25 basis points in an attempt to counteract currency appreciation. Apart from the Czech Republic, monetary conditions were tightened further in Poland and Slovakia because of currency appreciation. Inflation expectations started to decline somewhat recently, but still remain at elevated levels. The risk of second-round effects is therefore still eminent. The expected moderation in output growth, however, will have a certain dampening effect on prices.

2.4 Mixed Trends in the Development of Current and Capital Account Positions

In the first half of 2008, developments of the combined current and capital account were mixed compared with the same period in 2007, with no strong regional trends. The gaps increased substantially in Slovenia, Croatia, and to some extent also in Slovakia and Bulgaria. The deteriorations were mainly related to the goods and services balance, where weaker international demand coupled with currency appreciation in some countries hampered export growth, and adverse price developments led to a worsening in the terms of trade. Repatriations of profits also exerted some stronger drag on the income balances. Stronger improvements could be observed in Hungary, Romania, and Russia. While the lower deficit in Hungary

Table 3

Current Account Developments

| | Goods and Services Balance | | Income Balance | | Combined Current and Capital Account | | Basic Balance | |
|----------------|----------------------------|---------|----------------|---------|--------------------------------------|---------|---------------|---------|
| | H1 2007 | H1 2008 | H1 2007 | H1 2008 | H1 2007 | H1 2008 | H1 2007 | H1 2008 |
| | % of GDP | | | | | | | |
| Slovenia | -0.5 | -1.6 | -1.9 | -2.5 | -3.1 | -5.7 | -3.9 | -5.1 |
| Bulgaria | -23.6 | -27.1 | -0.7 | -1.2 | -22.6 | -23.8 | -3.0 | -12.9 |
| Czech Republic | 5.9 | 7.2 | -6.3 | -8.9 | -0.6 | 0.0 | 3.2 | 3.1 |
| Hungary | 1.2 | 2.0 | -7.9 | -7.6 | -6.7 | -5.0 | -7.9 | -0.7 |
| Poland | -2.9 | -3.5 | -3.4 | -3.4 | -3.5 | -3.7 | 0.3 | -1.8 |
| Romania | -16.4 | -15.2 | -5.3 | -4.8 | -16.1 | -14.4 | -8.7 | -5.3 |
| Slovakia | 0.0 | -1.1 | -3.0 | -4.2 | -3.2 | -5.0 | -0.5 | -3.8 |
| Croatia | -17.2 | -19.0 | -4.8 | -5.4 | -19.0 | -21.7 | -6.5 | -12.5 |
| Turkey | -5.7 | -6.3 | -1.2 | -1.2 | -6.6 | -7.3 | -2.8 | -5.7 |
| Russia | 9.4 | 11.4 | -2.7 | -3.3 | 6.5 | 8.0 | 6.8 | 9.4 |

Source: Eurostat, national central banks.

⁵ On October 22, 2008, Magyar Nemzeti Bank hiked interest rates by 300 basis points when the gradual weakening of the forint turned to a slump during the first three weeks of October.

was mainly caused by an improvement in the capital account due to higher inflows of EU transfers, the better outcome in Romania and in Russia is attributable to a positive development of the goods and services balance. Russia experienced a pronounced improvement in its terms of trade due to high commodity prices until July, while in Romania currency depreciation supported export growth.

2.5 External Financing Needs Remain High in Southeastern Europe

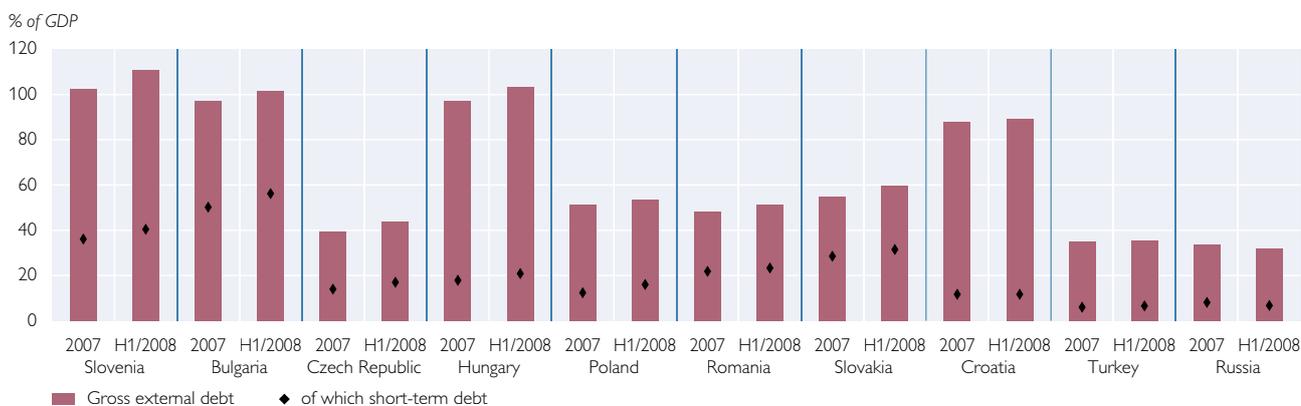
Generally, current account deficits remained at manageable levels in the CEE-5 in conformity to their more advanced stage of the convergence process. External financing needs, however, are pronounced in the SEE-2, Croatia, and Turkey.

Large variation in current account developments continues

In the Czech Republic, Hungary and Poland, basic balances (i.e. the combined current and capital account balance plus net FDI) as an indicator of external financing requirements are actually in or close to surplus. In Slovenia and Slovakia, they stood at somewhat more elevated levels. In the SEE-2, combined current and capital account deficits were substantially higher than in the CEE-5, with an even increasing trend in Bulgaria. Despite substantial net FDI inflows, also the basic balances were deeply in the red and deteriorated further in the case of Bulgaria especially due to lower net FDI inflows (predominately to the construction and real estate sector) in the first half of 2008. The same is true for Croatia, however, with the caveat that the Croatian current account shows a high degree of seasonality, with the summer months usually being positively influenced by tourism. In Turkey, external financing needs increased owing to some deterioration of the combined current and capital account and especially lower FDI inflows. Russia remains the only country with a sizeable surplus both in the combined current and capital account and in the basic balance. In the context of the current growth moderation in major Western economies, FDI flows to the region will potentially decrease in the near future, which could make it increasingly difficult to finance large current account deficits.

Chart 1

Gross External Debt



Source: Eurostat, national central banks.

2.6 Higher Ratio of Short-Term Debt Coupled with Rising Gross External Debt Levels

In the first half of 2008, gross foreign debt in the whole economy increased throughout most of the countries under review (apart from Russia), and also short-term debt trended higher. The increases in external debt levels were most pronounced in the CEE-5, ranging between 2.1% of GDP in Poland and 8.3% of GDP in Slovenia, but they were also high in Bulgaria (4.1% of GDP) and Romania (3.3% of GDP). The development was driven by a rise in (mostly short-term) indebtedness of banks in most countries with the exception of Poland, where borrowing by the corporate sector played the dominant role. While for most countries higher external indebtedness was less of a problem given their comparatively low debt levels, debt stayed at around 90% of GDP in Croatia and at above 100% of GDP in Hungary, Slovenia, and Bulgaria. Short-term debt as a percentage of total gross external debt increased in most countries (by between 0.9 percentage points in Slovakia and 5.8 percentage points in Poland), with the exception of Romania and Croatia (where it stayed constant) as well as Russia (where it decreased by 2.9%). Especially high levels were reported for Bulgaria and Slovakia (over 50%), Romania (around 45%) and the Czech Republic and Slovenia (around 35%).

2.7 External Competitiveness Weakening in Most Countries

A deterioration of international competitiveness is one of the potential driving factors for the increase in the current account deficits of the SEE-2 and Turkey.

Growth of ULC in industry accelerated in all CEE-5 countries in the first half of 2008. Looking at ULC measured in euro, this development was even more pronounced in the Czech Republic, Poland, and Slovakia owing to substantial currency appreciation. In all countries of the region, higher ULC growth can be related to both weaker productivity developments and accelerating wage growth. In Bulgaria, growth of ULC in industry picked up substantially in the first half of 2008, reaching around 20% year on year. Again, this can be linked to higher wage growth as well as weaker productivity. Although no acceleration could be observed in Romania, ULC dynamics remained at elevated levels at around 11% year on year, but were dampened by currency depreciation, as industrial ULC measured in euro registered zero growth. In Turkey and Russia, no major changes in ULC dynamics could be observed compared with 2007, but ULC growth remained high especially in Russia. Currency depreciation against the euro, however, dampened negative consequences for competitiveness (at least vis-à-vis the euro area) in both countries. Croatia was the only country in the region where productivity growth accelerated in the first half of 2008. This led to somewhat slower industrial ULC growth than in 2007.

In the euro area, industrial ULC growth also picked up somewhat, although the increase was less pronounced than in the CEE-5 and in Bulgaria. In connection with an appreciation of the local currencies of Poland, Slovakia, and the Czech Republic, this development led to some appreciation of the real exchange rate deflated by industrial ULC against the euro in the above-named countries. A lasting weakness of the Romanian leu coupled with a decreasing ULC differential contributed to some real depreciation in the country. The same is true for Russia and Turkey. Despite deteriorating competitiveness indicators, no decline in export market shares could be observed in most countries until the first quarter of 2008.

High nominal ULC growth in industry in all countries except Turkey and Croatia

Table 4

Wages, Productivity and Unit Labor Cost

| | Nominal Wages in Industry | | | | Productivity in Industry | | | | Unit Labor Cost in Industry (in local currency) | | | |
|----------------|---------------------------|------|---------|---------|--------------------------|------|---------|---------|--|------|---------|---------|
| | 2006 | 2007 | Q1 2008 | Q2 2008 | 2006 | 2007 | Q1 2008 | Q2 2008 | 2006 | 2007 | Q1 2008 | Q2 2008 |
| | <i>Annual change in %</i> | | | | | | | | | | | |
| Slovenia | 5.5 | 6.7 | 8.3 | 9.7 | 7.9 | 5.5 | 1.5 | 3.5 | -2.3 | 1.1 | 6.7 | 6.0 |
| Bulgaria | 10.8 | 20.1 | 25.0 | 24.0 | 8.2 | 9.5 | 3.1 | 5.3 | 2.5 | 9.7 | 21.3 | 17.8 |
| Czech Republic | 6.1 | 8.6 | 11.6 | 8.5 | 9.4 | 6.6 | 3.4 | 4.5 | -3.0 | 1.8 | 7.9 | 3.9 |
| Hungary | 8.6 | 8.4 | 7.9 | 7.3 | 11.5 | 9.3 | 7.2 | 4.6 | -2.6 | -0.8 | 0.6 | 2.5 |
| Poland | 5.2 | 8.7 | 10.4 | 11.2 | 9.5 | 6.0 | 5.1 | 5.1 | -4.0 | 2.6 | 5.0 | 5.8 |
| Romania | 15.7 | 21.6 | 18.5 | 24.5 | 11.3 | 9.5 | 8.8 | 10.6 | 4.0 | 11.0 | 9.0 | 12.6 |
| Slovakia | 6.7 | 6.4 | 8.4 | 8.7 | 11.3 | 10.0 | 4.4 | 4.5 | -4.1 | -3.3 | 3.9 | 4.0 |
| Croatia | 7.5 | 5.5 | 7.6 | 7.2 | 2.7 | 2.5 | 4.7 | 5.2 | 4.7 | 3.0 | 2.7 | 1.9 |
| Turkey | 11.5 | 9.4 | 8.9 | 10.3 | 6.7 | 2.6 | 3.7 | 2.4 | 4.5 | 6.6 | 5.0 | 7.7 |
| Russia | 21.4 | 26.0 | 27.6 | 28.1 | 10.1 | 4.7 | 5.9 | 5.6 | 10.3 | 20.4 | 20.5 | 21.3 |
| Euro area | 3.5 | 2.8 | 3.5 | 3.2 | 4.1 | 3.2 | 2.2 | 0.8 | -0.6 | -0.4 | 1.3 | 2.4 |

Source: ECB, Eurostat, national statistical offices, wiiw.

Table 4 continued

Wages, Productivity and Unit Labor Cost

| | Euro per Local Currency (annual average) | | | | Unit Labor Cost in Industry (in euro) | | | |
|----------------|--|------|---------|---------|---------------------------------------|------|---------|---------|
| | 2006 | 2007 | Q1 2008 | Q2 2008 | 2006 | 2007 | Q1 2008 | Q2 2008 |
| | <i>Annual change in %</i> | | | | | | | |
| Slovenia | -0.0 | -0.0 | 0.0 | 0.0 | -2.3 | 1.1 | 6.7 | 6.0 |
| Bulgaria | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 9.7 | 21.3 | 17.8 |
| Czech Republic | 5.1 | 2.1 | 9.7 | 13.9 | 1.9 | 3.9 | 18.4 | 18.3 |
| Hungary | -6.1 | 5.1 | -2.7 | 0.1 | -8.6 | 4.3 | -2.1 | 2.6 |
| Poland | 3.2 | 3.0 | 8.7 | 11.5 | -0.8 | 5.6 | 14.2 | 18.1 |
| Romania | 2.7 | 5.7 | -8.3 | -10.2 | 6.8 | 17.4 | -0.1 | 1.1 |
| Slovakia | 3.7 | 10.2 | 3.9 | 7.5 | -0.6 | 6.6 | 7.9 | 11.8 |
| Croatia | 1.1 | -0.2 | 1.1 | 1.3 | 5.8 | 2.8 | 3.9 | 3.2 |
| Turkey | -7.3 | 1.3 | 2.5 | -8.6 | -3.1 | 8.0 | 7.6 | -1.5 |
| Russia | 3.2 | -2.6 | -5.1 | -5.6 | 13.9 | 17.3 | 14.3 | 14.5 |
| Euro area | .. | .. | .. | .. | -0.6 | -0.4 | 1.3 | 2.4 |

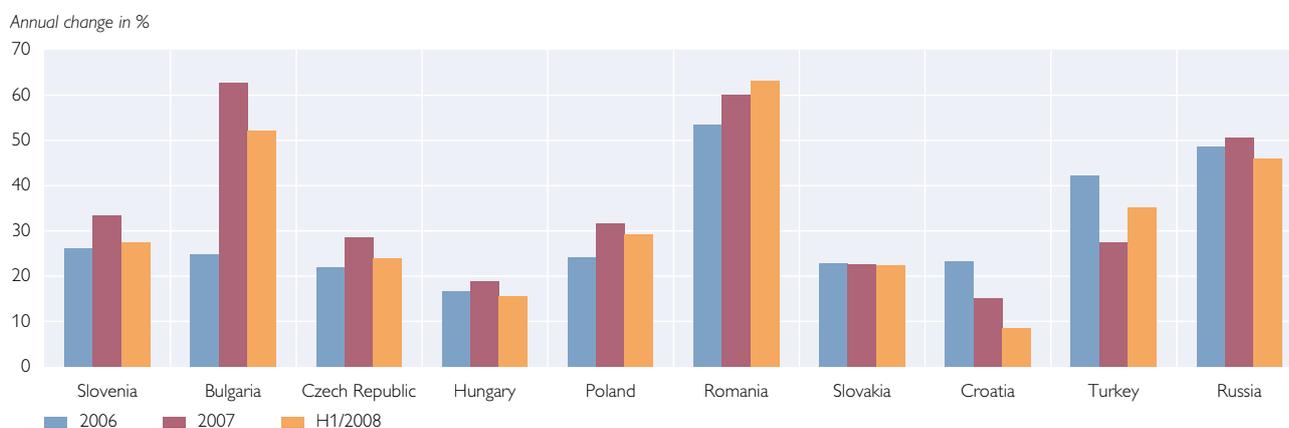
Source: ECB, Eurostat, national statistical offices, wiiw.

2.8 Strong Credit Expansion in the SEE-2 and Russia until June with Recent Moderation in All Countries

While private sector credit expansion in the CEE-5 stayed at levels roughly in line with the historical experience of successful catching-up countries in the second half of the 20th century, stronger increases could be observed in the SEE-2 and Russia.

Chart 2

Domestic Credit to Nonbanks and the Nongovernment Sector



Source: Eurostat, national central banks.

In the first half of 2008, private sector credit grew at rates of around 20% to 30% year on year in the Czech Republic, Poland, Slovenia and Slovakia, coming down somewhat from the levels observed in 2007. Hungary and especially Croatia posted the lowest credit expansion rates. While in Hungary this was mainly due to decelerating growth of credit to the corporate sector in the second quarter of 2008, in line with a deterioration in industrial confidence in the context of weak economic dynamics, in Croatia decisive measures taken by the national authorities contributed to a moderation of credit expansion. In the SEE-2, credit growth remained high at over 50% in Bulgaria and over 60% in Romania and even accelerated in the latter country. The acceleration in Turkey represents somewhat of a normalization after extraordinarily slow credit growth in 2007. At around 50%, credit growth remained high in Russia. Latest available data on credit developments indicate that the deceleration of credit expansion (which was already observable in the second quarter in many countries) gained speed in recent months. This is presumably related to tightening credit standards and the increasingly tight liquidity situation since mid-September, which will probably further curb credit growth in the months to come.

Credit expansion during the observation period still dynamic in most countries

2.9 Foreign Currency Lending still High in Some Countries, but Signs of Moderation in Recent Weeks

Foreign currency lending remains widespread in Hungary, Croatia and the SEE-2, but no increase in the share of foreign currency loans in total loans could be observed in most countries.

In Slovakia, the share of foreign currency loans in total lending decreased more sharply than in the other countries, possibly due to the planned introduction of the euro. In the other CEE-5 as well as in Croatia and Russia, the currency composition of private credit remained broadly unchanged in the first half of 2008. The foreign currency share, however, increased in Romania and above all in Bulgaria. Generally, foreign currency loans were especially widespread in Croatia, Bulgaria, Romania, and Hungary, where they made up substantially more than

50% of total private sector credit. In the other countries, these loans remained at more moderate levels at less than 25%.

High foreign currency exposure increases the risk of adverse balance sheet effects in the case of currency depreciation. Such risks are especially pronounced for households, as they are usually not hedged against adverse exchange rate movements. Household exposure to foreign currency credit is particularly strong in Hungary and Romania (more than 50% of total credit to households), but also in Poland and Bulgaria (29.8% and 24%, respectively). Tightening liquidity conditions in recent weeks presumably also put a brake on foreign currency lending, in a context of a general moderation of credit dynamics (some subsidiaries of Western European banks in CESEE e.g. announced to curtail foreign currency lending in the region).

2.10 Credit Expansion only partly Financed by Deposits

Domestic deposit growth (measured as the year-on-year change in the deposit stock as a percentage of GDP) could not keep up with domestic credit expansion in any country under review, which contributed to a decline in net foreign assets in the first half of 2008.

Furthermore, deposit growth decelerated in several countries including the Czech Republic, Slovakia, Bulgaria, Croatia, and Russia. Subsequently, net foreign assets declined throughout the whole region (especially in Bulgaria, Romania, and Slovenia), with the exception of Croatia, partly at faster rates than observed in 2007. For financing credit expansion, other assets played some role only in Slovakia (mainly capital and reserves) and Hungary (mainly debt securities). In the first half of 2008, banks' reliance on net foreign liabilities was rather pronounced in most countries (ranging between -9.6% of GDP in Slovakia and -21% in Slovenia), with the exception of Poland and the Czech Republic, indicating that up to the end of the second quarter of 2008, banks in the countries under review apparently did not face difficulties in obtaining financing from abroad, a situation which has most probably changed in recent weeks.

High credit growth is an essentially positive element of the catching-up process, as it implies financial deepening. However, this does not mean that any credit growth rate is appropriate. In countries with very high credit growth rates, it is advisable that national authorities together with the banking sector (and their supervisory partner authorities in the home countries of foreign-owned banks) take decisive measures to dampen credit growth. The challenge is to tighten credit standards even further (and to refrain from circumvention activities) on the one hand, while on the other hand refraining from overreacting by cutting limits and stopping credit expansion entirely. More generally, the banking sector has to continue its efforts to improve risk and liquidity management.

The ratio of the domestic private sector credit stock to GDP in CESEE remains well below the euro area average and mostly also below estimated equilibrium ratios. To a large extent, this reflects lower GDP per capita levels (at PPP). Latest estimates⁶ showed that private sector credit levels in Bulgaria and Croatia are

⁶ Eller, M., P. Backé, B. Égert, and T. Zumer. 2008. Paper presented at the 11th Conference of the ECB-CFS Research Network on The Market for Retail Financial Services: Development, Integration, and Economic Effects, that took place in Prague on October 20 and 21, 2008.

Net foreign assets of the banking sector declining in all countries except Croatia

Ratio of CESEE countries' private sector credit stock to GDP roughly in line with estimated equilibrium ranges

already well within the estimated equilibrium range by the first quarter of 2008, while private sector credit levels in the other countries reviewed continued to be in the lower part of the equilibrium range (Hungary, Slovenia and Croatia) or even marginally below the equilibrium range (Czech Republic, Slovakia, Poland, and Romania). As the ratios are close to equilibrium in most CESEE countries, future credit growth will (have to) be more moderate, in line with further improvements in underlying fundamentals (catching-up, macrostability, financial sector development). The recent slowdown of credit growth in some CESEE countries seems to signal a shift toward a more sustainable path. At the current juncture, the policy challenge is to ensure that this process takes place in an orderly fashion, as a sudden credit crunch could put serious strain on the economies of the region.

2.11 Abrogation of Excessive Deficit Procedures in Several Countries

In June and July 2008, excessive deficit procedures (EDP) were abrogated for the Czech Republic, Poland, and Slovakia, as the excessive deficits were corrected. These countries had been under an EDP since May 2004. Thus, Hungary is the only CESEE country under an EDP at the moment. In the case of Romania, the European Commission published a recommendation on economic and budgetary policy in mid-June, advising the government to pursue a more prudent fiscal policy, as the current expansionary fiscal strategy entailed the risk of breaching the deficit threshold of 3% of GDP, which could trigger an EDP by the EU.

EDPs abrogated for the Czech Republic, Poland, and Slovakia

Box 1

Financial Market Developments in Central, Eastern and Southeastern Europe: Caught up in the Global Financial Market Turbulence

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.

Since the cutoff date for the last FEEI issue in April 2008, the global financial market turmoil that has been ongoing since mid-2007 has deepened and intensified markedly, especially starting from mid-September 2008. Risk propagation through international financial market linkages has become prominent. Until mid-September, CESEE financial markets weathered the turbulence relatively well, but were hit hard in the latest wave of market corrections, in some respects harder than other emerging market regions. However, developments were not homogeneous across CESEE, with countries and financial market segments being affected to different extents. On this note, countries in Central Europe (Czech Republic, Hungary, Poland, Slovakia) were hit less hard by the turmoil than those in Southeastern (Bulgaria, Croatia, Romania) or Eastern Europe (Russia).¹ In addition, countries with the largest economic imbalances and/or insufficient policy credibility were affected the most. The performance of different financial market indicators suggests that market participants increasingly consider country-specific signs of vulnerability. However, the case of Hungary shows that higher global risk aversion has also contributed to problems in countries where fundamentals have improved more recently but vulnerabilities are perceived to be high in the present context – even though in the past risks had been more pronounced and fundamentals much worse without triggering a distinct market reaction.

¹ Beyond the countries covered in this report, a noticeable impact of the financial turmoil was seen also in other CESEE countries: Ukraine was hit particularly hard by spillovers from the global financial turmoil, and the Baltic countries were not spared either (although developments within the Baltic region were not homogeneous).

With the exception of Romania, Russia, Hungary, and Turkey, money market spreads against the euro area remained broadly stable or even narrowed in the CESEE region over the review period (April 30, 2008, to October 28, 2008). Money market rates in the Czech Republic and Slovakia were below euro area levels over the whole period and even became increasingly negative in Slovakia. Spreads were up by a moderate 50 basis points on their end-April levels in Poland, also reflecting an interest rate hike by 25 basis points in June. By contrast, spreads widened markedly in Romania, up by some 650 basis points, driven by monetary tightening, rising risk premia given the country's high external imbalances and tight liquidity conditions ahead of payment deadlines for banks (minimum reserves) and foreign companies operating in Romania. Turkish money market spreads were 480 basis points up on their end-April level, in light of a sizeable rise in spreads due to monetary tightening and increased political noise. Similarly, Hungarian money market spreads were up by some 400 basis points on end-April, mainly driven by a policy rate hike by 300 basis points on October 22, 2008. Russian spreads widened by 730 basis points on account of banking stability concerns, while Croatian spreads recorded an increase of 210 basis points, partly owing to tighter mandatory reserve regulations starting with the new reserve requirement calculation period on October 9, 2008. Spreads remained fairly stable in Bulgaria over the review period after having increased strongly during the final quarter of 2007.

So far, the global financial turmoil has had a rather limited impact on interest rate spreads on local currency government bonds in CESEE against the euro area, although market pressures have increased recently. Global emerging market bond spreads widened on average by some 65 basis points over the review period (JPM GBI-EM). By contrast, spreads on Bulgarian and Slovak local currency-denominated government bonds were up only 27 and 40 basis points, respectively, on their end-April levels, while spreads on Czech and Romanian local currency-denominated government bonds both rose by some 70 basis points, largely in line with developments in global emerging markets. Somewhat more pronounced increases were observed in Poland (+110 basis points) and Russia (+161 basis points). Hungary (+410 basis points) and Turkey (+620 basis points) were the worst performers. Some countries even took measures to ease bond market tensions, mainly via central bank purchases of government bonds (from the market), reduction of offer volumes (e.g. Hungary) or buybacks (e.g. Bulgaria).

The spreads on Czech and Slovak euro-denominated sovereign eurobonds widened much less (+125 to 150 basis points) over the review period than the average emerging market spread (300 basis points, JPM Euro EMBI Global Index). But also Polish eurobond spreads grew less (+195 basis points) than the average. By contrast, spreads on Bulgarian, Hungarian and Croatian (euro-denominated) eurobonds recorded a pronounced increase by 325 to 370 basis points. Common to all countries is the significantly faster widening of euro-denominated sovereign eurobond spreads since the beginning of September 2008, with the most pronounced increases observed in Romania and Turkey. In addition to another fall in global investors' risk appetite and (outlook) downgrades by international rating agencies (e.g. Bulgaria, Hungary, Poland, Romania), rising domestic political and/or economic risks throughout the region have presumably played a role in this development. Finally, spreads on Russian U.S. dollar-denominated eurobonds widened by 650 basis points over the review period. This increase is much higher than that observed for the overall market (+540 basis points, JPM EMBI Global Index); the widening has been fairly pronounced since the beginning of September.

Despite temporary declines, sovereign 5-year credit default swap (CDS) spreads trended upward continuously over the review period, in particular from the beginning of September 2008. Czech and Slovak CDS spreads were affected the least, widening by 180 basis points and 170 basis points, respectively, which was most likely attributable to rating upgrades for both countries in early 2008, still relatively solid economic fundamentals, and the euro change-over in Slovakia. More prominent increases were observed in Poland (+210 basis points) as well as Hungary and Croatia (+360 basis points each), while CDS spreads rose particularly sharply (by over 400 basis points) in countries with more pronounced economic imbalances, i.e. Russia, Romania, Turkey, and Bulgaria. A comparison with other emerging economies leads

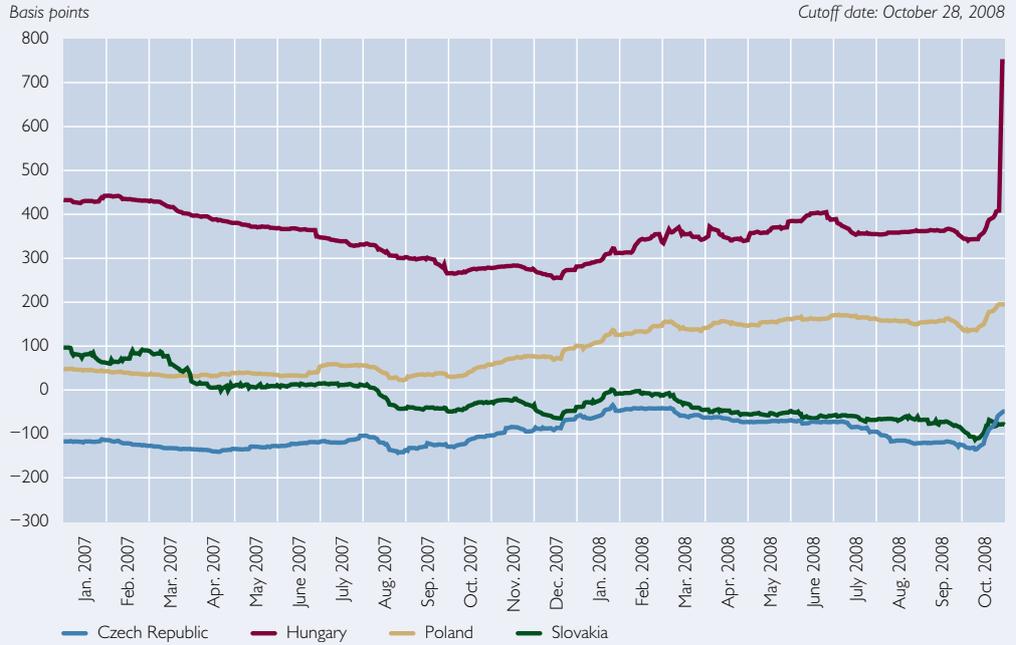
to no clear conclusion, as developments in some of them were better than in many CESEE countries (e.g. Hong Kong: +50 basis points), while those in others were in line with (e.g. Brazil: +376 basis points, Mexico: +380 basis points, South Africa: +400) or worse than (e.g. Indonesia: +755 basis points, Argentina: +3,100 basis points) those in the CESEE region.

Although CESEE stock markets tended to follow developments in global equity markets, until mid-September they weathered the turmoil fairly well by international comparison. Since then, however, CESEE equity markets have come under increased pressure as a result of deteriorating investor confidence toward emerging markets. In the period under review, the MSCI EEM index (covering the Czech Republic, Hungary, Poland, and Russia) dropped by 65%, while the DJ Industrial Average index fell by “only” 29% and the EURO STOXX index decreased by 41%. The CESEE region performed worse than other emerging market economies, as emerging Asia, Latin America, the Middle East and Africa all suffered somewhat smaller losses (around 50% on average). Developments within the CESEE region diverged considerably over the review period. The Slovak stock exchange remained practically unscathed in light of fairly positive investor sentiment ahead of the country’s euro area entry in 2009, whereas the downward correction was severe in Russia (–73%) given increased political noise, heightened liquidity pressures on the Russian interbank market, the related capital flight and a considerable drop in global commodity prices. Against the background of economic overheating and widening external imbalances, the Romanian, Bulgarian, and Czech stock indices lost some 55% to 60% over the period under review, while Hungary suffered equity price losses of some 50%. Stock markets in Poland, Turkey, and Croatia were affected the least (more in line with major European markets), recording a slump of 43% on average.

Most CESEE currencies were little affected by the international financial market turmoil over the review period, even though in recent weeks developments were characterized by high exchange rate volatility and increased regional downward pressures. The latest developments even prompted some central banks to intervene on foreign exchange markets (e.g. Croatia, Romania, Russia). All in all, only the Romanian leu, the Hungarian forint and the Polish złoty suffered higher losses (2%, 4% and 7%, respectively) against the euro since end-April 2008. In case of the latter two, however, this came after a prolonged period of strong appreciation. Particularly in Hungary, downward pressures on the currency eased following the abolition of the fluctuation band in late February 2008, despite high exchange rate volatility. By mid-September, the forint even strengthened above its pre-crisis level on the back of improved fundamentals, while also serving as a target currency for carry trades. However, the forint came increasingly under pressure thereafter, in particular given external financing concerns (that led to a financial package by the IMF, the EU, and the World Bank). The Russian ruble gained 7.2% versus the euro in the period under review, while it depreciated by 15% against the U.S. dollar, thus depreciating by 4.4% against its currency basket. All other CESEE currency quotes were stronger than at end-April. The Turkish lira, which appreciated considerably during the summer months on account of monetary tightening and waning political uncertainty, lost some of these exchange rate gains during the latest wave of the turmoil, but still quoted some 2.5% stronger than at the end of April. The Czech koruna and the Slovak koruna largely withstood regional downward pressures, as well. In the Czech Republic, this is most likely the result of the koruna’s capacity as a funding currency of carry trades and the ensuing unwinding of some of these trades during the market turmoil. In Slovakia, market expectations regarding a possible revaluation of the koruna’s ERM II central rate against the euro helped strengthen the currency sharply in the course of May 2008. Following the revaluation of the central rate by 17.6% with effect from May 29, the exchange rate remained close to the new central rate, which in early July also became the official conversion rate.

Chart 1a

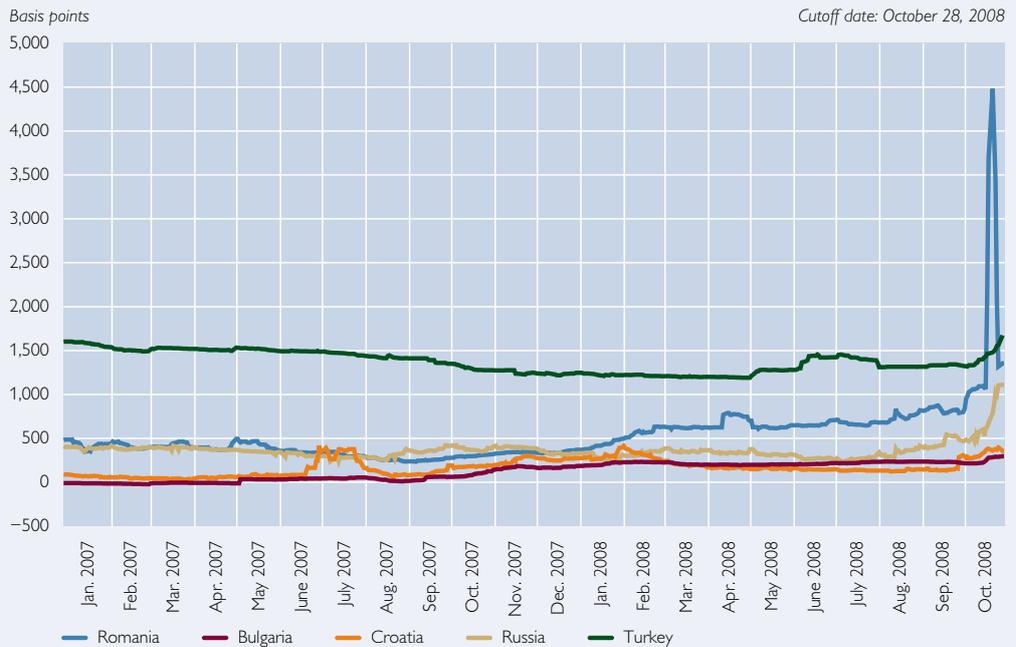
3-Month Money Market Spreads against the Euro Area



Source: Datastream, OeNB.

Chart 1b

3-Month Money Market Rate Spreads against the Euro Area



Source: Datastream, OeNB.

Chart 2a

Local Currency Government Bond Yield Spreads against the Euro Area

Country subindices of JPM GBI-EM, basis points

Cutoff date: October 28, 2008



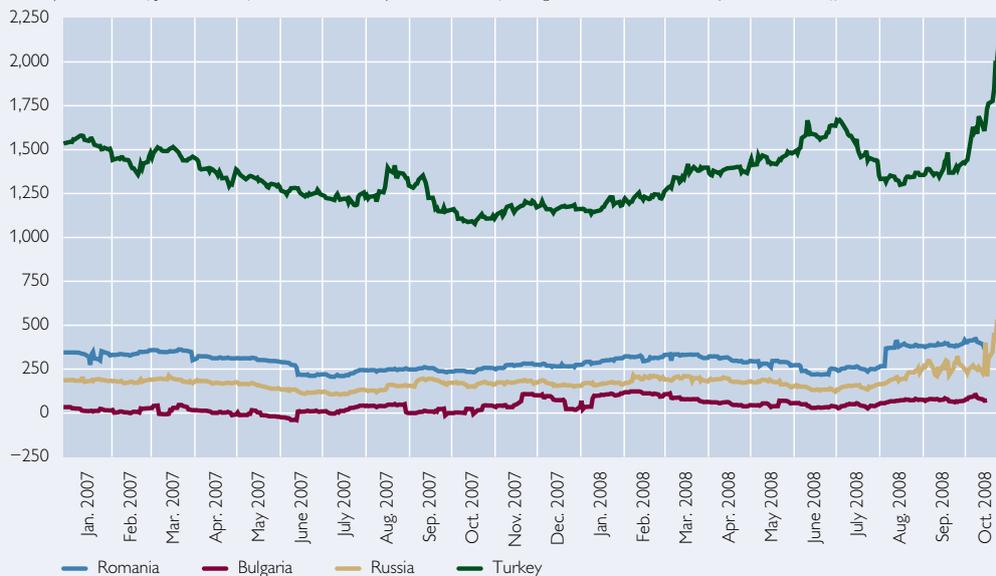
Source: Bloomberg, OeNB.

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: October 28, 2008



Source: Bloomberg, Eurostat, OeNB.

¹ The last observation for Bulgaria and Romania is October 15, 2008.

Chart 3a

Euro-Denominated Eurobond Yield Spreads

JPM Euro EMBI Global

Cutoff date: October 28, 2008



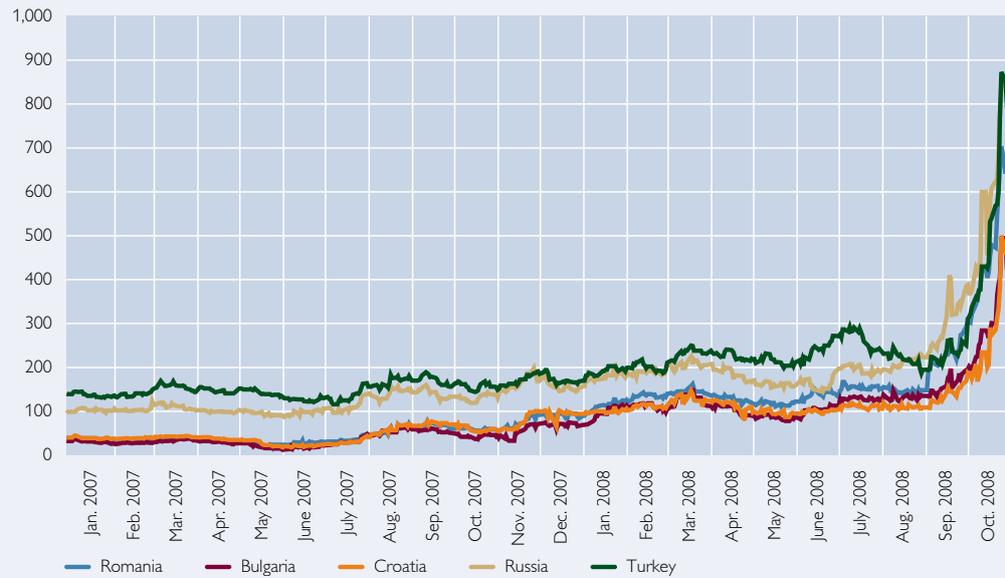
Source: Bloomberg, OeNB.

Chart 3b

Euro-Denominated Eurobond Yield Spreads

JPM Euro EMBI Global, for Russia JPM EMBI Global

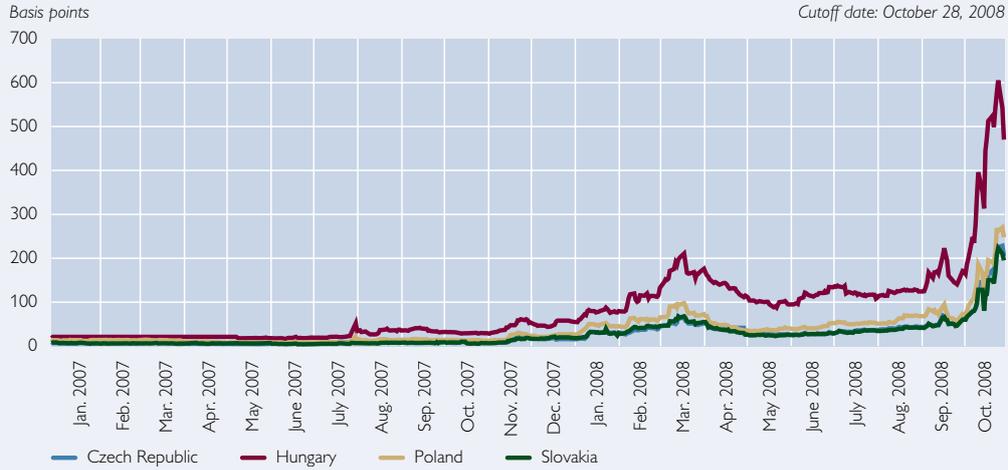
Cutoff date: October 28, 2008



Source: Bloomberg, OeNB.

Chart 4a

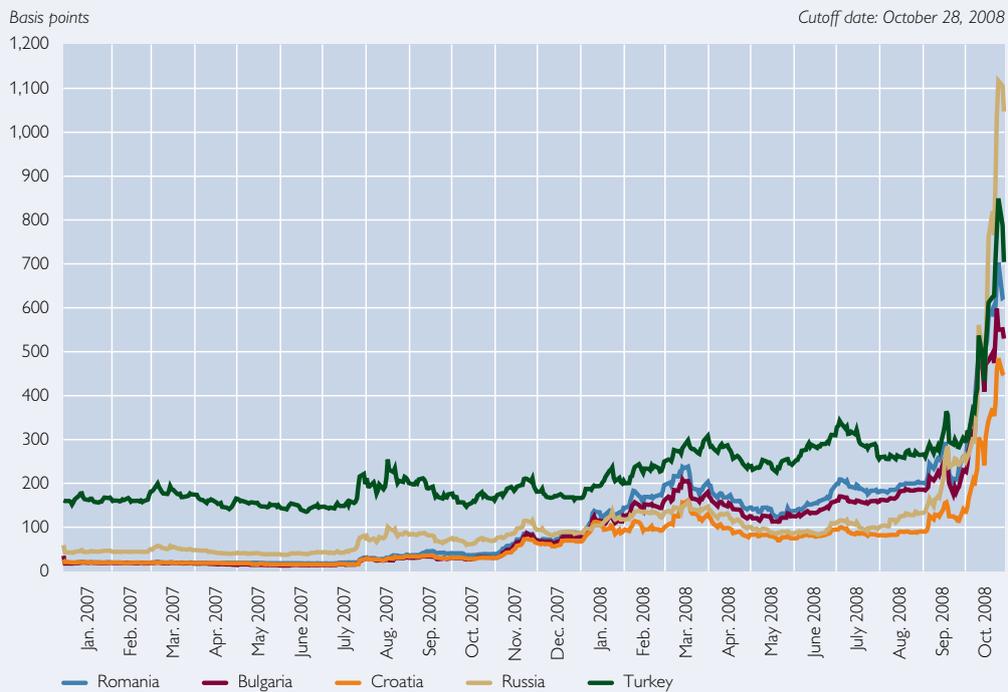
Sovereign 5-Year Credit Default Swap Spreads



Source: Datastream, OeNB.

Chart 4b

Sovereign 5-Year Credit Default Swap Spreads



Source: Datastream, OeNB.

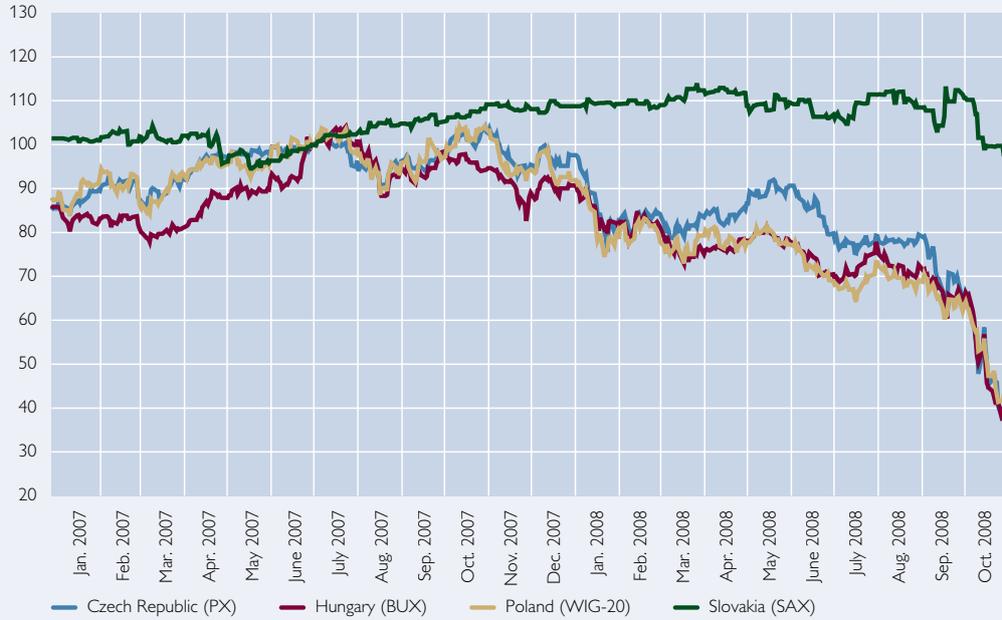
Note: Data for Bulgaria and Russia are based on USD.

Chart 5a

Stock Market Developments

June 29, 2007 = 100

Cutoff date: October 28, 2008



Source: Datastream, OeNB.

Chart 5b

Stock Market Developments

June 29, 2007 = 100

Cutoff date: October 28, 2008



Source: Datastream, OeNB.

Chart 6a

Exchange Rate Developments against the Euro¹

June 29, 2007 = 100

Cutoff date: October 28, 2008



Source: Eurostat, OeNB.

¹ An increase in value means a nominal appreciation.

Chart 6b

Exchange Rate Developments against the Euro¹

June 29, 2007 = 100

Cutoff date: October 28, 2008



Source: Eurostat, OeNB.

¹ An increase in value means a nominal appreciation.

2 Slovenia: Inflation Slowing along Weakening but Solid Output Growth

Real GDP growth decelerated slightly in the first half of 2008

Real GDP grew by 5.5% year on year in the first half of 2008, slightly slower than in full-year 2007. Domestic demand was the main driver of growth. Thanks to strong construction activity in both the housing and non-housing segments, GFCF continued to expand dynamically, but at a slower pace than in full-year 2007. The sharp deceleration from the first to the second quarter 2008 was in line with weakening credit activity, thinner export order books, some decline in industrial capacity utilization and potentially also linked to the ebbing of strong investment activity related to Slovenia's EU presidency in the first half of 2008. Compared with full-year 2007, domestic consumption growth picked up slightly owing to strengthening public consumption, but remained well below overall GDP growth. The dynamics of both exports and imports slowed sharply compared with 2007 on account of somewhat weaker domestic demand and sharply decelerating foreign demand. The contribution of net exports to growth remained broadly unchanged at around -1 percentage point.

Turnaround in inflation trends?

Following a substantial strengthening of price pressures in the second half of 2007 and early 2008, inflation picked up further in the second and third quarter of 2008, hitting almost 7% in July, but then fell back to 5.6% by September. Thus, the inflation differential to the euro area average narrowed from around 3 percentage points in the first quarter of 2008 to 2 percentage points in September. While the increase in headline inflation between April and July was mostly attributable to rising energy and unprocessed food prices, the subsequent decline in inflation was also to a large extent driven by these two items. Core inflation was on a falling trend from April 2008, coming in at 4.5% in September, which is, however, still elevated in a euro area context. Most notably, price pressures in the processed food segment (which played a major role in the acceleration in inflation from mid-2007) eased gradually in recent months, but were still high at 7.3% in September. Despite the favorable trend in core inflation, caution is warranted, given the pickup in ULC growth at the level of the whole economy (excluding agriculture) that was primarily attributable to accelerating nominal labor cost growth. Banka Slovenije expects annual average inflation to come to 6.1% in 2008, 3.5% in 2009 and 2.8% in 2010.

So far no significant impact of the international financial crisis

A significant worsening of the terms of trade led to a larger deficit on the goods and services balance during the first half of 2008. This, together with a widening deficit on the income balance and on the current transfers balance, caused the combined current and capital account deficit to deteriorate markedly to 5.7% of GDP. Net FDI inflows were positive, but only very small (0.6% of GDP). It should be noted, however, that two factors shelter Slovenia from some of the risks generally associated with large current account deficits: euro area membership and the fact that the country's current account deficit is toward other euro area members.⁷ Hence, the difficult global financial market environment has so far had a very limited impact only on Slovenia. However, risk premia have increased, which raises the cost of financing the rising external deficit.

Parliamentary elections bring change in government

The Social Democratic party, which emerged as the winner of parliamentary elections held late in September, is likely to form a coalition with two other center-left parties and the Pensioners' Party. In terms of economic policy, however, no significant changes have been announced so far.

⁷ In fact, Slovenia had a positive current account position toward non-euro area countries in 2007.

Table 5

Main Economic Indicators: Slovenia

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 4.1 | 5.7 | 6.1 | 7.2 | 6.0 | 6.4 | 4.7 | 5.4 | 5.5 |
| Private consumption | 2.7 | 4.0 | 3.1 | 2.4 | 2.1 | 4.7 | 3.3 | 3.5 | 2.6 |
| Public consumption | 3.2 | 4.4 | 1.4 | 0.7 | 0.4 | 1.7 | 2.7 | 2.9 | 2.8 |
| Gross fixed capital formation | 2.5 | 8.4 | 17.2 | 21.2 | 21.8 | 18.7 | 8.6 | 16.9 | 9.0 |
| Exports of goods and services | 10.1 | 12.3 | 13.0 | 14.9 | 13.0 | 15.1 | 9.3 | 6.8 | 7.8 |
| Imports of goods and services | 6.7 | 12.2 | 14.1 | 14.4 | 16.2 | 18.2 | 8.6 | 9.7 | 7.3 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand | 2.2 | 5.9 | 7.4 | 7.3 | 8.6 | 8.9 | 4.9 | 8.0 | 5.4 |
| Net exports of goods and services | 1.9 | -0.1 | -1.0 | 0.3 | -2.1 | -2.2 | 0.0 | -2.3 | 0.3 |
| Exports of goods and services | 6.4 | 8.2 | 9.2 | 10.5 | 9.1 | 10.5 | 6.7 | 5.1 | 5.9 |
| Imports of goods and services | 4.4 | 8.3 | 10.2 | 10.2 | 11.2 | 12.7 | 6.6 | 7.4 | 5.6 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity of industry (real) | 5.9 | 7.9 | 5.5 | 7.8 | 6.2 | 5.1 | 3.0 | 1.5 | 3.5 |
| Gross average wage of industry (nominal) | 5.8 | 5.5 | 6.7 | 5.6 | 5.8 | 6.6 | 8.6 | 8.3 | 9.7 |
| Unit labor cost of industry (nominal) | -0.1 | -2.3 | 1.1 | -2.0 | -0.4 | 1.4 | 5.4 | 6.7 | 6.0 |
| Producer price index (PPI) of industry | 2.8 | 2.4 | 7.1 | 4.5 | 5.0 | 8.2 | 10.7 | 10.2 | 10.8 |
| Consumer price index (here: HICP) | 2.5 | 2.5 | 3.8 | 2.6 | 3.2 | 3.7 | 5.5 | 6.5 | 6.4 |
| EUR per 1 SIT, + = SIT appreciation | -0.2 | -0.0 | -0.0 | -0.1 | -0.0 | -0.0 | -0.0 | 0.0 | 0.0 |
| <i>Period average levels</i> | | | | | | | | | |
| Unemployment rate (ILO definition, %, 15-64 years) | 6.7 | 6.1 | 5.0 | 5.8 | 4.7 | 4.5 | 4.8 | 5.1 | 4.2 |
| Employment rate (15-64 years) | 66.0 | 66.6 | 67.8 | 66.0 | 68.3 | 69.0 | 67.7 | 67.1 | 68.3 |
| Key interest rate per annum (%) | 4.0 | 3.5 | 3.8 | 3.5 | 3.8 | 4.0 | 4.0 | 4.0 | 4.0 |
| 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) ¹ | 6.6 | 8.4 | 22.5 | 18.4 | 21.2 | 25.2 | 25.0 | 13.2 | 10.9 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | -10.4 | -15.6 | -21.4 | -19.5 | -18.0 | -22.8 | -25.3 | -17.7 | -16.8 |
| Domestic credit of the banking system | 19.7 | 24.7 | 36.6 | 30.6 | 33.9 | 38.6 | 42.9 | 34.8 | 32.7 |
| of which: claims on the private sector | 16.6 | 26.8 | 36.0 | 29.9 | 32.7 | 38.8 | 42.3 | 36.6 | 35.3 |
| claims on households | 4.4 | 7.0 | 8.0 | 7.3 | 7.5 | 8.2 | 9.1 | 8.4 | 7.9 |
| claims on enterprises | 12.3 | 19.8 | 28.0 | 22.6 | 25.2 | 30.6 | 33.2 | 28.2 | 27.4 |
| claims on the public sector (net) | 3.0 | -2.1 | 0.6 | 0.7 | 1.2 | -0.2 | 0.7 | -1.8 | -2.6 |
| Other domestic assets (net) of the banking system | -2.7 | -0.6 | 7.4 | 7.3 | 5.3 | 9.5 | 7.3 | -5.8 | -5.0 |
| <i>% of GDP, ESA 95</i> | | | | | | | | | |
| General government revenues | 44.5 | 44.1 | 43.2 | .. | .. | .. | .. | .. | .. |
| General government expenditures | 46.0 | 45.3 | 43.3 | .. | .. | .. | .. | .. | .. |
| General government balance | -1.5 | -1.2 | -0.1 | .. | .. | .. | .. | .. | .. |
| Primary balance | 0.1 | 0.2 | 1.2 | .. | .. | .. | .. | .. | .. |
| Gross public debt | 27.6 | 27.3 | 24.1 | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 12.9 | 16.6 | 16.1 | 18.7 | 16.7 | 18.2 | 11.5 | 7.3 | 7.4 |
| Merchandise imports | 12.1 | 16.3 | 17.9 | 18.7 | 22.3 | 20.1 | 11.7 | 11.9 | 11.2 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | -3.6 | -3.8 | -5.0 | -3.2 | -4.5 | -4.4 | -7.5 | -5.8 | -6.6 |
| Services balance | 3.0 | 2.8 | 3.1 | 2.7 | 4.0 | 3.9 | 1.8 | 3.9 | 5.3 |
| Income balance (factor services balance) | -1.0 | -1.3 | -2.2 | -1.9 | -1.8 | -2.3 | -2.6 | -2.6 | -2.5 |
| Current transfers | -0.3 | -0.6 | -0.9 | -1.0 | -0.4 | -1.2 | -1.0 | -1.9 | -1.1 |
| Current account balance | -2.0 | -2.8 | -4.9 | -3.4 | -2.7 | -4.1 | -9.2 | -6.4 | -4.8 |
| Capital account balance | -0.4 | -0.4 | -0.2 | 0.2 | -0.3 | -0.4 | -0.1 | -0.0 | -0.2 |
| Foreign direct investment (net) | -0.2 | -0.7 | -0.2 | -1.6 | -0.2 | -1.2 | 1.9 | 1.7 | -0.4 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 72.6 | 78.9 | 102.4 | 91.0 | 94.2 | 97.3 | 102.4 | 107.7 | 110.7 |
| Gross official reserves (excluding gold) | 24.2 | 17.5 | 2.0 | 2.7 | 2.6 | 2.3 | 2.0 | 2.1 | 1.8 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 4.6 | 3.1 | 0.3 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 28,252 | 30,454 | 33,542 | 7,679 | 8,537 | 8,730 | 8,596 | 8,525 | 9,353 |

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

¹ The methodology for calculating broad money and its components was changed for data from the beginning of 2005.

3 Bulgaria: Economic Vulnerabilities Intensified despite some Mitigating Factors

Solid real GDP growth coupled with tighter external refinancing conditions

The impact of the ongoing and recently aggravating global financial crisis remained limited in Bulgaria up to the cutoff date for data – at least in terms of economic growth. Real GDP growth came to 7% year on year in the first half of 2008, driven mainly by a robust expansion of GFCF but also private consumption.⁸ Nevertheless, recent financial market indicators point to higher economic vulnerabilities, as reflected in a decline of the equity index, higher risk premia, or in the remarkable decrease of the banking system's net foreign assets as a contribution to the year-on-year change of broad money, indicating tighter external refinancing conditions. Given heightened liquidity pressures, the Bulgarian National Bank (BNB) eased the minimum reserve requirement on October 21.⁹

Bulgaria is faced with external imbalances and strong inflationary pressure

The combined current and capital account deficit remained high at about 25% of GDP in the first half of 2008, which was primarily attributable to a further widening of the trade deficit. Beyond that, net inward FDI was significantly lower than expected in the first half of 2008, which can be almost fully ascribed to a decline of FDI in the construction and real estate sectors.¹⁰ As a result, net FDI inflows covered only 44% of the combined current and capital account deficit in the first half of 2008 – a substantial deterioration compared with the same period in 2007. The higher vulnerability to external shocks is also reflected in a rise of net external debt from 28% of GDP at end-2007 to 36% in June 2008, with the share of private sector and short-term external debt increasing further.

Strong inflationary pressures persisted from mid-2007 as a consequence of the food and energy price shock, strong domestic demand, a tightening labor market, and administered price adjustments. Bulgaria had the second-highest consumer price inflation rate in the EU (HICP rate: 13.2% on average in the first half of 2008). After peaking in June at 14.7% year on year, HICP inflation slowed considerably to 11.4% in September, helped by a favorable base effect. The BNB expects inflation to moderate on an annual basis in the second half of 2008 given the recent stabilization of food and energy prices, and to reach about 8% by year-end.

Labor productivity gains declined substantially in the first half of 2008. As a consequence of tightening labor market conditions, wage growth – which had been high already – gained further momentum and translated into strongly expanding nominal ULC in industry.

Vulnerabilities are contained by a strong fiscal position and comparatively high foreign exchange reserves

Higher-than-expected growth and inflation pushed up government revenues and improved the surplus of the consolidated general government balance to 7% of (projected) GDP by the end of August. The central bank's foreign reserves (excluding gold) came to 43% of GDP at end-September – the highest share in the CESEE region – and more than 100% of the country's entire short-term external debt burden.

⁸ Domestic demand is still driven by credit growth (although real growth of private sector credit decelerated from 45.6% at end-2007 to 32.5% at end-June 2008) and by wage dynamics (about +10% year on year in the first half of 2008).

⁹ From that date on, 50% of commercial banks' cash on hand is recognized as reserve assets and commercial banks get easier access to the reserves they keep with the BNB.

¹⁰ This decline was due to the exit of Western European buyers from Bulgaria's real estate market (Source: Raiffeisen Research, Strategy Bulgaria, September 2008).

Table 6

Main Economic Indicators: Bulgaria

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 6.2 | 6.3 | 6.2 | 5.5 | 7.3 | 4.9 | 6.9 | 7.1 | 7.1 |
| Private consumption | 6.1 | 9.5 | 5.3 | 7.8 | 6.1 | 5.2 | 2.8 | 6.5 | 5.4 |
| Public consumption | 2.5 | -1.3 | 3.1 | -2.0 | -0.1 | -0.4 | 11.2 | -4.4 | 2.0 |
| Gross fixed capital formation | 23.3 | 17.6 | 21.7 | 35.9 | 24.7 | 19.7 | 14.0 | 15.5 | 28.6 |
| Exports of goods and services | 8.6 | 8.7 | 5.2 | 3.7 | 5.3 | 5.4 | 6.0 | 9.2 | 5.1 |
| Imports of goods and services | 13.1 | 14.0 | 9.9 | 14.7 | 11.1 | 9.3 | 5.7 | 5.8 | 13.7 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand | 13.5 | 12.3 | 11.2 | 16.1 | 12.9 | 8.8 | 8.5 | 6.0 | 15.4 |
| Net exports of goods and services | -5.1 | -6.4 | -5.6 | -11.5 | -6.6 | -4.1 | -1.9 | 0.1 | -9.8 |
| Exports of goods and services | 5.4 | 5.6 | 3.4 | 2.5 | 3.8 | 3.7 | 3.5 | 6.1 | 3.5 |
| Imports of goods and services | 10.5 | 12.0 | 9.1 | 14.1 | 10.4 | 7.9 | 5.4 | 6.0 | 13.3 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity of industry (real) | 3.4 | 8.2 | 9.5 | 8.4 | 8.9 | 10.9 | 9.7 | 3.1 | 5.3 |
| Gross average wage of industry (nominal) | 8.1 | 10.8 | 20.1 | 17.6 | 19.5 | 20.0 | 22.8 | 25.0 | 24.0 |
| Unit labor cost of industry (nominal) | 4.6 | 2.5 | 9.7 | 8.5 | 9.8 | 8.2 | 11.9 | 21.3 | 17.8 |
| Producer price index (PPI) of industry | 7.0 | 9.4 | 8.8 | 7.4 | 6.8 | 8.8 | 12.1 | 14.3 | 14.0 |
| Consumer price index (here: HICP) | 6.0 | 7.4 | 7.6 | 5.3 | 4.7 | 9.0 | 11.2 | 12.4 | 14.0 |
| EUR per 1 BGN, + = BGN appreciation | -0.1 | 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) | 10.2 | 9.0 | 7.0 | 8.0 | 6.9 | 6.7 | 6.2 | 6.6 | 5.9 |
| Employment rate (15-64 years) | 55.8 | 58.6 | 61.7 | 59.7 | 61.6 | 62.7 | 62.9 | 62.6 | 63.9 |
| 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) | 27.3 | 21.3 | 29.0 | 28.1 | 28.5 | 29.4 | 29.7 | 30.2 | 27.4 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | 8.9 | 14.7 | 10.4 | 19.2 | 11.4 | 8.3 | 4.1 | 1.8 | 0.4 |
| Domestic credit of the banking system | 25.8 | 13.0 | 25.3 | 14.4 | 22.3 | 28.0 | 34.2 | 37.8 | 35.3 |
| <i>of which: claims on the private sector</i> | 27.9 | 16.4 | 34.2 | 22.3 | 31.3 | 37.6 | 43.3 | 45.5 | 44.6 |
| <i>claims on households</i> | 13.0 | 9.4 | 12.0 | 9.2 | 11.1 | 12.7 | 14.5 | 15.4 | 15.2 |
| <i>claims on enterprises</i> | 14.9 | 7.0 | 22.2 | 13.1 | 20.2 | 24.9 | 28.8 | 30.2 | 29.4 |
| <i>claims on the public sector (net)</i> | -2.1 | -3.4 | -8.9 | -7.9 | -9.0 | -9.6 | -9.1 | -7.8 | -9.2 |
| Other domestic assets (net) of the banking system | -7.4 | -6.4 | -6.6 | -5.5 | -5.3 | -6.9 | -8.6 | -9.3 | -8.4 |
| <i>% of GDP, ESA 95</i> | | | | | | | | | |
| General government revenues | 41.0 | 39.4 | 41.2 | .. | .. | .. | .. | .. | .. |
| General government expenditures | 39.2 | 36.4 | 37.8 | .. | .. | .. | .. | .. | .. |
| General government balance | 1.8 | 3.0 | 3.4 | .. | .. | .. | .. | .. | .. |
| Primary balance | 3.5 | 4.4 | 4.4 | .. | .. | .. | .. | .. | .. |
| Gross public debt | 29.2 | 22.7 | 18.2 | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 18.6 | 26.9 | 12.2 | 8.5 | 8.3 | 12.2 | 19.2 | 25.7 | 23.6 |
| Merchandise imports | 26.9 | 26.7 | 18.5 | 19.5 | 18.4 | 17.2 | 19.1 | 21.6 | 31.8 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | -20.2 | -22.0 | -25.5 | -27.3 | -25.1 | -22.3 | -27.5 | -26.1 | -30.6 |
| Services balance | 3.7 | 3.7 | 3.8 | -1.0 | 5.5 | 11.4 | -1.4 | -2.1 | 4.4 |
| Income balance (factor services balance) | 0.3 | -2.1 | -1.1 | -0.2 | -1.2 | -2.7 | -0.1 | 0.8 | -2.9 |
| Current transfers | 3.7 | 2.7 | 1.2 | 1.2 | 1.2 | 0.9 | 1.3 | 2.0 | 4.1 |
| Current account balance | -12.4 | -17.8 | -21.5 | -27.3 | -19.5 | -12.7 | -27.7 | -25.4 | -24.9 |
| Capital account balance | 1.1 | 0.7 | 1.2 | 0.5 | 0.6 | 0.9 | 2.6 | 2.7 | 0.2 |
| Foreign direct investment (net) | 14.7 | 23.1 | 20.5 | 15.7 | 23.0 | 22.3 | 19.9 | 6.9 | 14.4 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 69.8 | 80.7 | 97.3 | 81.1 | 83.9 | 92.2 | 97.3 | 99.5 | 101.4 |
| Gross official reserves (excluding gold) | 31.1 | 32.9 | 38.8 | 32.1 | 33.5 | 39.8 | 38.8 | 37.8 | 39.7 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 4.9 | 4.8 | 5.5 | 4.6 | 4.8 | 5.7 | 5.5 | 5.3 | 5.5 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 21,882 | 25,238 | 28,899 | 5,771 | 6,720 | 8,050 | 8,358 | 6,894 | 8,152 |

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

¹ Not available in a currency board regime.

4 Czech Republic: Deceleration of Growth Dynamics Has Materialized

Economic growth on a gradual moderation path

In the first six months of 2008, real GDP in the Czech Republic grew by 4.9% year on year. The fourth quarter of 2007 was thus the last of 11 consecutive quarters in which GDP expanded by at least 6%, and growth has been gradually losing momentum since. The slowdown was attributable to a significant deceleration of domestic demand growth, which had been the main driver of economic performance over the past two years. Private consumption cooled down particularly as a consequence of an overall decline in disposable household income due to a fiscal reform package¹¹ and higher inflation. Gross capital formation growth almost came to a halt owing to lower investment and a substantial stock reduction, both in anticipation of a global economic slowdown. As a result, the contribution of domestic demand to GDP growth dropped by two-thirds compared with 2007, while net exports again assumed the role of a growth engine.

Labor market improvement has reached its limits

Despite the economic slowdown, unemployment declined further in the first half of 2008, reaching the lowest levels in more than a decade. Moreover, the extended period of robust growth in combination with social transfer reforms seems to have helped reduce long-term unemployment. However, the potential for further cutting long-term unemployment appears rather limited given persistent regional structural mismatches. As a consequence, emerging labor shortages started to show in accelerating wages and ULC in the whole economy, which are, however, likely to decline somewhat owing to the downturn in economic activity.

Past terms-of-trade improvements spurred foreign trade in the first half of 2008

The surplus of trade in goods and services rose significantly in the first half of 2008, particularly in the first quarter, probably still thanks to the improvement of the country's terms of trade over the course of 2007. As a result, there was no need for external financing of the current and capital account balance, while net FDI inflows remained strong despite some slowdown. Given the steep appreciation of the Czech koruna in the first half of 2008, however, export prices declined more sharply than import prices. The deterioration of the terms of trade along with lower demand in the EU, particularly for cars, might soon weigh on the development of the trade balance.

Inflation on a downward trajectory since its peak in January

Inflation started accelerating strongly in the last quarter of 2007, primarily due to global hikes in food and oil prices, and peaked in January 2008 in response to one-off effects of the fiscal reform package and a further deregulation of administered prices. Since February, however, inflation has been on a downward path on account of weakening domestic demand; food price growth has slowed down noticeably. As inflation expectations also remained contained, Česká národní banka lowered its key interest rate by 25 basis points to 3.5% on August 8. This rate cut was, however, also strongly motivated by the strong appreciation of the currency until the second half of July.

Financial crisis spillovers limited so far but likely to intensify, particularly in the real sector

Except for the stock market, the immediate impact of the global malaise on the financial system in the Czech Republic has been limited so far. However, the recent accentuation of the financial crisis is likely to cause GDP growth to decelerate more markedly than previously expected, thus affecting the outlook for fiscal revenues and possibly also the successful fiscal consolidation.

¹¹ The package consisted, *inter alia*, of an increase in the lower VAT rate, some excise taxes and regulated rents, as well as the introduction of healthcare fees and lower social transfers.

Table 7

Main Economic Indicators: Czech Republic

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 6.3 | 6.8 | 6.6 | 6.6 | 6.6 | 6.4 | 6.6 | 5.3 | 4.5 |
| Private consumption | 2.5 | 5.4 | 5.9 | 7.0 | 6.4 | 6.1 | 4.2 | 2.6 | 3.3 |
| Public consumption | 2.9 | -0.7 | 0.5 | -0.7 | -0.8 | -0.8 | 3.7 | 0.5 | 2.0 |
| Gross fixed capital formation | 1.8 | 6.5 | 5.8 | 5.1 | 5.8 | 4.5 | 7.5 | 4.6 | 4.1 |
| Exports of goods and services | 11.6 | 15.8 | 14.6 | 15.8 | 14.1 | 15.6 | 13.1 | 13.0 | 14.1 |
| Imports of goods and services | 5.0 | 14.2 | 13.8 | 15.8 | 14.1 | 15.2 | 10.9 | 11.2 | 9.6 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand | 1.7 | 5.6 | 5.8 | 6.0 | 6.5 | 6.0 | 4.7 | 3.4 | 0.4 |
| Net exports of goods and services | 5.1 | 1.2 | 0.8 | 0.5 | 0.1 | 0.3 | 2.0 | 2.3 | 4.5 |
| Exports of goods and services | 9.5 | 13.7 | 13.7 | 15.0 | 12.8 | 14.0 | 13.1 | 13.4 | 13.7 |
| Imports of goods and services | 4.4 | 12.4 | 12.9 | 14.5 | 12.7 | 13.7 | 11.1 | 11.2 | 9.2 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity of industry (real) | 6.8 | 9.4 | 6.6 | 9.2 | 7.2 | 4.4 | 5.6 | 3.4 | 4.5 |
| Gross average wage of industry (nominal) | 4.6 | 6.1 | 8.6 | 9.3 | 8.6 | 8.4 | 8.0 | 11.6 | 8.5 |
| Unit labor cost of industry (nominal) | -2.1 | -3.0 | 1.8 | 0.1 | 1.3 | 3.9 | 2.3 | 7.9 | 3.9 |
| Producer price index (PPI) of industry | 3.0 | 1.6 | 4.0 | 3.1 | 4.1 | 3.9 | 5.0 | 5.6 | 5.1 |
| Consumer price index (here: HICP) | 1.6 | 2.1 | 3.0 | 1.7 | 2.6 | 2.7 | 4.9 | 7.6 | 6.7 |
| EUR per 1 CZK, + = CZK appreciation | 7.1 | 5.1 | 2.1 | 2.0 | 0.4 | 1.4 | 4.5 | 9.7 | 13.9 |
| <i>Period average levels</i> | | | | | | | | | |
| Unemployment rate (ILO definition, %, 15-64 years) | 8.0 | 7.2 | 5.4 | 6.1 | 5.3 | 5.2 | 4.9 | 4.7 | 4.3 |
| Employment rate (15-64 years) | 64.8 | 65.3 | 66.1 | 65.5 | 66.0 | 66.3 | 66.5 | 66.1 | 66.6 |
| Key interest rate per annum (%) | 2.0 | 2.2 | 2.9 | 2.5 | 2.5 | 3.1 | 3.4 | 3.6 | 3.8 |
| CZK per 1 EUR | 29.8 | 28.3 | 27.8 | 28.0 | 28.3 | 27.9 | 26.8 | 25.6 | 24.8 |
| <i>Nominal year-on-year change of the period average stock in %</i> | | | | | | | | | |
| Broad money (including foreign currency deposits) | 6.4 | 12.4 | 14.4 | 13.2 | 14.5 | 14.7 | 15.3 | 14.9 | 12.5 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | 5.2 | 1.2 | -1.6 | -3.2 | -0.5 | -0.8 | -2.0 | -2.3 | -4.5 |
| Domestic credit of the banking system | 0.7 | 9.2 | 15.7 | 14.5 | 15.2 | 16.7 | 16.2 | 14.9 | 13.1 |
| of which: claims on the private sector | 8.6 | 11.9 | 14.3 | 12.1 | 12.9 | 15.1 | 16.8 | 17.4 | 16.5 |
| claims on households | 5.4 | 6.7 | 7.7 | 6.9 | 7.4 | 7.9 | 8.5 | 8.9 | 8.5 |
| claims on enterprises | 3.2 | 5.2 | 6.6 | 5.2 | 5.5 | 7.2 | 8.2 | 8.5 | 8.0 |
| claims on the public sector (net) | -7.9 | -2.7 | 1.4 | 2.4 | 2.4 | 1.6 | -0.5 | -2.6 | -3.4 |
| Other domestic assets (net) of the banking system | 0.5 | 2.0 | 0.3 | 1.8 | -0.3 | -1.2 | 1.1 | 2.3 | 3.9 |
| <i>% of GDP, ESA 95</i> | | | | | | | | | |
| General government revenues | 41.4 | 41.0 | 40.8 | .. | .. | .. | .. | .. | .. |
| General government expenditures | 44.9 | 43.6 | 42.4 | .. | .. | .. | .. | .. | .. |
| General government balance | -3.6 | -2.7 | -1.6 | .. | .. | .. | .. | .. | .. |
| Primary balance | -2.4 | -1.5 | -0.4 | .. | .. | .. | .. | .. | .. |
| Gross public debt | 29.7 | 29.4 | 28.7 | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 16.1 | 20.6 | 18.1 | 19.9 | 17.2 | 18.9 | 16.6 | 16.6 | 20.5 |
| Merchandise imports | 11.6 | 20.7 | 15.8 | 17.6 | 15.1 | 16.8 | 14.3 | 18.0 | 18.1 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | 2.0 | 2.0 | 3.4 | 5.5 | 3.0 | 2.3 | 2.9 | 4.7 | 4.3 |
| Services balance | 1.2 | 1.4 | 1.6 | 1.5 | 2.0 | 1.8 | 1.2 | 2.7 | 1.9 |
| Income balance (factor services balance) | -4.8 | -5.6 | -6.3 | -3.2 | -7.5 | -7.5 | -6.6 | -4.3 | -12.9 |
| Current transfers | 0.2 | -0.4 | -0.5 | -0.4 | -0.8 | -0.6 | -0.2 | 0.1 | 0.2 |
| Current account balance | -1.3 | -2.6 | -1.8 | 3.4 | -3.3 | -3.9 | -2.8 | 3.2 | -6.4 |
| Capital account balance | 0.2 | 0.3 | 0.6 | 0.3 | 0.0 | 0.4 | 1.5 | 0.8 | 1.3 |
| Foreign direct investment (net) | 9.4 | 2.8 | 4.5 | 4.2 | 3.5 | 3.7 | 6.3 | 2.4 | 6.0 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 39.3 | 38.2 | 39.6 | 37.2 | 37.6 | 37.8 | 39.6 | 40.0 | 43.7 |
| Gross official reserves (excluding gold) | 24.8 | 20.9 | 18.4 | 20.2 | 19.1 | 18.7 | 18.4 | 17.8 | 17.0 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 4.3 | 3.4 | 3.0 | 3.3 | 3.1 | 3.0 | 3.0 | 2.9 | 2.8 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 100,223 | 113,508 | 128,005 | 29,314 | 31,927 | 32,147 | 34,617 | 34,844 | 38,691 |

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

5 Hungary: Hit Hard by the International Turmoil

Hungary's external vulnerability made headlines in mid-October. As investors fled the market (according to the country's prime minister, Hungary was subject to speculative attack), the local currency bond market collapsed for the second time in 2008, the Hungarian forint weakened significantly and its volatility increased sharply. Therefore, Magyar Nemzeti Bank (MNB) and the Hungarian government decided to take coordinated measures so as to improve liquidity conditions in the interbank and government bond markets and to bolster investor confidence. Hungary also received assurance of international support from the IMF, the ECB and the EU. Concerns were fueled by the country's large and rising external debt and its growing (albeit rather moderate compared with regional peers) short-term component, the sharp rise in risk premia since mid-2007 and the substantial exposure of households and enterprises to the risks associated with foreign currency loans. In this environment, the decline in the deficit of the combined current and capital account to 5% of GDP in the first half of 2008 (almost fully covered by net FDI) was not enough to assuage investors.

Growth recovery in the first half of 2008 due to temporary factors

The Hungarian economy expanded by almost 2% in the first half of 2008, with a recovery from the first to the second quarter. However, real GDP excluding agriculture grew by 1% only in the first half of 2008, and even slowed to 0.5% in the second quarter. On the expenditure side, growth was driven by net exports, but export growth decelerated and its margin over import growth continued to narrow. Private consumption growth was anemic and investment activity again contracted on account of declining construction activity.

MNB hikes key rate by 300 basis points to ward off downward pressure on the currency

Inflation hovered at between 6.6% and 7.0% in the period from March to July, before falling back to 5.6% by September. Energy prices were a major contributor to this pattern, while the contribution of unprocessed food prices decreased markedly. Price pressure in the processed food segment rose continuously until July, but accounted for the bulk of the decline in core inflation during August and September. In order to minimize the risks of inflation expectations being stuck at elevated levels (and also taking account of unabated growth of private sector nominal wages by around 8% to 10% year on year¹²), the MNB kept policy rates high. At the same time, monetary conditions were tightened additionally by the appreciation of the forint against the euro by around 14% between early April and mid-July 2008. When the gradual weakening of the forint accelerated sharply in the first three weeks of October (around -15%), the MNB's Monetary Council hiked interest rates by 300 basis points in an emergency meeting on October 22. Among other things, this measure was taken to shelter the currency for the following two days, when the market and the stock exchange were closed due to a national holiday. In its latest forecast in August, the MNB expected inflation to fall to its 3% target by around mid-2010, with the risks being symmetric. However, the inflation forecast will likely be adjusted in the next projection.

Fiscal plans revised in light of the global financial crisis

In response to the current situation, the government submitted a revised budget draft to parliament in mid-October in which it lowered its 2008 budget deficit projection from 3.8% of GDP to 3.4% (suggesting that the actual outcome might be even lower) and reduced the 2009 target from 3.2% to 2.9%. The main economic assumptions underlying the budget were also modified (the 2009 growth forecast was slashed from 3.0% to 1.2% and the inflation forecast was revised from 4.3% to 3.9%). Over and above additional spending cuts the government also put off the tax cuts announced earlier.

¹² It should be noted, however, that ULC in industry (which are more relevant for external competitiveness) grew by only 1.5% year on year during the first half of 2008; still, they did not contract as they had in the period from 2005 to 2007.

Table 8

Main Economic Indicators: Hungary

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 4.1 | 3.9 | 1.3 | 2.7 | 1.2 | 0.9 | 0.8 | 1.7 | 2.1 |
| Private consumption | 3.4 | 1.7 | -0.3 | 0.2 | -0.6 | -0.6 | -0.2 | 0.4 | 1.3 |
| Public consumption | 2.4 | 4.3 | -6.2 | -10.9 | -7.4 | -2.2 | -4.0 | -6.4 | 0.7 |
| Gross fixed capital formation | 5.3 | -2.5 | 0.1 | 0.5 | -0.8 | -2.6 | 2.6 | -5.4 | -2.2 |
| Exports of goods and services | 11.5 | 19.0 | 14.2 | 17.4 | 14.6 | 14.9 | 10.4 | 13.9 | 11.1 |
| Imports of goods and services | 6.8 | 14.7 | 12.0 | 12.8 | 13.1 | 13.5 | 9.1 | 10.2 | 11.2 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand | 1.3 | 1.2 | -0.4 | -0.3 | -0.2 | -0.5 | -0.5 | -1.8 | 1.9 |
| Net exports of goods and services | 3.6 | 3.7 | 2.4 | 4.6 | 1.9 | 1.8 | 1.6 | 4.7 | 0.5 |
| Exports of goods and services | 9.6 | 17.0 | 14.5 | 18.0 | 14.7 | 15.0 | 11.0 | 16.4 | 12.7 |
| Imports of goods and services | 6.0 | 13.4 | 12.1 | 13.4 | 12.8 | 13.2 | 9.4 | 11.7 | 12.2 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity of industry (real) | 10.1 | 11.5 | 9.3 | 9.8 | 8.5 | 10.6 | 8.5 | 7.2 | 4.6 |
| Gross average wage of industry (nominal) | 7.2 | 8.6 | 8.4 | 8.9 | 9.5 | 7.7 | 7.6 | 7.9 | 7.3 |
| Unit labor cost of industry (nominal) | -2.6 | -2.6 | -0.8 | -0.8 | 1.0 | -2.6 | -0.8 | 0.6 | 2.5 |
| Producer price index (PPI) of industry | 2.9 | 6.7 | -0.1 | 3.4 | -0.8 | -2.8 | 0.1 | 5.2 | 5.6 |
| Consumer price index (here: HICP) | 3.5 | 4.0 | 7.9 | 8.8 | 8.5 | 7.3 | 7.1 | 6.9 | 6.8 |
| EUR per 1 HUF, + = HUF appreciation | 1.5 | -6.1 | 5.1 | 0.9 | 7.5 | 9.4 | 2.9 | -2.7 | 0.1 |
| <i>Period average levels</i> | | | | | | | | | |
| Unemployment rate (ILO definition, %, 15-64 years) | 7.2 | 7.5 | 7.4 | 7.5 | 7.0 | 7.3 | 7.8 | 8.0 | 7.7 |
| Employment rate (15-64 years) | 56.9 | 57.3 | 57.3 | 56.9 | 57.6 | 57.7 | 57.1 | 56.1 | 56.5 |
| Key interest rate per annum (%) | 7.1 | 6.8 | 7.8 | 8.0 | 8.0 | 7.7 | 7.5 | 7.5 | 8.3 |
| HUF per 1 EUR | 248.0 | 264.3 | 251.3 | 252.3 | 248.3 | 251.8 | 252.9 | 259.3 | 248.0 |
| <i>Nominal year-on-year change of the period average stock in %</i> | | | | | | | | | |
| Broad money (including foreign currency deposits) | 13.8 | 16.2 | 9.8 | 11.1 | 7.9 | 8.5 | 11.4 | 13.8 | 13.3 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | 0.6 | -2.2 | -5.6 | -4.6 | -4.8 | -5.9 | -7.2 | -8.9 | -9.1 |
| Domestic credit of the banking system | 15.3 | 23.6 | 17.9 | 21.1 | 15.3 | 15.3 | 19.9 | 26.3 | 24.0 |
| of which: claims on the private sector | 16.6 | 21.7 | 14.4 | 15.7 | 11.6 | 13.3 | 16.9 | 23.8 | 21.8 |
| claims on households | 7.3 | 9.4 | 8.1 | 8.8 | 7.6 | 7.5 | 8.5 | 10.9 | 10.2 |
| claims on enterprises | 9.3 | 12.3 | 6.3 | 6.9 | 4.1 | 5.8 | 8.3 | 12.8 | 11.6 |
| claims on the public sector (net) | -1.3 | 1.9 | 3.5 | 5.4 | 3.7 | 1.9 | 3.0 | 2.6 | 2.3 |
| Other domestic assets (net) of the banking system | -2.0 | -5.2 | -2.5 | -5.4 | -2.6 | -0.8 | -1.3 | -3.6 | -1.7 |
| <i>% of GDP, ESA 95</i> | | | | | | | | | |
| General government revenues ¹ | 42.1 | 42.6 | 44.6 | .. | .. | .. | .. | .. | .. |
| General government expenditures ¹ | 49.9 | 51.9 | 50.1 | .. | .. | .. | .. | .. | .. |
| General government balance ¹ | -7.8 | -9.2 | -5.5 | .. | .. | .. | .. | .. | .. |
| Primary balance ¹ | -3.7 | -5.3 | -1.4 | .. | .. | .. | .. | .. | .. |
| Gross public debt ¹ | 61.6 | 65.6 | 66.0 | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 11.6 | 17.5 | 17.1 | 19.9 | 17.7 | 19.2 | 12.5 | 14.9 | 12.5 |
| Merchandise imports | 9.5 | 16.5 | 12.6 | 14.7 | 14.0 | 13.5 | 8.8 | 12.6 | 11.3 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | -2.5 | -2.3 | 0.3 | -0.1 | 0.4 | 0.2 | 0.7 | 1.6 | 1.0 |
| Services balance | 1.3 | 1.4 | 1.0 | 0.7 | 1.3 | 1.6 | 0.5 | 0.3 | 1.1 |
| Income balance (factor services balance) | -5.7 | -6.2 | -7.3 | -7.2 | -8.6 | -6.7 | -6.7 | -7.7 | -7.5 |
| Current transfers | -0.6 | -0.5 | -0.5 | 0.1 | -0.8 | -1.6 | 0.3 | -1.1 | -1.2 |
| Current account balance | -7.5 | -7.5 | -6.4 | -6.4 | -7.7 | -6.6 | -5.2 | -6.9 | -6.6 |
| Capital account balance | 0.8 | 0.6 | 1.1 | 0.2 | 0.5 | 2.3 | 1.3 | 3.3 | 0.5 |
| Foreign direct investment (net) | 5.0 | 3.2 | 1.6 | 1.0 | -3.2 | 5.5 | 2.9 | 2.1 | 6.3 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 75.0 | 90.5 | 97.2 | 92.8 | 96.6 | 94.9 | 97.2 | 99.0 | 103.4 |
| Gross official reserves (excluding gold) | 17.7 | 18.2 | 16.2 | 18.3 | 17.7 | 16.6 | 16.2 | 16.4 | 16.6 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 3.1 | 2.8 | 2.5 | 2.8 | 2.7 | 2.5 | 2.5 | 2.5 | 2.5 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 88,809 | 90,006 | 101,086 | 22,672 | 25,470 | 25,586 | 27,358 | 23,744 | 27,731 |

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

¹ Including the net costs of the pension reform.

6 Poland: Roadmap for Euro Adoption Proposed

Growth slowdown set in after a strong first half of the year

Real GDP growth decelerated to 6.1% in the first half of 2008, from 6.5% in full-year 2007. Private consumption growth remained below total GDP growth despite strong employment and real wage growth, partly because real growth of gross social benefits was subdued. The deceleration in GDP growth resulted from slower GFCF growth, which was still high at 15% owing to several factors: The financial situation of the corporate sector remained favorable, the level of real interest rates was moderate, real growth of credit to nonfinancial corporations stayed high and the absorption of EU funds accelerated further. Export growth picked up despite the slowdown of euro area import growth and the rise of manufacturing ULC as well as a strong nominal appreciation of the Polish zloty against the euro (by 10% on average in the first half of 2008 year on year). Notwithstanding these developments, import growth declined, probably reflecting slower GFCF growth. Thus, the growth contribution of net exports became less negative. However, export growth in the second quarter was lower than in the first quarter of 2008, and available data on industrial output, retail sales and exports indicate that growth will slow down further in the third quarter. The recent intensification of the global financial crisis is likely to imply a more pronounced deceleration of GDP growth, even though the depreciation of the zloty against the euro (following a peak around mid-2008) may help dampen negative growth effects.

Stable external position

As export growth remained below import growth in nominal euro terms, the deficit in the goods and services balance widened in the first half of 2008 compared with the same period one year earlier. Thanks to the capital account surplus, however, the deficit of the combined capital and current account remained almost unchanged. Net FDI inflows covered only one-half of this deficit, and the remaining net inflows on the financial account lifted gross external debt and raised official foreign exchange reserves.

MPC keeps key rates on hold at end-September amid weaker growth outlook and disinflation expectations

HICP inflation accelerated to 4.5% in July and then declined to 4.1% by September, while national CPI inflation – the indicator in which the inflation target is defined – even reached 4.8% before decreasing to 4.5% in September. At the end of September 2008, the Polish Monetary Policy Council (MPC) held the view that the high, albeit declining, annual growth of food and fuel prices and the accelerating energy prices were the main reasons why inflation would remain above the upper limit for deviations of Narodowy Bank Polski's CPI target (2.5% \pm 1 percentage point). National core inflation, which excludes food, fuel and energy prices, continued to accelerate, reaching 2.9% in September 2008. In its press release of September 24, the MPC held the view that wage and underlying inflationary pressures would ease in the medium term, given the slowdown in economic growth, previous rate hikes and earlier zloty appreciation. Thus, the MPC kept the key rate unchanged. Before that, the MPC had hiked the rate by a total of 200 basis points in several steps since April 2007 (roughly in line with the rise in core inflation).

Government pushes for euro adoption

While until recently, Polish officials had avoided indicating any target date for euro adoption, the government officially approved a euro adoption roadmap on October 28, 2008. According to this roadmap, Poland would enter ERM II in the first half of 2009 (after reaching agreement on the necessary constitutional changes), fulfil the convergence criteria in 2011, and introduce the euro on January 1, 2012.

Table 9

Main Economic Indicators: Poland

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 3.6 | 6.2 | 6.5 | 7.2 | 6.4 | 6.4 | 6.1 | 6.3 | 6.0 |
| Private consumption (excl. NPISH ¹) | 1.9 | 4.8 | 5.2 | 6.9 | 5.0 | 5.3 | 3.7 | 5.6 | 5.6 |
| Public consumption (incl. NPISH) | 5.2 | 5.8 | 0.7 | 0.8 | 1.0 | 0.8 | 0.1 | -1.1 | -1.6 |
| Gross fixed capital formation | 6.5 | 15.6 | 20.4 | 26.2 | 20.8 | 19.8 | 18.5 | 14.9 | 15.5 |
| Exports of goods and services | 8.0 | 14.6 | 9.0 | 11.7 | 6.5 | 9.3 | 8.8 | 13.2 | 7.2 |
| Imports of goods and services | 4.7 | 17.4 | 10.9 | 12.8 | 10.8 | 11.4 | 9.0 | 12.6 | 7.3 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand | 2.5 | 7.3 | 7.5 | 7.9 | 8.4 | 7.6 | 6.4 | 6.5 | 6.5 |
| Net exports of goods and services | 1.1 | -1.2 | -1.0 | -0.7 | -2.0 | -1.2 | -0.3 | 0.0 | -0.3 |
| Exports of goods and services | 3.0 | 5.4 | 3.6 | 4.7 | 2.7 | 3.8 | 3.4 | 5.5 | 3.0 |
| Imports of goods and services | 1.9 | 6.6 | 4.7 | 5.4 | 4.7 | 5.0 | 3.7 | 5.5 | 3.2 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity of industry (real) | 2.9 | 9.5 | 6.0 | 9.6 | 5.1 | 4.5 | 4.8 | 5.1 | 5.1 |
| Gross average wage of industry (nominal) | 3.2 | 5.2 | 8.7 | 8.3 | 8.5 | 8.8 | 9.3 | 10.4 | 11.2 |
| Unit labor cost of industry (nominal) | 0.3 | -4.0 | 2.6 | -1.2 | 3.2 | 4.1 | 4.3 | 5.0 | 5.8 |
| Producer price index (PPI) of industry | 0.7 | 2.2 | 2.2 | 3.1 | 2.0 | 1.6 | 2.2 | 3.0 | 2.5 |
| Consumer price index (here: HICP) | 2.2 | 1.3 | 2.6 | 2.0 | 2.3 | 2.4 | 3.7 | 4.5 | 4.3 |
| EUR per 1 PLN, + = PLN appreciation | 12.6 | 3.2 | 3.0 | -1.3 | 3.9 | 4.3 | 5.2 | 8.7 | 11.5 |
| <i>Period average levels</i> | | | | | | | | | |
| Unemployment rate (ILO definition, %, 15-64 years) | 18.0 | 14.1 | 9.7 | 11.4 | 9.7 | 9.1 | 8.6 | 8.2 | 7.2 |
| Employment rate (15-64 years) | 52.8 | 54.5 | 57.0 | 55.4 | 56.8 | 57.8 | 58.1 | 58.1 | 58.9 |
| Key interest rate per annum (%) | 5.3 | 4.1 | 4.4 | 4.0 | 4.3 | 4.6 | 4.9 | 5.4 | 5.8 |
| PLN per 1 EUR | 4.0 | 3.9 | 3.8 | 3.9 | 3.8 | 3.8 | 3.7 | 3.6 | 3.4 |
| <i>Nominal year-on-year change of the period average stock in %</i> | | | | | | | | | |
| Broad money (including foreign currency deposits) | 13.0 | 12.6 | 15.9 | 18.1 | 16.7 | 15.4 | 13.8 | 13.3 | 15.0 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | 5.5 | 1.7 | -5.7 | -0.9 | -5.2 | -7.3 | -8.8 | -11.5 | -10.6 |
| Domestic credit of the banking system | 5.2 | 12.0 | 20.8 | 20.7 | 21.0 | 21.1 | 20.3 | 21.6 | 23.4 |
| of which: claims on the private sector | 5.5 | 10.9 | 20.8 | 17.5 | 20.0 | 22.4 | 23.0 | 23.0 | 22.7 |
| claims on households | 5.6 | 8.6 | 13.8 | 12.3 | 13.3 | 14.6 | 14.9 | 14.8 | 14.7 |
| claims on enterprises | -0.1 | 2.3 | 7.0 | 5.2 | 6.7 | 7.8 | 8.1 | 8.2 | 8.0 |
| claims on the public sector (net) | -0.3 | 1.2 | -0.0 | 3.2 | 1.0 | -1.3 | -2.7 | -1.4 | 0.7 |
| Other domestic assets (net) of the banking system | 2.3 | -1.1 | 0.8 | -1.7 | 0.9 | 1.6 | 2.2 | 3.2 | 2.2 |
| <i>% of GDP, ESA 95</i> | | | | | | | | | |
| General government revenues ² | 39.0 | 40.0 | 40.4 | .. | .. | .. | .. | .. | .. |
| General government expenditures ² | 43.3 | 43.8 | 42.4 | .. | .. | .. | .. | .. | .. |
| General government balance ² | -4.3 | -3.8 | -2.0 | .. | .. | .. | .. | .. | .. |
| Primary balance ² | -1.5 | -1.1 | 0.6 | .. | .. | .. | .. | .. | .. |
| Gross public debt ² | 47.1 | 47.6 | 45.2 | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 17.9 | 20.3 | 12.8 | 13.4 | 12.7 | 13.1 | 12.0 | 21.3 | 20.4 |
| Merchandise imports | 13.4 | 23.9 | 17.9 | 19.5 | 19.7 | 16.7 | 16.2 | 21.2 | 21.9 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | -0.9 | -2.0 | -3.7 | -3.4 | -4.1 | -3.5 | -3.6 | -3.4 | -4.5 |
| Services balance | 0.2 | 0.2 | 0.9 | 0.9 | 0.7 | 0.6 | 1.4 | 0.6 | 0.3 |
| Income balance (factor services balance) | -2.2 | -2.8 | -3.0 | -3.2 | -3.5 | -2.4 | -3.1 | -3.3 | -3.5 |
| Current transfers | 1.6 | 1.9 | 2.0 | 2.1 | 2.2 | 2.2 | 1.6 | 1.1 | 1.8 |
| Current account balance | -1.2 | -2.7 | -3.7 | -3.6 | -4.6 | -3.1 | -3.7 | -4.9 | -6.0 |
| Capital account balance | 0.3 | 0.6 | 1.1 | 0.6 | 0.7 | 1.1 | 1.8 | 1.6 | 1.9 |
| Foreign direct investment (net) | 2.3 | 3.0 | 3.6 | 4.7 | 2.8 | 4.1 | 2.9 | 3.0 | 1.0 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 45.9 | 47.3 | 51.2 | 48.2 | 49.5 | 49.4 | 51.2 | 52.7 | 53.3 |
| Gross official reserves (excluding gold) | 14.1 | 12.9 | 13.8 | 13.1 | 13.5 | 13.3 | 13.8 | 14.5 | 14.8 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 4.5 | 3.7 | 3.8 | 3.7 | 3.7 | 3.6 | 3.8 | 4.0 | 4.1 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 244,775 | 272,199 | 309,303 | 68,894 | 74,065 | 76,109 | 90,235 | 82,232 | 90,540 |

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.

7 Romania: Medium-Term Sustainability Put to a Serious Test

Real GDP growth accelerated strongly in the first two quarters of 2008 compared with full-year 2007. In this respect, the global financial turbulence has not had a significant impact yet, but risks from intensified overheating and concerns about macrofinancial risks have increased noticeably. Romania is considered to be one of the more vulnerable countries in the region; the country's high internal and external imbalances are reflected in comparatively sharp increases of risk premia, a plunging stock market and a pronounced depreciation of the Romanian leu.

Unbalanced growth structure aggravates economic vulnerabilities

In the first half of 2008, the contribution of domestic demand to GDP growth remained substantial. Total consumption growth was higher than overall GDP growth (by more than 4 percentage points). Private consumption growth was supported by the still dynamic expansion of lending to households (+68% on average in the first half of 2008 in real terms), by the acceleration of real gross wage growth (around +15% on average in the first half of 2008) as well as favorable labor market developments. GFCF expanded by more than 30% year on year, largely driven by buoyant growth in the construction sector (+33% year on year). Export growth picked up, supposedly helped by the depreciation of the currency vis-à-vis the euro that started in mid-2007, and even outpaced import growth in the second quarter of 2008. Overall, however, the contribution of net exports to GDP growth turned out to be negative again.

High external imbalances are among the key issues of concern despite some improvement

Even though the goods and services balance improved somewhat in the first half of 2008 compared with the same period of 2007, the combined current and capital account is still deeply in the red. Higher FDI inflows in the second quarter of 2008 (boosted by privatizations) raised the FDI coverage ratio to 63.1% in the first half of 2008, compared with 45.8% in the same period of 2007. These inflows still cover the external deficit only partially.

In the first seven months of 2008, inflation peaked at more than 9% year on year in July, particularly due to higher administered prices, before moderating somewhat in August and September (at around 8.1% and 7.3%, respectively) owing to decelerating price increases for fuel and food – the main inflation drivers over the previous months. Core inflation (excluding volatile and administered prices) dropped, as well, but stayed at an elevated level, indicating demand-driven inflationary pressure and high inflation expectations, among other things. Notably, nominal ULC (whole economy) rose by more than 18% in the first half of 2008 compared with the first half of 2007, as wage growth outpaced productivity increases. Furthermore, the Romanian government hiked minimum wages as of October 2008 and raised public sector wages considerably. To combat inflationary pressures, Banca Națională a României (BNR) continued to increase its policy rate (by a total of 0.75 percentage points to 10.25% from April). The BNR revised upward its inflation forecast from 6.0% to 6.6% year on year for end-2008 (and from 3.5% to 4.2% for end-2009). To tackle another source of vulnerability – the high and rising share of foreign currency loans – the BNR raised the penalty rate for banks that fail to keep adequate minimum reserves in leu.

Fiscal policy unresponsive of counteracting economic strains

Large uncertainties are surrounding fiscal policy in Romania. The European Commission expects some loosening of the fiscal stance for 2008, and available information points to lavish fiscal spending in the run-up to the parliamentary elections November. Moreover, the decision to hike pensions by 20% also underlines that fiscal policy does not contribute to dealing with the risks the country faces regarding its large internal and external imbalances.

Table 10

Main Economic Indicators: Romania

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|--------|--------|---------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 4.2 | 7.9 | 6.1 | 6.1 | 5.7 | 5.7 | 6.6 | 8.2 | 9.3 |
| Private consumption | 9.9 | 12.5 | 11.0 | 12.3 | 12.3 | 10.1 | 10.1 | 15.5 | 13.4 |
| Public consumption | 8.1 | -2.4 | 5.5 | 6.3 | 6.8 | 4.9 | 4.8 | 3.0 | 3.1 |
| Gross fixed capital formation | 12.7 | 19.3 | 28.9 | 23.5 | 28.4 | 32.2 | 28.1 | 33.2 | 30.0 |
| Exports of goods and services | 7.7 | 10.6 | 8.7 | 12.0 | 3.5 | 4.8 | 14.9 | 24.6 | 26.9 |
| Imports of goods and services | 16.1 | 22.4 | 26.1 | 28.5 | 22.7 | 24.7 | 28.6 | 35.2 | 24.4 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand ¹ | 10.2 | 17.5 | 20.9 | 22.3 | 22.3 | 20.7 | 19.4 | 27.9 | 19.1 |
| Net exports of goods and services | -5.9 | -9.6 | -14.9 | -16.2 | -16.6 | -15.0 | -12.8 | -19.7 | -9.8 |
| Exports of goods and services | 3.2 | 4.6 | 3.9 | 6.9 | 1.7 | 2.0 | 5.4 | 14.9 | 13.1 |
| Imports of goods and services | 9.2 | 14.2 | 18.8 | 23.1 | 18.3 | 17.0 | 18.2 | 34.6 | 22.9 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity of industry (real) | 4.4 | 11.3 | 9.5 | 12.6 | 8.5 | 8.8 | 8.0 | 8.8 | 10.6 |
| Gross average wage of industry (nominal) | 16.9 | 15.7 | 21.6 | 20.7 | 21.7 | 20.9 | 22.8 | 18.5 | 24.5 |
| Unit labor cost of industry (nominal) | 12.0 | 4.0 | 11.0 | 7.2 | 12.2 | 11.1 | 13.7 | 9.0 | 12.6 |
| Producer price index (PPI) of industry | 10.8 | 11.7 | 8.1 | 9.4 | 7.5 | 6.1 | 9.3 | 14.4 | 17.2 |
| Consumer price index (here: HICP) | 9.1 | 6.6 | 4.9 | 3.9 | 3.9 | 5.1 | 6.8 | 8.0 | 8.6 |
| EUR per 1 RON, + = RON appreciation | 11.8 | 2.7 | 5.7 | 5.4 | 7.3 | 9.6 | 0.9 | -8.3 | -10.2 |
| <i>Period average levels</i> | | | | | | | | | |
| Unemployment rate (ILO definition, %, 15-64 years) | 7.5 | 7.6 | 6.7 | 7.4 | 6.8 | 6.3 | 6.4 | 6.6 | 5.9 |
| Employment rate (15-64 years) | 57.6 | 58.8 | 58.8 | 57.2 | 59.6 | 60.5 | 57.9 | 57.7 | 59.7 |
| Key interest rate per annum (%) | 11.7 | 8.5 | 7.5 | 8.4 | 7.6 | 6.8 | 7.3 | 8.5 | 9.7 |
| RON per 1 EUR | 3.6 | 3.5 | 3.3 | 3.4 | 3.3 | 3.2 | 3.4 | 3.7 | 3.7 |
| <i>Nominal year-on-year change of the period average stock in %</i> | | | | | | | | | |
| Money plus quasi money | 41.3 | 28.2 | 27.8 | 26.8 | 25.8 | 26.2 | 31.9 | 36.8 | 38.7 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | 17.4 | 1.5 | -6.0 | -2.8 | -3.8 | -5.3 | -11.3 | -8.6 | -10.9 |
| Domestic credit of the banking system | 9.9 | 31.1 | 39.7 | 33.3 | 34.4 | 36.7 | 52.6 | 60.7 | 62.6 |
| <i>of which: claims on the private sector</i> | 25.6 | 36.1 | 42.2 | 39.1 | 39.4 | 41.0 | 48.6 | 57.1 | 58.8 |
| <i>claims on households</i> | 13.2 | 19.0 | 23.3 | 21.5 | 21.1 | 22.5 | 27.4 | 31.6 | 32.5 |
| <i>claims on enterprises</i> | 12.4 | 17.1 | 19.0 | 17.6 | 18.3 | 18.5 | 21.2 | 25.5 | 26.3 |
| <i>claims on the public sector (net)</i> | -15.7 | -4.9 | -2.6 | -5.8 | -5.0 | -4.3 | 3.9 | 3.6 | 3.7 |
| Other domestic assets (net) of the banking system | 13.9 | -4.5 | -5.8 | -3.7 | -4.8 | -5.1 | -9.4 | -15.3 | -13.0 |
| <i>% of GDP, ESA 95</i> | | | | | | | | | |
| General government revenues | 32.3 | 33.1 | 34.4 | .. | .. | .. | .. | .. | .. |
| General government expenditures | 33.5 | 35.3 | 36.9 | .. | .. | .. | .. | .. | .. |
| General government balance | -1.2 | -2.2 | -2.5 | .. | .. | .. | .. | .. | .. |
| Primary balance | -0.1 | -1.4 | -1.8 | .. | .. | .. | .. | .. | .. |
| Gross public debt | 15.8 | 12.4 | 12.9 | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 17.6 | 16.4 | 12.8 | 12.1 | 11.0 | 12.3 | 15.8 | 14.6 | 22.2 |
| Merchandise imports | 24.0 | 25.5 | 24.5 | 33.4 | 25.5 | 23.1 | 18.4 | 12.5 | 17.5 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | -9.8 | -12.1 | -14.6 | -17.6 | -16.4 | -12.5 | -13.7 | -16.5 | -16.1 |
| Services balance | -0.4 | 0.0 | 0.0 | 1.0 | 0.2 | -0.3 | -0.4 | 0.3 | 1.7 |
| Income balance (factor services balance) | -2.9 | -3.3 | -3.9 | -5.6 | -5.1 | -3.2 | -3.0 | -4.7 | -5.0 |
| Current transfers | 4.5 | 4.9 | 4.1 | 5.1 | 4.9 | 4.5 | 2.7 | 6.0 | 4.3 |
| Current account balance | -8.6 | -10.4 | -14.5 | -17.1 | -16.3 | -11.5 | -14.4 | -14.9 | -15.0 |
| Capital account balance | 0.7 | -0.0 | 0.7 | 0.4 | 0.7 | 0.7 | 0.9 | 0.6 | 0.5 |
| Foreign direct investment (net) | 6.6 | 8.9 | 5.7 | 9.0 | 6.1 | 5.2 | 4.3 | 6.8 | 10.9 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 38.9 | 41.9 | 48.1 | 43.7 | 45.4 | 47.5 | 48.1 | 49.1 | 51.4 |
| Gross official reserves (excluding gold) | 21.1 | 21.8 | 20.9 | 21.3 | 20.8 | 22.2 | 20.9 | 20.2 | 19.5 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 5.8 | 5.9 | 5.6 | 5.6 | 5.4 | 5.8 | 5.6 | 5.4 | 5.1 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 79,739 | 97,898 | 121,212 | 20,360 | 26,553 | 34,354 | 39,946 | 23,516 | 29,851 |

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

¹ Including statistical discrepancy.

8 Slovakia: Growth Moderating to Still High Levels and Inflation Rising Somewhat in the Run-up to Euro Adoption

Economic growth returning to more sustainable levels

After an extraordinary surge toward the end of 2007, economic growth lost steam in the first half of 2008, coming in at 8.7% and 7.6% in the first and second quarter, respectively. This moderation can be traced to a declining growth contribution of the external sector. Export growth slowed given the appreciation of the Slovak koruna until May, weaker international demand and unfavorable base effects. Also stock changes exerted a substantial drag on growth, after a large-scale build-up of inventory toward the end of 2007. By contrast, the contribution of domestic demand remained broadly stable in the first two quarters and even increased when compared with full-year 2007. Private consumption profited from rising employment, dynamic real wage growth and robust credit growth. After a weaker development in the first quarter of 2008, GFCF growth recovered in the second quarter on the back of investment in both machinery and construction.

Gradual improvement of the current account comes to a halt

Following the large-scale build-up of predominately FDI-financed industrial capacity in previous years, the repatriation of profits increasingly weighs on the income balance of the balance of payments. Especially in the second quarter, the deterioration of the income balance put a brake on the gradual improvement of the combined capital and current account observed in 2007. Moreover, export growth moderated. However, import growth decelerated as well, which kept trade in goods roughly balanced in the first half of 2008, with the worsening in the second quarter being caused by adverse developments in the terms of trade, among other things. The rise in the combined capital and current account deficit in the second quarter of 2008 was increasingly financed by (short-term) other investments, while FDI coverage declined to around 30%.

Inflation accelerating amid rising domestic price pressures

Inflation increased slightly compared with previous months, coming in at 4.5% in September. The price hikes were caused, in roughly equal parts, by industrial goods, services, food, and energy. Also core inflation accelerated, reaching 4.3% year on year. Especially the rise in (whole-economy) ULC owing to a pick-up in wage growth indicates higher cost pressures on prices that could further intensify, given existing risks of second-round effects and tight labor market conditions. Despite the comparatively high unemployment rate, a further mobilization of labor in the short term seems difficult because of the high level of structural unemployment (long-term unemployment stands at over 70%) and pronounced regional disparities combined with low regional mobility. Národná banka Slovenska forecasts inflation to reach 4.0% year on year at the end of 2008.

Risks posed by financial turmoil lower owing to euro adoption

Up to the cutoff date for data, turbulence on international financial markets affected Slovakia only indirectly via lower export demand from important trading partners, and had relatively little impact on financial markets. External and exchange rate risks remained comparatively contained, as the EU Council adopted a decision allowing Slovakia to adopt the euro as its currency on January 1, 2009, following the convergence reports of the ECB and the European Commission from May 7. The irrevocable conversion rate was set at 1 EUR = 30.1260 SKK. This corresponds to the official central rate of the koruna in ERM II after the central parity had been revalued twice (by 8.5% in March 2007 and by 17.6% in May 2008). The revaluations were supported by ongoing improvements in underlying fundamentals. Since then, the koruna has traded steadily at a value of about 0.5% above the new parity.

Table 11

Main Economic Indicators: Slovakia

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 6.6 | 8.5 | 10.4 | 8.3 | 9.3 | 9.4 | 14.3 | 8.7 | 7.6 |
| Private consumption | 6.5 | 5.6 | 7.1 | 6.3 | 7.8 | 8.3 | 5.9 | 8.3 | 5.7 |
| Public consumption | 3.5 | 10.1 | 0.7 | 3.5 | -3.5 | 2.2 | 0.8 | 0.6 | 8.9 |
| Gross fixed capital formation | 17.6 | 8.4 | 7.9 | 11.0 | 5.9 | 6.5 | 8.9 | 2.4 | 9.6 |
| Exports of goods and services | 13.9 | 21.0 | 16.0 | 22.7 | 18.1 | 8.5 | 16.0 | 12.4 | 8.7 |
| Imports of goods and services | 16.1 | 17.7 | 10.4 | 14.5 | 13.2 | 3.0 | 11.6 | 14.2 | 9.0 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand | 8.7 | 6.8 | 6.1 | 2.8 | 4.9 | 4.6 | 11.6 | 8.9 | 7.5 |
| Net exports of goods and services | -2.1 | 2.3 | 5.4 | 7.5 | 4.8 | 5.5 | 4.1 | -0.9 | 0.2 |
| Exports of goods and services | 11.5 | 18.6 | 15.8 | 21.0 | 17.3 | 8.4 | 17.1 | 13.0 | 9.0 |
| Imports of goods and services | 13.6 | 16.3 | 10.3 | 13.4 | 12.4 | 3.0 | 13.0 | 13.9 | 8.7 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity of industry (real) | 0.6 | 11.3 | 10.0 | 9.8 | 10.8 | 10.1 | 9.2 | 4.4 | 4.5 |
| Gross average wage of industry (nominal) | 7.3 | 6.7 | 6.4 | 8.1 | 6.2 | 6.1 | 5.5 | 8.4 | 8.7 |
| Unit labor cost of industry (nominal) | 6.6 | -4.1 | -3.3 | -1.6 | -4.1 | -3.6 | -3.4 | 3.9 | 4.0 |
| Producer price index (PPI) of industry | 4.7 | 8.4 | 2.1 | 3.4 | 1.6 | 1.1 | 2.2 | 4.9 | 6.2 |
| Consumer price index (here: HICP) | 2.8 | 4.3 | 1.9 | 2.1 | 1.7 | 1.4 | 2.4 | 3.4 | 4.0 |
| EUR per 1 SKK, + = SKK appreciation | 3.7 | 3.7 | 10.2 | 9.1 | 11.7 | 12.7 | 7.5 | 3.9 | 7.5 |
| <i>Period average levels</i> | | | | | | | | | |
| Unemployment rate (ILO definition, %, 15-64 years) | 16.2 | 13.4 | 11.2 | 11.7 | 11.2 | 11.3 | 10.4 | 10.5 | 10.1 |
| Employment rate (15-64 years) | 57.7 | 59.4 | 60.7 | 60.1 | 60.4 | 60.7 | 61.6 | 61.3 | 61.7 |
| Key interest rate per annum (%) | 3.2 | 4.0 | 4.4 | 4.7 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 |
| SKK per 1 EUR | 38.6 | 37.2 | 33.8 | 34.3 | 33.8 | 33.6 | 33.4 | 33.1 | 31.4 |
| <i>Nominal year-on-year change of the period average stock in %</i> | | | | | | | | | |
| Broad money (including foreign currency deposits) | 5.0 | 5.5 | 14.8 | 15.2 | 16.7 | 14.9 | 12.5 | 10.8 | 7.6 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | -5.8 | 15.9 | -1.7 | 1.1 | -3.7 | -3.1 | -1.1 | 1.2 | -5.7 |
| Domestic credit of the banking system | 12.1 | 3.9 | 14.4 | 11.6 | 13.9 | 15.8 | 16.1 | 16.8 | 14.4 |
| of which: claims on the private sector | 8.1 | 16.1 | 15.0 | 15.1 | 13.9 | 15.4 | 15.4 | 17.0 | 16.9 |
| claims on households | 5.3 | 8.7 | 7.3 | 7.6 | 7.1 | 7.1 | 7.3 | 7.4 | 7.8 |
| claims on enterprises | 2.8 | 7.3 | 7.7 | 7.5 | 6.8 | 8.3 | 8.1 | 9.5 | 9.1 |
| claims on the public sector (net) | 4.0 | -12.1 | -0.5 | -3.5 | 0.0 | 0.4 | 0.7 | -0.2 | -2.5 |
| Other domestic assets (net) of the banking system | -1.3 | -14.3 | 2.1 | 2.5 | 6.5 | 2.2 | -2.5 | -7.3 | -1.1 |
| <i>% of GDP, ESA 95</i> | | | | | | | | | |
| General government revenues ¹ | 35.3 | 33.5 | 34.7 | .. | .. | .. | .. | .. | .. |
| General government expenditures ¹ | 38.1 | 37.2 | 36.9 | .. | .. | .. | .. | .. | .. |
| General government balance ¹ | -2.8 | -3.6 | -2.2 | .. | .. | .. | .. | .. | .. |
| Primary balance ¹ | -1.1 | -2.2 | -0.8 | .. | .. | .. | .. | .. | .. |
| Gross public debt ¹ | 34.2 | 30.4 | 29.4 | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 15.3 | 29.3 | 26.9 | 38.1 | 29.8 | 20.3 | 22.0 | 18.0 | 21.2 |
| Merchandise imports | 17.4 | 27.7 | 21.4 | 27.7 | 25.5 | 15.5 | 18.3 | 16.7 | 21.5 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | -5.0 | -4.6 | -1.2 | 0.4 | -1.8 | 0.0 | -3.0 | 1.3 | -2.0 |
| Services balance | 0.7 | 1.4 | 0.7 | 0.3 | 1.3 | 0.9 | 0.4 | -0.6 | -0.6 |
| Income balance (factor services balance) | -4.1 | -3.7 | -4.3 | 0.3 | -5.9 | -5.6 | -5.3 | -0.8 | -7.3 |
| Current transfers | 0.0 | -0.1 | -0.6 | -1.0 | -0.7 | -0.9 | 0.1 | -1.3 | -1.3 |
| Current account balance | -8.4 | -7.0 | -5.4 | -0.1 | -7.2 | -5.6 | -7.9 | -1.4 | -11.3 |
| Capital account balance | -0.0 | -0.1 | 0.6 | 1.0 | 0.3 | 0.1 | 1.1 | 0.9 | 2.3 |
| Foreign direct investment (net) | 4.1 | 6.8 | 3.6 | -0.8 | 5.7 | 4.6 | 4.1 | -1.2 | 3.4 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 59.6 | 54.8 | 54.9 | 56.5 | 54.9 | 53.6 | 54.9 | 54.8 | 59.7 |
| Gross official reserves (excluding gold) | 32.7 | 21.6 | 22.4 | 25.4 | 25.5 | 23.8 | 22.4 | 21.1 | 20.1 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 4.9 | 3.0 | 3.1 | 3.5 | 3.5 | 3.3 | 3.1 | 2.9 | 2.8 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 38,482 | 44,628 | 54,868 | 12,190 | 13,445 | 14,368 | 14,865 | 14,288 | 16,145 |

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

¹ Including the net costs of the pension reform.

9 Croatia: Slower but Solid Growth, Widening External Imbalances

Economic growth moderating amid slowing private consumption

Having reached one of the highest growth rates in a decade in 2007 (+5.6%), the Croatian economy lost some of its momentum in the first half of 2008 (+3.8%). This slowdown was mainly attributable to a moderate expansion of private consumption, which can be largely explained by a marked deceleration of credit growth and an inflation-driven slowdown in real net wage growth. Public consumption eased off somewhat after the election year 2007. In contrast, GFCF growth accelerated substantially, primarily driven by strong construction activity. Finally, slower export growth coupled with an unabatedly strong import propensity led to a sharp increase in the negative contribution of net exports to growth.

Supply-side factors drive inflation to a 14-year high in July, reversal more recently

Inflationary pressures continued to pick up in 2008, mainly driven by food and energy prices, and peaked in July at 8.4% year on year, the highest level recorded since September 1994. Inflation came down to 6.4% by September 2008, against the background of easing food and energy prices and a strong base effect. Hrvatska narodna banka (HNB) forecasts an average inflation of 7% for 2008. In order to contain inflationary pressures, the HNB continued to further restrain credit growth (by implementing restrictive administrative and prudential measures), but it also tightened minimum reserve regulations by excluding banks' vault cash from qualifying as minimum reserves. With this step (effective as of October 9, 2008) the HNB primarily aimed at sterilizing excess liquidity created by the public bid Hungary's oil company MOL submitted for a 31% stake in its Croatian counterpart INA, in a deal worth some EUR 1.3 billion, which was feared would create additional inflationary pressures. However, in mid-October the HNB abolished the marginal reserve requirement applied since August 2004, thereby partly offsetting the restrictive measures taken before, so as to boost banks' foreign exchange liquidity against the background of tighter global credit conditions.

Sustained capital inflows cause appreciation pressures

The MOL-INA deal, continued strong external borrowing by the corporate sector, and a good tourism season generated a strong demand for Croatian kuna and led to a relatively strong appreciation against the euro particularly from mid-August (despite the tightly managed float), which is expected to be supportive of the disinflation process. Thus far, the kuna remained largely unaffected by the global financial market turbulence. Negative global investor sentiment was, however, felt strongly on the stock market, and risk premia grew considerably.

External imbalances continue to widen

In a more fragile global environment, FDI inflows slowed somewhat in the first half of 2008, reaching 9.2% of GDP (the MOL-INA deal will materialize only in the second half of 2008), down from 12.4% of GDP in the corresponding period of 2007. At the same time, the country's external imbalances continued to widen. The combined capital and current account deficit reached some 22% of GDP in the first half of 2008, up from 19% of GDP in the same period of 2007, mainly owing to a widening trade deficit (that was driven primarily by a higher energy bill), but also to a higher deficit on the income balance on account of increased profit repatriation (mainly dividend and interest income). Given the above, Croatia's foreign debt rose by some EUR 2 billion in the first half of 2008, reaching around 90% of rolling four-quarter GDP, with corporations' external borrowing continuing to be the driving force. Croatia's foreign exchange reserves increased to EUR 9.9 billion by mid-2008, corresponding to a five-month import cover.

Table 12

Main Economic Indicators: Croatia

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|--------|--------|--------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 4.3 | 4.8 | 5.6 | 7.0 | 6.6 | 5.1 | 3.7 | 4.3 | 3.4 |
| Private consumption | 3.4 | 3.5 | 6.2 | 7.1 | 6.5 | 6.2 | 5.0 | 4.3 | 2.2 |
| Public consumption | 0.8 | 2.2 | 3.4 | 2.8 | 2.7 | 4.4 | 3.7 | 0.5 | 3.2 |
| Gross fixed capital formation | 4.9 | 10.9 | 6.5 | 11.2 | 5.8 | 5.7 | 4.0 | 9.8 | 12.6 |
| Exports of goods and services | 4.6 | 6.9 | 5.7 | 3.0 | 8.9 | 7.3 | 2.1 | 3.8 | 4.6 |
| Imports of goods and services | 3.5 | 7.3 | 5.8 | 3.7 | 6.4 | 7.0 | 6.0 | 7.0 | 8.1 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand | 4.2 | 5.9 | 6.4 | 8.2 | 6.7 | 4.3 | 6.6 | 7.1 | 6.5 |
| Net exports of goods and services | 0.1 | -1.1 | -0.8 | -1.2 | -0.1 | 0.7 | -2.9 | -2.8 | -3.2 |
| Exports of goods and services | 2.2 | 3.4 | 2.9 | 1.2 | 4.1 | 4.9 | 1.0 | 1.5 | 2.2 |
| Imports of goods and services | 2.2 | 4.5 | 3.7 | 2.4 | 4.2 | 4.2 | 3.9 | 4.3 | 5.3 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity of industry (real) | 6.2 | 2.7 | 2.5 | 4.4 | 3.7 | 1.4 | 0.3 | 4.7 | 5.2 |
| Gross average wage of industry (nominal) | 5.3 | 7.5 | 5.5 | 6.2 | 5.1 | 5.9 | 4.9 | 7.6 | 7.2 |
| Unit labor cost of industry (nominal) | -0.8 | 4.7 | 3.0 | 1.7 | 1.4 | 4.5 | 4.6 | 2.7 | 1.9 |
| Producer price index (PPI) of industry | 3.1 | 2.9 | 3.4 | 2.0 | 2.5 | 3.8 | 5.5 | 7.7 | 8.8 |
| Consumer price index (here: CPI) | 3.4 | 3.2 | 2.8 | 1.5 | 2.1 | 2.9 | 4.9 | 6.0 | 6.6 |
| EUR per 1 HRK, + = HRK appreciation | 1.3 | 1.1 | -0.2 | -0.3 | -1.0 | 0.1 | 0.5 | 1.1 | 1.3 |
| <i>Period average levels</i> | | | | | | | | | |
| Unemployment rate (ILO definition, %, 15-64 years) | 13.0 | 11.5 | 9.6 | 11.4 | 9.3 | 8.6 | 9.9 | 10.2 | .. |
| Employment rate (15-64 years) | 55.0 | 55.6 | 57.2 | 55.4 | 56.9 | 58.9 | 57.4 | 56.0 | .. |
| Key interest rate per annum (%) | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 8.9 | 9.0 |
| HRK per 1 EUR | 7.4 | 7.3 | 7.3 | 7.4 | 7.4 | 7.3 | 7.3 | 7.3 | 7.3 |
| <i>Nominal year-on-year change of the period average stock in %</i> | | | | | | | | | |
| Broad money (including foreign currency deposits) | 9.5 | 14.0 | 17.9 | 20.0 | 20.1 | 17.5 | 14.6 | 15.0 | 12.9 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | -5.0 | -3.1 | 9.6 | 6.2 | 11.5 | 10.5 | 9.9 | 9.2 | 7.4 |
| Domestic credit of the banking system | 17.3 | 20.8 | 17.2 | 20.6 | 18.0 | 16.9 | 13.9 | 12.8 | 11.2 |
| of which: claims on the private sector | 13.2 | 20.2 | 19.6 | 22.3 | 22.2 | 18.8 | 15.9 | 13.8 | 11.5 |
| claims on households | 9.0 | 11.1 | 11.0 | 11.9 | 11.9 | 10.5 | 9.8 | 9.3 | 8.3 |
| claims on enterprises | 4.1 | 9.2 | 8.7 | 10.5 | 10.3 | 8.2 | 6.1 | 4.6 | 3.2 |
| claims on the public sector (net) | 4.1 | 0.6 | -2.4 | -1.7 | -4.2 | -1.8 | -1.9 | -1.0 | -0.3 |
| Other domestic assets (net) of the banking system | -2.7 | -3.8 | -8.9 | -6.8 | -9.4 | -9.8 | -9.2 | -7.0 | -5.7 |
| <i>% of GDP, ESA 95</i> | | | | | | | | | |
| General government revenues | .. | 37.8 | 36.4 | .. | .. | .. | .. | .. | .. |
| General government expenditures | .. | 40.3 | 38.0 | .. | .. | .. | .. | .. | .. |
| General government balance | -4.0 | -2.5 | -1.6 | .. | .. | .. | .. | .. | .. |
| Primary balance | -1.8 | -0.3 | 0.4 | .. | .. | .. | .. | .. | .. |
| Gross public debt | 43.7 | 40.8 | 37.7 | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 9.3 | 17.2 | 8.6 | 1.9 | 16.8 | 12.4 | 4.1 | 8.8 | 7.3 |
| Merchandise imports | 10.6 | 14.0 | 10.8 | 8.8 | 12.0 | 10.2 | 12.0 | 13.9 | 15.5 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | -24.0 | -24.4 | -25.2 | -25.4 | -27.1 | -22.4 | -26.0 | -27.0 | -29.9 |
| Services balance | 17.0 | 16.7 | 16.8 | 1.2 | 16.4 | 41.7 | 3.9 | 1.0 | 17.4 |
| Income balance (factor services balance) | -3.1 | -3.4 | -3.0 | -2.4 | -6.9 | -1.9 | -1.0 | -2.9 | -7.6 |
| Current transfers | 3.8 | 3.2 | 2.8 | 2.9 | 2.9 | 2.5 | 2.8 | 2.3 | 2.7 |
| Current account balance | -6.3 | -7.9 | -8.6 | -23.8 | -14.8 | 20.1 | -20.4 | -26.5 | -17.4 |
| Capital account balance | 0.2 | -0.4 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Foreign direct investment (net) | 4.1 | 7.5 | 9.2 | 14.9 | 10.2 | 5.1 | 7.5 | 11.1 | 7.6 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 82.3 | 85.6 | 87.8 | 86.2 | 86.8 | 85.2 | 87.8 | 90.7 | 89.2 |
| Gross official reserves (excluding gold) | 23.8 | 25.5 | 24.8 | 27.2 | 25.6 | 24.0 | 24.8 | 25.6 | 25.1 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 5.1 | 5.3 | 5.2 | 5.7 | 5.4 | 5.1 | 5.2 | 5.3 | 5.2 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 31,272 | 34,214 | 37,494 | 8,494 | 9,314 | 10,330 | 9,355 | 9,506 | 10,378 |

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

10 Turkey: Economic Momentum Weakening amid Political Uncertainty and Rising External Vulnerabilities

After a surprisingly strong performance in the first quarter of 2008, real GDP growth moderated to less than 2% year on year in the second quarter, its lowest rate in six years. This slowdown was attributable to weak domestic demand, as private consumption and particularly GFCF growth (slowdown in construction activity) decelerated sharply in the second quarter amid political uncertainty caused by the pending Constitutional Court (CC) decision on the status of the ruling AKP party and possibly also by tight monetary conditions as well as fiscal policy. As a result, import growth slowed markedly, thus leading again to a positive contribution of net exports to growth. Even though tensions between the CC and the military persist, the verdict announced on July 30 not to ban the AKP helped regain investor confidence. However, output performance continued to be subdued during the summer (industrial production remained weak, while capacity utilization in the manufacturing sector decreased), which pointed to an extended period of economic slowdown even before global financial market turbulence intensified in September. Declining demand from major European export markets implied a further reduction in real export growth. This weakening coupled with already low domestic demand increases the downside risks to growth expectations.

Financing of widening external deficit remains a source of concern

The large combined current and capital account deficit widened in the first half of 2008, while the coverage by FDI inflows declined to one-fifth (compared with almost three-fifth in the same period of 2007) mainly as a result of political uncertainty. Corporate borrowing accounted for the lion's share of external deficit financing. The share of short-term external debt in total gross external debt increased between end-March 2008 and June (driven by the private sector), which added further to concerns about the financing of the external deficit. Additionally, the financing conditions worsened given the global financial turmoil.

Inflation starting to respond to weaker economic environment

After peaking at 12.2% in July, monthly inflation rates started to fall, reaching 11.1% by September. Soaring oil and food prices as well as domestic factors that contributed with some lag to high inflation in the first half of 2008 have diminished recently. Single-digit inflation rates seem possible for the year as a whole, but the inflation target of 4% \pm 2 percentage points for December 2008 is out of reach. In an effort to anchor inflation expectations, Türkiye Cumhuriyet Merkez Bankası at the end of July raised its 2009 inflation target to 7.5% (\pm 2 percentage points) with a targeted decline by 1 percentage point in each of the two consecutive years. Furthermore, the central bank reversed its monetary stance and raised its main policy rate from 15.25% in May to 16.75% in July 2008. As regards upside inflation risks, the depreciation of the Turkish lira since September may – if it prevails – pass through more noticeably to inflation.

Increasing vulnerability to external shocks

The current global financial crisis and the political uncertainty starting in March 2008 have increased the country's vulnerability to external shocks. Euro-denominated eurobond yield spreads and credit default swap premia have widened since August 2007, by somewhat larger amounts than in other, comparable emerging market economies, given Turkey's high external borrowing requirement. In the second quarter of 2008, the exposure was driven by a substantial increase in short-term foreign loans to the private sector. In addition, the real economy will be influenced by the global slowdown (also from tightening global liquidity), on top of already subdued domestic dynamics.

Table 13

Main Economic Indicators: Turkey

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 8.4 | 6.9 | 4.6 | 8.1 | 4.1 | 3.3 | 3.6 | 6.7 | 1.9 |
| Private consumption | 7.9 | 4.6 | 4.1 | 3.4 | 1.8 | 6.5 | 4.6 | 7.6 | 2.8 |
| Public consumption | 2.5 | 8.4 | 6.5 | 7.0 | 13.5 | 4.2 | 2.7 | 5.6 | -3.7 |
| Gross fixed capital formation | 17.4 | 13.3 | 5.5 | 4.5 | 3.9 | 4.7 | 8.7 | 11.9 | -1.5 |
| Exports of goods and services | 7.9 | 6.6 | 7.3 | 13.3 | 9.8 | 4.6 | 3.3 | 12.2 | 2.3 |
| Imports of goods and services | 12.2 | 6.9 | 10.7 | 8.2 | 5.1 | 14.0 | 15.5 | 12.8 | 0.7 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand | 9.9 | 7.3 | 5.9 | 7.5 | 3.4 | 5.8 | 7.2 | 7.6 | 1.6 |
| Net exports of goods and services | -1.5 | -0.4 | -1.4 | 0.5 | 0.7 | -2.5 | -3.6 | -1.0 | 0.3 |
| Exports of goods and services | 1.8 | 1.5 | 1.7 | 2.9 | 2.2 | 1.1 | 0.8 | 2.8 | 0.5 |
| Imports of goods and services | 3.3 | 1.9 | 3.0 | 2.4 | 1.5 | 3.6 | 4.4 | 3.8 | 0.2 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity in manufacturing (real) | 6.0 | 6.7 | 2.6 | 5.1 | 0.5 | 1.1 | 4.0 | 3.7 | 2.4 |
| Gross average wage in manufacturing (nominal) | 12.2 | 11.5 | 9.4 | 8.0 | 8.9 | 10.9 | 9.9 | 8.9 | 10.3 |
| Unit labor cost in manufacturing (nominal) | 5.9 | 4.5 | 6.6 | 2.8 | 8.4 | 9.8 | 5.7 | 5.0 | 7.7 |
| Producer price index (PPI) of industry | 6.0 | 9.3 | 6.4 | 10.1 | 6.6 | 3.6 | 5.3 | 8.4 | 16.0 |
| Consumer price index (here: HICP) | 8.1 | 9.3 | 8.8 | 10.3 | 9.5 | 7.1 | 8.2 | 8.8 | 10.3 |
| EUR per 1 TRY, + = TRY appreciation | 5.9 | -7.3 | 1.3 | -13.3 | 2.5 | 8.1 | 8.8 | 2.5 | -8.6 |
| <i>Period average levels</i> | | | | | | | | | |
| Unemployment rate (ILO definition, %, 15-64 years) | .. | 8.6 | 8.7 | 9.8 | 7.8 | 8.1 | 9.0 | 10.5 | 8.0 |
| Employment rate (15-64 years) | .. | 45.9 | 45.8 | 43.6 | 47.2 | 47.6 | 44.9 | 43.3 | 47.4 |
| Key interest rate per annum (%) | 14.8 | 15.6 | 17.2 | 17.5 | 17.5 | 17.5 | 16.5 | 15.4 | 15.6 |
| TRY per 1 EUR | 1.7 | 1.8 | 1.8 | 1.8 | 1.8 | 1.8 | 1.7 | 1.8 | 2.0 |
| <i>Nominal year-on-year change of the period average stock in %</i> | | | | | | | | | |
| Broad money (including foreign currency deposits) | 21.1 | 41.3 | 18.7 | 23.3 | 17.0 | 18.3 | 16.7 | 17.8 | 19.8 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | 6.1 | 10.0 | 9.1 | 10.7 | 11.6 | 9.8 | 4.5 | 1.4 | -0.6 |
| Domestic credit of the banking system | 21.6 | 39.3 | 15.5 | 17.3 | 11.0 | 15.2 | 18.7 | 20.3 | 23.3 |
| of which: claims on the private sector | 19.3 | 31.7 | 16.7 | 19.8 | 15.2 | 15.2 | 16.7 | 18.4 | 21.2 |
| claims on households | 8.7 | 11.0 | 6.4 | 7.5 | 5.6 | 5.8 | 7.0 | 8.1 | 8.5 |
| claims on enterprises | 10.6 | 20.7 | 10.2 | 12.3 | 9.6 | 9.4 | 9.7 | 10.3 | 12.7 |
| claims on the public sector (net) | 2.2 | 7.6 | -1.1 | -2.5 | -4.2 | -0.1 | 1.9 | 1.9 | 2.1 |
| Other domestic assets (net) of the banking system | -6.7 | -8.0 | -5.9 | -4.7 | -5.6 | -6.7 | -6.5 | -3.9 | -2.9 |
| <i>% of GDP, ESA 95</i> | | | | | | | | | |
| General government revenues | .. | 13.6 | 19.6 | .. | .. | .. | .. | .. | .. |
| General government expenditures | .. | 13.7 | 20.9 | .. | .. | .. | .. | .. | .. |
| General government balance | -0.6 | -0.1 | -1.2 | .. | .. | .. | .. | .. | .. |
| Primary balance | 6.0 | 5.5 | 4.0 | .. | .. | .. | .. | .. | .. |
| Gross public debt | 52.3 | 46.1 | 38.8 | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 14.6 | 17.8 | 12.9 | 14.5 | 15.7 | 10.7 | 11.0 | 23.5 | 13.4 |
| Merchandise imports | 22.4 | 19.1 | 10.2 | 8.6 | 5.3 | 11.3 | 15.7 | 22.2 | 17.0 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | -6.9 | -7.8 | -7.1 | -6.7 | -7.3 | -7.3 | -6.9 | -6.5 | -8.8 |
| Services balance | 3.2 | 2.6 | 2.1 | 0.9 | 1.7 | 4.2 | 1.2 | 0.8 | 1.8 |
| Income balance (factor services balance) | -1.2 | -1.3 | -1.1 | -1.5 | -1.1 | -1.0 | -0.9 | -1.0 | -1.3 |
| Current transfers | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.2 |
| Current account balance | -4.6 | -6.1 | -5.7 | -6.9 | -6.4 | -3.7 | -6.3 | -6.5 | -8.0 |
| Capital account balance | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Foreign direct investment (net) | 1.9 | 3.6 | 3.1 | 6.2 | 1.7 | 2.4 | 2.6 | 1.9 | 1.2 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 36.8 | 37.3 | 34.9 | 38.0 | 37.8 | 36.0 | 34.9 | 33.2 | 35.6 |
| Gross official reserves (excluding gold) | 11.0 | 11.1 | 10.4 | 12.1 | 11.5 | 11.0 | 10.4 | 9.6 | 9.5 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 5.2 | 4.8 | 4.6 | 5.1 | 5.0 | 4.9 | 4.6 | 4.3 | 4.1 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 388,302 | 418,088 | 480,391 | 102,034 | 116,743 | 133,446 | 128,168 | 123,500 | 122,162 |

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

11 Russia: Financial Turmoil Trumps Macroeconomic Fundamentals

Buoyant economic growth coupled with severe liquidity and stock market crisis

A recent sharp oil price decline, the aggravation of the U.S. and global financial crisis, and the flare-up of political risk in connection with the conflict in Georgia led to accelerated capital outflows from Russia, a deep plunge of the Moscow stock exchange,¹³ and a severe liquidity crisis in the banking sector in September and October 2008. The vulnerability of the Russian financial system was heightened by its dependence on debt-creating capital inflows, by the widespread, but risky practice of pledging corporate shares to raise credit, and by sharply rising corporate debt levels.¹⁴ Notwithstanding the financial turmoil, Russian economic growth has – so far – remained buoyant. Given strongly rising oil prices in early 2008, real GDP expansion continued at 8.0% year on year in the first half of 2008, but eased in the second quarter and in the summer, largely because of mounting capacity constraints in an economy that already shows signs of overheating.

Growth again driven by internal demand and still unbalanced

Growth remained unbalanced, with domestic demand contributing almost 12 percentage points, and net exports removing 6 percentage points in the first half of 2008. Strong domestic demand and real effective exchange rate developments kept real imports growing much faster than real exports. The latter continue to suffer from bottlenecks in oil extraction and transportation and from very high taxation of oil firms. Despite expanding imports, Russia's combined current and capital account surplus reached 8% of GDP in the first nine months of the year. Competitiveness continues on a downward trend: While labor productivity grew by above 5% in the second quarter of 2008 (in real terms, year on year), industrial ULC rose by over one-fifth in the same period (in nominal terms).

Budget remains in surplus and inflation high

The high oil price in the first half of the year and higher-than-expected economic growth boosted fiscal performance. The federal budget surplus attained 8.7% of GDP in the period from January to August 2008. Fueled by rising prices of food, energy and housing, administered price adjustments as well as rising wages, CPI inflation remained relatively high (September: 15% year on year) despite repeated monetary tightening measures by the Central Bank of the Russian Federation (CBR), e.g. increases of reserve requirements and of key reference rates. The informal end-2008 inflation target was raised to 11.8% in July.

Russian authorities put together major financial package to shore up markets

Lavish export proceeds briefly pushed Russian foreign currency reserves (including gold) above the record EUR 400 billion mark at the beginning of September 2008. Foreign exchange reserves (including gold) declined to EUR 385 billion in mid-October as a result of substantial CBR interventions to prop up the Russian ruble, following accelerating capital outflows brought about by higher political risk as well as the financial meltdown. In the two months until October 5, 2008, the nominal exchange rate declined by 11% against the U.S. dollar, while rising slightly (by 2%) against the euro. The real effective exchange rate continued to rise steadily, coming to 4.6% at end-September 2008 (year on year). With some hesitation, the authorities in late September and early October put together a strong package (estimated at a total of about EUR 150 billion) to inject liquidity and shore up markets. But a number of banks, particularly small and medium-sized institutions, have witnessed stepped-up deposit withdrawals lately. So far, the authorities bailed out three medium-sized banks.

¹³ Trading was suspended on several occasions.

¹⁴ Small and medium-sized domestically-owned private banks seemed to be exposed the most to potential financial problems; state-owned and foreign-owned banks are likely to have potent financial backers.

Table 14

Main Economic Indicators: Russia

| | 2005 | 2006 | 2007 | Q1 2007 | Q2 2007 | Q3 2007 | Q4 2007 | Q1 2008 | Q2 2008 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <i>Year-on-year change of the period total in %</i> | | | | | | | | | |
| GDP in constant prices | 6.4 | 7.3 | 8.1 | 7.4 | 8.0 | 7.3 | 9.5 | 8.5 | 7.5 |
| Private consumption | 11.2 | 11.0 | 12.6 | 12.2 | 12.6 | 12.7 | 13.0 | 13.9 | 12.0 |
| Public consumption | 1.3 | 2.5 | 5.0 | 5.7 | 5.4 | 4.0 | 5.0 | 2.3 | 2.3 |
| Gross fixed capital formation | 10.6 | 17.7 | 20.8 | 22.0 | 23.6 | 17.9 | 20.6 | 19.4 | 12.9 |
| Exports of goods and services | 6.5 | 7.3 | 6.4 | 3.7 | 5.3 | 4.3 | 11.3 | 14.4 | 5.4 |
| Imports of goods and services | 16.6 | 21.9 | 27.3 | 28.4 | 28.9 | 26.4 | 26.1 | 27.3 | 22.6 |
| <i>Contribution to GDP growth in percentage points</i> | | | | | | | | | |
| Domestic demand | 8.2 | 10.6 | 13.6 | 12.4 | 13.9 | 13.0 | 14.7 | 11.0 | 12.2 |
| Net exports of goods and services | -2.2 | -3.9 | -7.0 | -7.5 | -7.5 | -7.2 | -5.8 | -4.9 | -6.9 |
| Exports of goods and services | 2.4 | 2.7 | 2.4 | 1.4 | 2.0 | 1.4 | 4.4 | 5.4 | 1.9 |
| Imports of goods and services | 4.5 | 6.6 | 9.3 | 9.0 | 9.5 | 8.6 | 10.2 | 10.3 | 8.9 |
| <i>Year-on-year change of the period average in %</i> | | | | | | | | | |
| Labor productivity of industry (real) ¹ | 8.6 | 10.1 | 4.7 | 5.8 | 5.6 | 3.6 | 3.7 | 5.9 | 5.6 |
| Gross average wage of industry (nominal) ¹ | 21.1 | 21.4 | 26.0 | 25.8 | 24.5 | 24.8 | 28.5 | 27.6 | 28.1 |
| Unit labor cost of industry (nominal) ¹ | 11.5 | 10.3 | 20.4 | 18.9 | 17.9 | 20.5 | 23.9 | 20.5 | 21.3 |
| Producer price index (PPI) of industry | 20.6 | 12.5 | 14.3 | 8.9 | 13.3 | 13.7 | 20.7 | 25.7 | 26.4 |
| Consumer price index (here: CPI) | 12.6 | 9.7 | 9.0 | 7.8 | 7.9 | 8.9 | 11.5 | 12.9 | 14.9 |
| EUR per 1 RUB, + = RUB appreciation | 1.7 | 3.2 | -2.6 | -1.8 | -2.0 | -2.4 | -4.0 | -5.1 | -5.6 |
| <i>Period average levels</i> | | | | | | | | | |
| Unemployment rate (ILO definition) | 7.6 | 7.2 | 6.1 | 7.0 | 6.0 | 5.6 | 5.8 | 6.7 | 5.6 |
| Employment rate | .. | .. | .. | .. | .. | .. | .. | .. | .. |
| Key interest rate per annum (%) | 13.0 | 11.6 | 10.3 | 10.6 | 10.4 | 10.0 | 10.0 | 10.2 | 10.5 |
| RUB per 1 EUR | 35.2 | 34.1 | 35.0 | 34.5 | 34.9 | 35.0 | 35.7 | 36.3 | 36.9 |
| <i>Nominal year-on-year change of the period average stock in %</i> | | | | | | | | | |
| Broad money (including foreign currency deposits) | 33.9 | 37.0 | 44.7 | 42.4 | 48.6 | 43.9 | 43.8 | 43.1 | 32.2 |
| <i>Contributions to the year-on-year change of broad money in percentage points</i> | | | | | | | | | |
| Net foreign assets of the banking system | 34.0 | 30.8 | 31.3 | 29.3 | 33.6 | 30.6 | 31.7 | 29.8 | 21.1 |
| Domestic credit of the banking system | 0.4 | 11.8 | 22.8 | 20.5 | 24.5 | 22.5 | 23.4 | 25.9 | 20.6 |
| of which: claims on the private sector | 30.0 | 36.4 | 45.6 | 42.5 | 45.4 | 46.2 | 47.6 | 45.3 | 42.3 |
| claims on households | 8.8 | 12.0 | 12.7 | 12.8 | 12.8 | 12.7 | 12.5 | 11.9 | 11.4 |
| claims on enterprises | 21.2 | 24.4 | 32.9 | 29.8 | 32.6 | 33.5 | 35.1 | 33.4 | 30.9 |
| claims on the public sector (net) | -29.6 | -24.6 | -22.8 | -22.1 | -20.9 | -23.7 | -24.2 | -19.3 | -21.7 |
| Other domestic assets (net) of the banking system | -0.2 | -5.9 | -9.4 | -7.4 | -9.5 | -9.2 | -11.2 | -12.7 | -9.6 |
| <i>% of GDP</i> | | | | | | | | | |
| General government revenues | 39.7 | 39.7 | 40.2 | .. | .. | .. | .. | .. | .. |
| General government expenditures | 31.6 | 31.3 | 34.1 | .. | .. | .. | .. | .. | .. |
| General government balance | 8.2 | 8.4 | 6.1 | .. | .. | .. | .. | .. | .. |
| Primary balance | 9.1 | 9.2 | .. | .. | .. | .. | .. | .. | .. |
| Gross public debt, general government | 14.9 | 9.0 | .. | .. | .. | .. | .. | .. | .. |
| <i>Year-on-year change of the period total (based on EUR) in %</i> | | | | | | | | | |
| Merchandise exports | 33.8 | 22.6 | 6.7 | -2.3 | 2.1 | 4.0 | 22.0 | 34.5 | 31.0 |
| Merchandise imports | 29.7 | 28.5 | 24.6 | 27.1 | 26.9 | 27.0 | 19.2 | 23.1 | 23.0 |
| <i>% of GDP (based on EUR), period total</i> | | | | | | | | | |
| Trade balance | 15.5 | 14.1 | 10.1 | 11.3 | 10.3 | 9.0 | 10.2 | 13.7 | 11.9 |
| Services balance | -1.8 | -1.4 | -1.5 | -1.3 | -1.5 | -1.8 | -1.4 | -1.3 | -1.5 |
| Income balance (factor services balance) | -2.5 | -3.0 | -2.4 | -1.2 | -4.0 | -2.4 | -2.1 | -2.0 | -4.4 |
| Current transfers | -0.1 | -0.2 | -0.3 | -0.2 | -0.1 | -0.3 | -0.4 | -0.2 | -0.0 |
| Current account balance | 11.0 | 9.6 | 5.9 | 8.7 | 4.8 | 4.4 | 6.2 | 10.3 | 6.0 |
| Capital account balance | -1.7 | 0.0 | -0.8 | -0.3 | 0.1 | 0.0 | -2.4 | -0.0 | 0.1 |
| Foreign direct investment (net) | -0.0 | 0.7 | 0.7 | 4.8 | -3.6 | 0.1 | 1.7 | 1.1 | 1.7 |
| <i>% of GDP (rolling four-quarter GDP, based on EUR), end of period</i> | | | | | | | | | |
| Gross external debt | 36.0 | 30.4 | 33.8 | 32.2 | 34.3 | 34.3 | 33.8 | 30.5 | 32.0 |
| Gross official reserves (excluding gold) | 24.0 | 28.5 | 33.8 | 30.6 | 34.9 | 33.1 | 33.8 | 32.0 | 33.7 |
| <i>Months of imports of goods and services</i> | | | | | | | | | |
| Gross official reserves (excluding gold) | 13.4 | 16.2 | 18.6 | 17.1 | 19.2 | 18.0 | 18.6 | 17.7 | 18.7 |
| <i>EUR million, period total</i> | | | | | | | | | |
| Gross domestic product in current prices | 616,304 | 787,591 | 940,840 | 195,837 | 222,298 | 251,980 | 270,725 | 243,429 | 278,246 |

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.

CESEE not Spared from Global Downturn

Momentum Moderating, but Growth Differential to the Euro Area Remains Considerable; Risks Tilted to the Downside

Following a prolonged period of economic expansion which lasted well into the first half of 2008, clear signs of economic moderation became visible in CESEE countries in the third quarter. In line with a weakening of external demand, especially owing to the slowdown of economic activity in the euro area, and tighter external financing conditions, important leading indicators have deteriorated sharply since the end of the second quarter, pointing to a pronounced deceleration of growth in the second half of 2008 and in 2009. This is very much in line with the forecasts for Western industrialized countries, albeit still on a much higher level reflecting the ongoing catching-up process in the region.

Industrial output growth was still robust in the first half of 2008 (+5.5% year on year on average for the region), but turned negative in August (-0.7% year on year on average for the region). Such a steep decline was already indicated in May, when industrial confidence measured by the European Commission's Business and Consumer Survey decreased noticeably in a number of CESEE countries. By October, industrial confidence reached especially low levels in the CEE-5. Besides industrial output and industrial confidence, also recent changes in the growth of credit to nonfinancial corporations and changes in capacity utilization point to weakening industrial dynamics. The level of capacity utilization, however, remains comparatively high by historical standards.

Export orders recently fell below long-term average levels, which clearly documents a worsening of external demand conditions. According to data collected by the European Commission's Business and Consumer Survey, export expectations for the fourth quarter of 2008 declined as well, and in the Czech Republic, Hungary and a number of other CESEE countries, a majority of exporters already expects export orders to decline over the coming months. A quick recovery of external demand therefore seems highly improbable.

When compared with the first half of 2008, also growth rates of retail sales declined somewhat. This drop, however, was far less pronounced than the decrease in industrial output; in August, retail sales still grew at a robust rate (5.2% year on year on average) in the CESEE countries. However, consumer sentiment deteriorated substantially over the past months and stood at especially low levels in Hungary and some other CESEE countries. This should be seen against the backdrop of a slower expansion of consumer credit and less favorable labor market prospects than in the past. All these factors are expected to weigh on consumer spending in the near future.

Recent projections of economic growth for important CESEE countries clearly reflect the worsening sentiment and leading indicators. In 2008, the Czech Republic, Poland, and Russia are expected to grow at a substantially slower pace than in 2007. The moderation is anticipated to extend well into 2009, with some recovery by year-end. Forecasts are somewhat different for Hungary: Growth is seen to accelerate slightly in 2008, albeit from a very low level. According to the most recent forecasts by the European Commission and the wiiw, however, growth will weaken in 2009. Generally, the deterioration of economic conditions in these countries is reflected more clearly now than in previous forecasts, as projections were revised mostly (and in some cases considerably) downward. However, it has to be kept in mind that compiling forecasts takes several weeks, and therefore the most recent (mainly negative) global developments are not considered.

Weaker growth forecasts reflect lower expected demand from Western Europe, which in turn is seen to dampen exports and investment, diminishing capital inflows as well as eroding real disposable incomes in the CESEE countries owing to still high inflation and debt servicing cutting into consumption. This applies in particular to those countries with a high share of foreign currency lending that recently experienced a sizeable appreciation of the nominal exchange rate.

Risks to the growth outlook are significant and tilted to the downside. The main risks include a deterioration of external financing conditions in the wake of the international financial turmoil, a stronger-than-expected weakening of external demand and the possibility of disruptive exchange rate developments.

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.

Studies

Real Estate, Construction and Growth in Central and Eastern Europe: Impact on Competitiveness?

Balázs Égert,¹
Reiner Martin²

This paper studies recent developments in the construction sector in Central and Eastern Europe (CEE) against a number of benchmarks including a set of mature OECD countries. In addition to analyzing the recent rapid increase in the importance of the construction sector in CEE countries, the paper also asks whether rapid growth in this sector may have negative implications for the long-term competitiveness of the CEE economies. In order to address this question, we look at negative Dutch disease-style repercussions on the manufacturing sector by the recent strong growth in construction in the CEE countries. We find some tentative evidence for such effects although the strong growth of the construction sector in the CEE countries is a rather recent phenomenon.

1 Introduction

Most CEE countries experienced rapid economic growth and real convergence in recent years. One of the drivers of this growth was the rapid expansion of the construction sector – in particular, but not only, in the Baltic countries.³

This rapid expansion was mainly stoked by strong growth in real estate prices, the inflow of FDI in the real estate and construction sectors and the relatively large share of public (infrastructure) investment. These factors are in turn linked to the relatively low housing and infrastructure endowment in the CEE countries, as regards both the quality and quantity of dwellings and infrastructure.

Recent information provides mixed evidence across countries as to how long the growth in the construction sector will continue. While some (Baltic) CEE countries show a clear slowdown in the prices for real estate, in particular residential real estate, these prices are still growing in other CEE countries. In addition, considerable inflows of funds granted in the context of the EU's Cohesion Policy are likely to further stoke growth in public construction works in the CEE countries over the coming years, given that a significant share of these funds will be used for infrastructure investments.⁴

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³ In this study, we analyze 11 CEE countries, namely Bulgaria, the Czech Republic, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Romania, Slovenia and Slovakia. The choice of countries – also for the different subsections of this paper – has been largely determined by the availability of data. In particular, it would have been desirable to include more Southeastern European countries. Due to data limitations, this was, however, not possible.

⁴ For the period from 2007 to 2013, the CEE countries can expect to receive financial support by the EU that equals around 2.4% of their GDP per year on average (European Commission, 2007). As a rough estimate, up to 50% of these funds can be expected to be used for infrastructure investments, which in turn are largely used to fund construction activities. See also ECB (2008) and Kamps, Leiner-Killinger and Martin (2009).

In this paper, we analyze the recent increase in the importance of the construction sector in the CEE countries and compare these developments with the situation in the euro area and in Ireland and Spain, two “old” EU countries that – irrespective of the current sharp slowdown in their real estate markets – experienced very rapid growth in the construction sector in recent years. In addition, we also examine whether rapid growth in this sector may have negative implications for the long-term competitiveness of the CEE economies. The question we seek to answer in this context is whether rising real estate prices and the resulting increase in the construction sector may have detrimental Dutch disease-style effects for the long-term competitiveness of the manufacturing (and services) sector.⁵

The Dutch disease framework can, of course, not be applied one to one to the possible problems associated with a construction-led period of rapid growth. Dutch disease-style effects due to strong growth in the construction sector, however, may result in comparable resource movement and spending effects, thus negatively affecting the international competitiveness of the economy and causing the manufacturing sector to shrink. Once the expansion of the construction sector draws to a close, e.g. owing to a saturation of the real estate market and adequate infrastructure improvements, the resulting contraction of the construction sector may cause a more widespread downturn of the economy.⁶ This risk is particularly pronounced if the competitiveness of the export-oriented sector has suffered during the construction-led economic boom and if the economy is not sufficiently flexible to adjust rapidly, e.g. if considerable downward wage rigidity prevents the export-oriented sector of the economy from rapidly regaining its competitiveness.⁷

The strong growth in the construction sectors of CEE countries is a rather recent phenomenon, which reduces the likelihood that we find already now clear empirical answers to the questions presented above. Nevertheless, this study also develops econometrically testable relationships with regard to the transmission of the resource movement and spending effects on the relative prices of nontradables and the resulting deindustrialization, i.e. a shrinking manufacturing sector relative to the rest of the economy. We focus on CEE countries and a set of mature OECD countries that may provide a benchmark in the longer run.⁸

⁵ Recent applications of the Dutch disease framework can be found in Oomes and Kalcheva (2007) and Beck, Kamps and Mileva (2007) for Russia and in Égert and Leonard (2008) for Kazakhstan.

⁶ Looking at the economic performance of Ireland and Spain, Ahearne, Delgado and von Weizsäcker (2008), for example, emphasise the role of the housing boom and the subsequent slump in residential investment in the recent economic downturn. For a more general analysis of the role of asset prices in boom-bust cycles, see Martin, Schuknecht and Vansteenkiste (2007).

⁷ Indicators for labor market flexibility in the CEE countries available e.g. from Eurostat, the Fraser Institute and the World Bank provide a mixed picture. Taking the euro area as – admittedly imperfect – benchmark, the CEE countries’ institutional features tend to be more supportive of wage flexibility and some aspects of “numerical” flexibility. At the same time, non-standard types of employment, working time flexibility or regional mobility tend to be less pronounced on average in the CEE countries than in the euro area.

⁸ An alternative natural benchmark would be emerging market economies, e.g. in Asia or Latin America. The lack of comparable data on housing markets in these countries, however, makes it very difficult to identify suitable countries.

The remainder of the paper is organized as follows. Section 2 discusses in more detail how and to what extent a fast-growing construction sector may produce Dutch disease-style effects in terms of resource reallocation and relative price adjustments. In section 3, we move on to develop the testable relationships and describe our dataset and estimation strategy. Section 4 presents stylized facts with regard to house price and construction developments in a number of CEE countries as well as Ireland and Spain, while section 5 presents our estimation results. Finally, we conclude by summing up and by drawing the policy conclusions emerging from our analysis.

2 Can the Expansion of the Construction Sector Cause Dutch Disease-Style Competitiveness Effects?

In a country that is rich in natural resources, rising commodity prices can trigger a chain of events that may ultimately lead to a mighty commodity sector and a shrunken manufacturing sector. Analogously, a rapid increase in real estate prices, specifically in the residential and commercial property market, together with large infrastructure investments may generate a dominant construction sector.⁹ This is, however, not conditioned on prior economic structures – unlike in resource abundant economies – and could potentially be at work in any country.

Rising real estate prices and large infrastructure projects encourage more investment in the construction sector – as the supply of construction investment bears a positive relation to prices – so that more people can be hired. As a result, wages will rise in the construction sector, thus attracting labor from other sectors of the economy. Corden (1984) coins this phenomenon the (direct) resource movement effect, which results in direct deindustrialization. In addition, an indirect resource movement effect may occur if the relative price of (non-construction) nontradables relative to that of tradables rises as a result of the expansion of the construction sector, drawing more labor to the (non-construction) nontradables sector.

There are two good reasons why the relative price of (non-construction) nontradable goods may rise as a result of a construction boom. The first reason is the increase in nominal and real wages in the construction sector. If wages tend to equalize across sectors, this will also lead to higher wages in other sectors of the economy. This outcome is also predicted by the traditional Balassa-Samuelson (BS) effect.¹⁰ Second, the relative price of (non-construction) nontradables rises in the event that higher profits and wages in the construction sector are spent on nontradable goods (*spending effect*).¹¹

One consequence of the above-mentioned rise in the relative prices of (construction as well as non-construction) nontradable goods is the appreciation of the real exchange rate. However, this increase can overlap with the BS effect due to

⁹ This analogy holds to the extent that commodity prices and real estate prices follow cycles.

¹⁰ It is worthwhile noting that other sectors may also lead the wage-setting process. The Balassa-Samuelson (BS) model and the Dutch disease models assume that the tradable sector and the commodity sector, respectively, are the wage setter. In practice, large wage hikes in the public sector may also affect other parts of the economy.

¹¹ Assuming that the income elasticity of demand for (non-construction) nontradables is positive.

Table 1

Dutch Disease Effects Caused by a Strong Expansion of the Construction Sector

Stages

1. Increase in the relative size of the construction sector (caused by strong growth in real estate prices or infrastructure development)
2. Labor reallocation
 - Labor moves from other sectors to the construction sector
 - Labor moves from other sectors (except construction) to non-construction services
3. Wages rise in the construction sector
 - Wages rise in the rest of the economy
 - (Non-construction) Relative prices rise
4. Appreciation of the real exchange rate
5. Relative decline in manufacturing

Source: Authors' compilation.

productivity gains in the manufacturing sector.¹² This appreciation – irrespective of whether it comes from the construction sector or from the BS effect – can be regarded as harmless with regard to competitiveness as long as the real exchange rate for tradable goods (the manufacturing sector) remains untouched. If productivity gains in manufacturing are, however, insufficient to dampen the real exchange rate appreciation affecting the manufacturing sector (and generated by the wage equalization process), the manufacturing sector is likely to lose competitiveness. This in turn is expected to manifest itself in a decline in output and employment.¹³

Another source of real exchange rate appreciation of the manufacturing sector can be the appreciation of the nominal exchange rate due to the inflow of foreign capital, a spin-off of the rise in investment in the construction sector.

Table 1 below summarizes the main characteristics of a strong expansion of the construction sector that in turns produces Dutch disease-style competitiveness effects.

3 Testable Relationships

Rapid growth in the construction sector implies that the relative price of nontradable goods to that of tradable goods increases ($\Delta(p^{NT} / p^T)$) because labor moves to the construction sector and because relatively more income generated in the construction sector is spent on nontradables. In addition to that, (i) the BS effect may overlap with these factors, (ii) the relative price of nontradables can increase due to a more general economic catching-up process that implies that households

¹² If wage increases originating from the construction sector are higher than those in the manufacturing sector that are linked to productivity increases, the construction sector would dominate the BS effect.

¹³ It should be noted that the share of the (non-construction) nontradable sector in GDP and in total employment should decrease according to the resource movement effect and it should increase according to the spending effect (see Oomes and Kalcheva, 2007). Note, however, that an increase in the share of nontradables in total employment may also occur if productivity gains are higher in manufacturing than in the nontradable sector. The resulting rise in nontradable prices (BS effect) gives rise to an increase in the share of nontradables in GDP at current prices. This is something which can be observed in many advanced countries over time (Rowthorn and Ramaswamy, 1997).

spend more money on nontradables as they grow richer, and (iii) services prices will grow faster in countries with initially lower services price levels.¹⁴

From an empirical viewpoint, we need to identify variables that capture the above-listed effects. The *resource movement effect* is reflected in the change in relative employment between the construction sector (C) and the services sector (NT) ($\Delta(\frac{emp^C}{emp^{NT}})$). The *spending effect* is based on the idea that higher wage income in the expanding construction sector and the associated improvements in the labor market as a whole are spent on services. This could be captured by the nominal wage increase in the construction sector relative to that in manufacturing (T) ($\Delta(\frac{w^C}{w^T})$) or to the rest of the economy ($\Delta(\frac{w^C}{w^{T+NT}})$). We use the changes in the productivity differential to account for the BS effect ($\Delta(\frac{prod^T}{prod^{NT}})$). Other catching-up effects related, for instance, to mismeasured quality improvements may be captured by the evolution in per capita income ($\Delta(capita)$), and we use the relative price level of consumer services in 1999 (the first year for which Eurostat publishes this figure for the countries under investigation) for the initial price level ($plserv^{99}$). Equation (1) below summarizes these effects:

$$\Delta\left(\frac{p^{NT}}{p^T}\right) = f\left(\Delta\left(\frac{emp^C}{emp^{NT}}\right), \Delta\left(\frac{w^C}{w^{T+NT}}\right), \Delta\left(\frac{prod^T}{prod^{NT}}\right), \Delta(capita), plserv^{99}\right) \quad (1)$$

The second impact of rapid growth in the construction industry we would like to test – in addition to the increase in the price of nontradable goods – is the hollowing-out of the manufacturing industry. We can test this effect by looking at whether strong investment in the construction sector brings about changes in real output of the manufacturing sector (T) relative to real output of the non-

manufacturing sectors (NT+C) ($\Delta\left(\frac{y^T}{y^{NT+C}}\right)$). The effect of investment can be split

into the resource movement effect measured by the ratio of employment in the manufacturing industry to employment in the construction sector and the wage (competitiveness) effect, measured by the ratio of wages in manufacturing (T) over wages in construction (C):

$$\Delta\left(\frac{y^T}{y^{NT+C}}\right) = f\left(\Delta\left(\frac{inv^C}{inv^{T+NT}}\right)\right) \quad (2)$$

$$\Delta\left(\frac{y^T}{y^{NT+C}}\right) = f\left(\Delta\left(\frac{w^T}{w^C}\right), \Delta\left(\frac{emp^T}{emp^C}\right)\right) \quad (3)$$

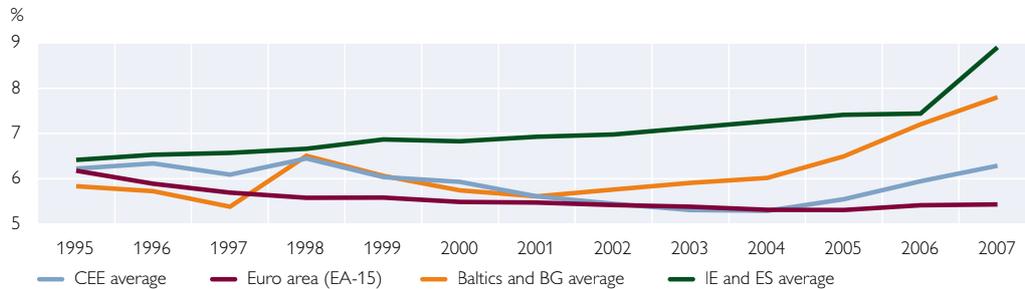
4 The Construction Sector in the CEE Countries – Stylized Facts

In this section, we briefly analyze recent developments in the construction sector in the CEE countries. More specifically, we look at the percentage share of construction in overall gross value added (GVA) and employment.

Starting with the relative share of GVA, charts 1 and 2 show the share of GVA in the construction industry relative to overall GVA in the CEE countries, the euro area, Ireland and Spain. Chart 1 focuses on the period from 1995 to 2007

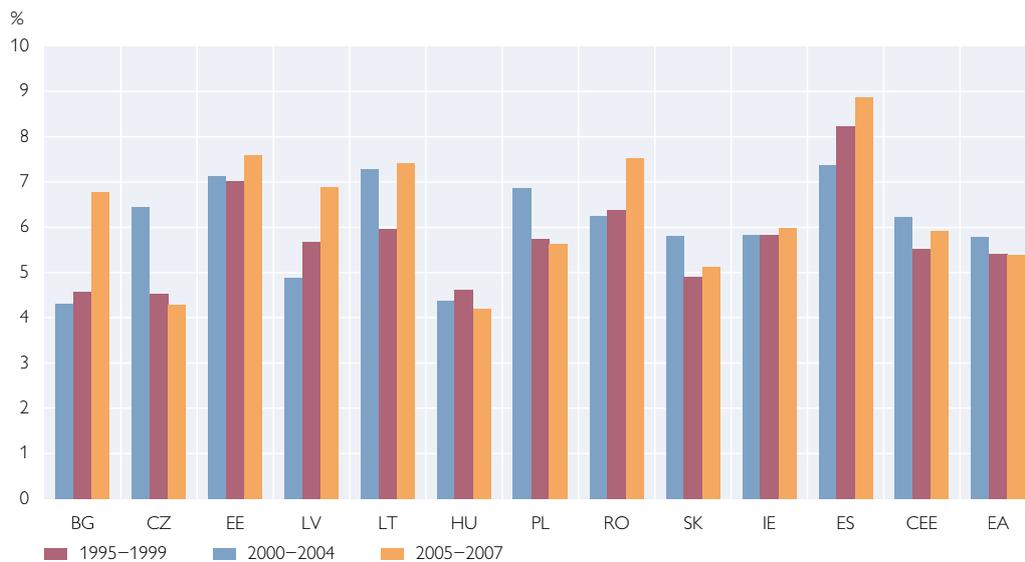
¹⁴ See e.g. Égert (2007) on price level convergence in Central and Eastern Europe.

Chart 1

GVA in Construction as a Percentage of Overall GVA in 4 Country Groups

Source: Eurostat.

Chart 2

GVA in Construction as a Percentage of Overall GVA in Individual Countries

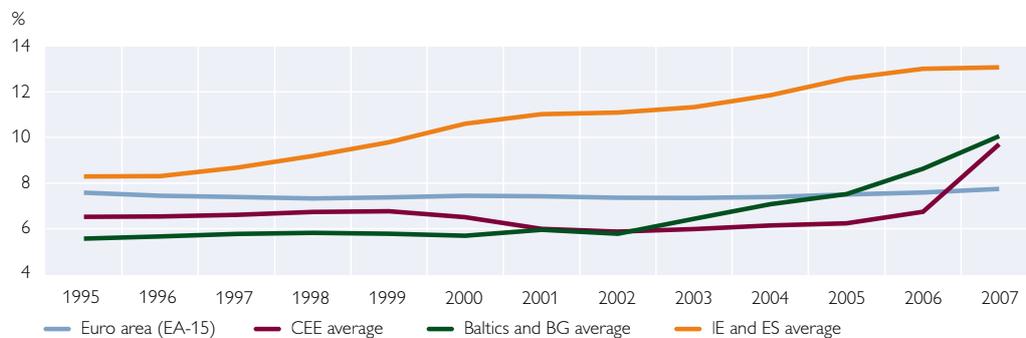
Source: Eurostat.

and shows the development of the construction sector's share for four country groups: the average for all CEE countries, the average for the Baltic countries and Bulgaria, the euro area average, and the average for Ireland and Spain. Chart 2 looks at the situation country by country for three subperiods: 1995 to 1999, 2000 to 2004 and 2005 to 2007.

During the period from 1995 to 2004, the construction sector's average share in GVA tended to decline gradually in the CEE countries and was almost identical with the euro area average in the period 2002 to 2004. More recently, however, this share has on average increased considerably in the CEE countries, whereas it has remained almost flat in the euro area. Chart 1 also shows that the importance of the construction sector is substantially larger for two subgroups: the three Baltic countries and Bulgaria on the one hand, and the euro area members Ireland and Spain on the other hand. Moreover, in particular the Baltic countries and

Chart 3

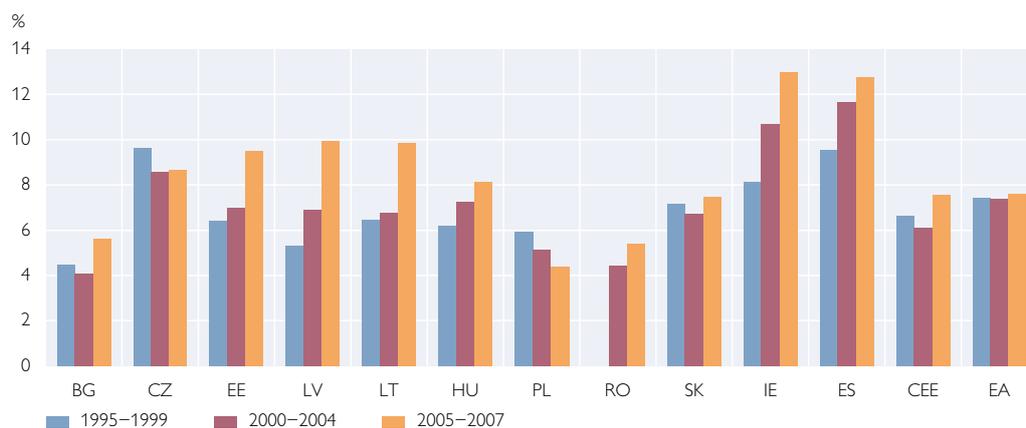
Employment in Construction as a Percentage of Overall Employment in 4 Country Groups



Source: Eurostat.

Chart 4

Employment in Construction as a Percentage of Overall Employment in Individual Countries



Source: Eurostat.

Bulgaria have shown a persistently strong increase in recent years. Chart 2 confirms significant differences between individual CEE countries. Apart from the Baltic countries and Bulgaria, only two other countries in the sample had a construction sector share in GVA that exceeded 6% (the CEE average) during the most recent time period, namely Romania and the euro area member Spain.

Moving from construction to manufacturing, in CEE the average share of manufacturing in GVA in 2007 was still clearly above the euro area average (24.4% versus 19.8%). This, however, is mostly due to the rather large share of GVA in manufacturing in the Czech Republic, Hungary, Poland and Slovakia. The average share for the Baltic countries and Bulgaria (18.6% of total GVA) is below the euro area level, and as small as 11.4% in the case of Latvia.

Turning back to the increased role of the construction sector, charts 3 and 4 show the sector's share in total employment in the CEE countries, the euro area, Ireland and Spain. In line with the previous two charts, the results are presented

both for country groups as well as for the countries individually. The period covered is again 1995 to 2007.

Looking first at the country group averages, chart 3 shows that in the CEE countries, the relative importance of the construction sector in total employment remained broadly stable between 1995 and 2005. Since 2005, however, we can observe a marked increase in the relative importance of the construction sector, which now clearly exceeds the share in the euro area. In the Baltic countries and Bulgaria, this share started to rise earlier (around 2002) and is now close to 10% on average, well above the euro area average. A strong increase, which started already in the late 1990s, can also be seen in the case of Ireland and Spain, where the share of employment in construction is now around 13% – irrespective of the current sharp slowdown in their real estate markets – compared with just below 8% on average in the euro area.¹⁵ Chart 4 again confirms very significant differences between individual CEE countries. The share of employment in construction in total employment increased particularly sharply in the three Baltic countries, but there is also a clear recent upward trend in Bulgaria, Hungary and Romania. This trend is even more pronounced in the case of the two euro area countries Ireland and Spain.

Despite the increase in the construction sector's share in total employment, the average share of employment in the manufacturing sector in total employment in CEE was still clearly above the euro area average in 2007 (20.8% versus 16.4%). As in the case of the GVA share, this is mostly explained by the large share of employment in manufacturing in the Czech Republic, Hungary and Slovakia. For the Baltic countries and Bulgaria, the average share of employment in manufacturing (18.0%) is closer to the euro area level and on a clear downward trend.

Turning to the main drivers of the strong construction sector growth in the CEE countries, three main aspects can be identified: first, the strong increase in residential property prices in recent years, second, the impact of FDI, and third, relatively high levels of public investment. Looking first at residential property price developments, the available data show that house prices are growing rapidly in most CEE countries.¹⁶

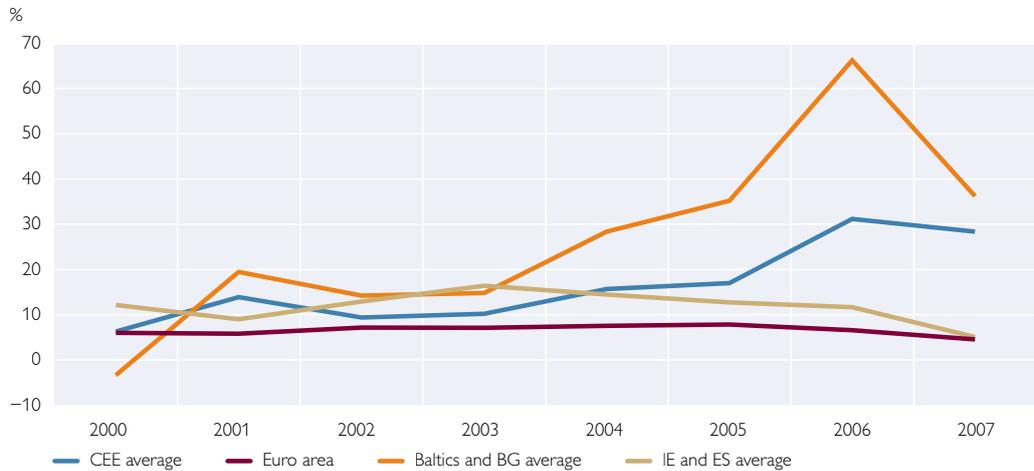
Chart 5 provides a breakdown by country groups and shows that, compared with recent developments in the CEE countries overall and in particular in the Baltic countries and Bulgaria, growth rates of residential property prices were moderate not only in the euro area as a whole but also in Ireland and Spain. When comparing residential property price changes in these country groups, it needs to be noted, however, that the starting point, i.e. the price level in the late 1990s, was significantly lower in the CEE countries and, in particular, in the Baltic countries and Bulgaria than in the euro area including Ireland and Spain.

¹⁵ More recent figures are likely to be underestimated because employment data for Romania and Croatia, which recently both recorded strong growth in the construction sector, are only available until 2005 and 2004, respectively.

¹⁶ Unfortunately there is still a clear lack of comparable and sufficiently long real estate price series for the CEE countries, and no data are available for Romania. In addition, it should be noted that residential property prices relate to home building, which only represents a certain part of overall construction activity. No comparable price series are available for other assets that would trigger construction activities such as commercial real estate (offices, retail space) or (largely public) infrastructure.

Chart 5

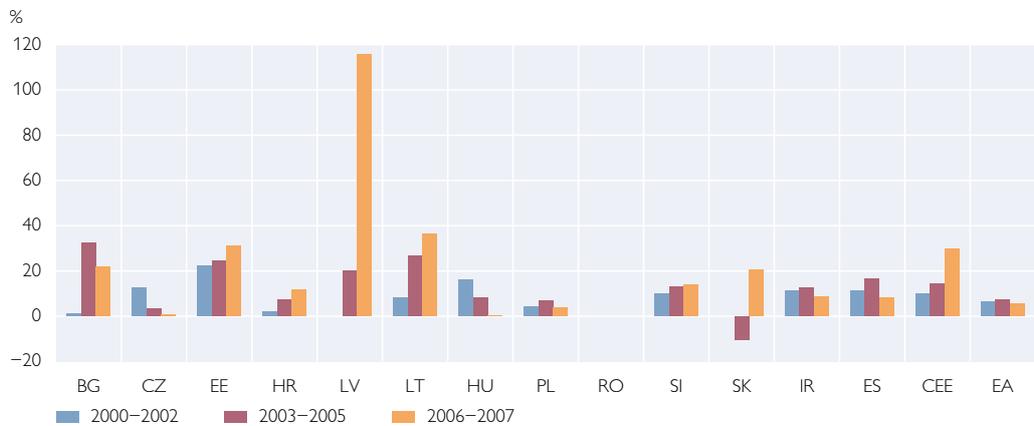
GVA in Construction as a Percentage of Overall GVA in 4 Country Groups



Source: BIS and national central banks.

Chart 6

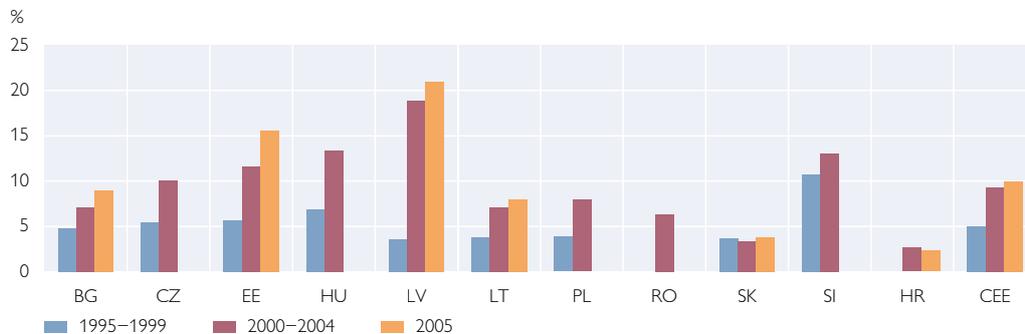
Residential Property Price Developments in Individual Countries



Source: BIS and national central banks.

Looking at the period from 2006 to 2007, house prices in all CEE countries covered in this paper (except for the Czech Republic, Hungary and Poland) grew by more than 10% per year (see chart 6). Bulgaria and the Baltic countries recorded average annual house price increases by between 22% and 116% per year, and the Baltic countries (in particular Latvia) as well as Slovakia show a clear acceleration of growth compared with the period from 2003 to 2005. The very latest annual and quarterly data available for the Baltic countries in particular show, however, that this trend has reversed at least partially: The growth of residential property prices has declined significantly. In some countries and quarters, even nominal price falls occurred. Given the very buoyant growth in Baltic residential property prices in recent years (e.g. Latvia +160% in 2006), this

Chart 7

Share of Real Estate and Construction in the Total FDI Stock in CEE Countries

Source: wiiw.

partial reversal is not surprising. It raises the question, however, how strong and pronounced the correction will be.¹⁷

Foreign direct investment (FDI) is another important driver of growth in the CEE countries' construction sectors. Chart 7 shows the share of FDI in the real estate and construction sectors as a percentage of the total FDI stock in the CEE countries.¹⁸

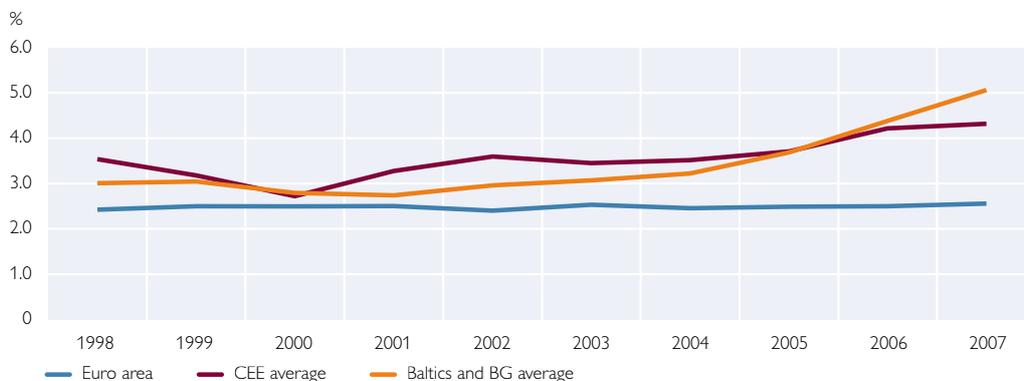
Overall, chart 7 shows a steady increase in the share of real estate and construction in the total FDI stock. The rates of growth, however, are very different across countries. In 2005, the share of real estate-related FDI in Estonia and Latvia was above 15%, while the average share for the CEE countries as a whole climbed only from around 5% in the period from 1995 to 1999 to around 10% in 2005.

Turning to the third driver of the strong growth in the CEE countries' construction sectors, chart 8 compares general government gross fixed capital formation as a percentage of GDP in the CEE countries as a whole, the Baltic countries and Bulgaria, and the euro area.

Throughout the period from 1998 to 2007, general government gross fixed capital formation in the CEE countries was on average above comparable public investment in the euro area. More specifically, since 2001, public investment as a percentage of GDP has shown a broadly increasing trend in the CEE countries as a whole, and in particular in the Baltic countries plus Bulgaria. In 2007, public investment as a percentage of GDP in the Baltic countries and Bulgaria was on average around twice as high as in the euro area. Although detailed comparable data are not readily available, it is realistic to assume that a significant share of

¹⁷ For recent information on real estate developments in CEE countries, see e.g. Urban Land Institute and PriceWaterhouseCoopers (2008) and UniCredit Group (2008).

¹⁸ For a few countries (Latvia, Lithuania and Slovenia), data are available from 1995 onward, but for most countries, data are only available as of 1997 or 1998. The data reported here combined two separate categories of FDI as reported by the Vienna Institute for International Economic Studies (wiiw), namely "real estate, renting and business activities" and "construction," with the former being by far the more important of the two. The data comprises not only homes but also commercial real estate such as office space, warehouses or hotels. Comparable data for Spain and Ireland are not available, but anecdotal evidence suggests that at least in Spain, tourism-related FDI in the coastal areas has had a significant impact on construction investment.

Share of General Government GFCF in GDP in 3 Country Groups

Source: European Commission AMECO database.

public investment expenditure relates to infrastructure investment, which in turn implies construction works, thus contributing to the increasing role of the construction sector in the CEE economies.

Summing up, the following pattern emerges with regard to the recent role of the construction sector in the CEE countries. The importance of the sector (in terms of its share as a percentage of total GVA and employment) has clearly increased, in particular in the Baltic countries and Bulgaria, but also in the CEE countries as a whole, although developments within the CEE group are at times diverse. With regard to recent changes in the construction sector's relative importance, developments in the Baltic countries and Bulgaria show similarities to those observed in Ireland and Spain prior to the current sharp slowdown in the two countries' real estate markets. However, the most recent available GVA and employment data still tend to reveal differences between the two groups, owing to the earlier start and longer duration of the period of rapid growth in the construction sectors in Ireland and Spain. In this context, it is also interesting to note that the relative GVA and employment shares in manufacturing in the Baltic countries and Bulgaria are below, respectively close to, the euro area levels.

Looking at the drivers of the strong expansion of the construction sectors in the CEE countries and in particular in the Baltic countries and Bulgaria, residential real estate price developments as well as FDI inflows and the relatively strong investment activity of CEE governments are likely to have played a role.

When assessing the strong recent pickup in construction activity in a number of CEE countries, it should be kept in mind that this development can of course have also quite positive implications. First of all, the housing stock in most post-transition CEE countries is still inferior to that in other countries such as most "old" EU Member States. Second, also the endowment with commercial real estate space and physical infrastructure in the CEE countries is mostly insufficient, and construction activities that contribute to removing bottlenecks emerging from these shortcomings are welcome. The question we will address empirically in the next section of the paper, however, is whether rapid growth in the construction sector may have also negative implications for the long-term competitiveness of the CEE economies.

5 Empirical Results

5.1 Data Issues

In section 3, we developed a number of testable relationships (equations 1 to 3) in order to check empirically whether any negative Dutch disease-style effects on competitiveness owing to strong construction sector growth can be found in the CEE countries. We estimate equations 1 to 3 for two panels. Panel 1 includes 10 CEE countries: Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. Croatia is excluded because data on the relative price variable were not available for this country.¹⁹ Panel 2 contains 14 “old” EU Member States: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, the Netherlands, Portugal, Spain, Sweden and the United Kingdom.²⁰

Regarding equation 1, we construct three alternative measures of the relative price ratio. Services prices are compared with goods prices (rel1), industrial goods prices (rel2) and non-energy industrial goods prices (rel3). The data were obtained from the NewCronos database of Eurostat. Data for the initial price level of services (relative to the EU-27 average in 1999) are also drawn from NewCronos. The productivity differential is obtained as the ratio of labor productivity in the manufacturing sector over labor productivity in the services sectors (excluding construction services). Wages are measured by nominal compensation per employee in the manufacturing, construction and services sectors. Sectoral employment figures refer to the number of employees in the construction and services sectors. Finally, growth rates of per capita income are calculated on the basis of per capita income measured in purchasing power standards (PPS). Data for productivity, wages, employment and per capita income are taken from the AMECO database of the European Commission.

For equations 2 and 3, three variants of relative manufacturing output are considered. While man1 is obtained by dividing GVA in manufacturing by GVA in the total economy, man2 and man3 use construction and services, respectively, in the denominator instead of the total economy. GVA and investment data are again drawn from AMECO.²¹

5.2 Estimation Strategy

Even though the variables in equations 1 to 3 are given in growth rates, we use the Levin-Lin-Chu (LLC) panel unit root test to see whether the variables are stationary. We use the LLC test that imposes homogeneous unit root processes on the panel cross-sections because of the low number of observations per country. A constraint related to the use of HICP data is that the series start in 1996 (and for some CEE countries only in 2000 or later). Estimation results reported in the appendix indicate that all series (expressed in growth rates) are stationary.

¹⁹ The relative price variable is constructed using HICP components and figures that are currently not available for Croatia.

²⁰ Luxembourg had to be excluded due to lack of available data.

²¹ Sectoral investment data are not available for Bulgaria, Estonia, Hungary, and Latvia.

The low number of observations makes it impossible to employ mean group estimators that rely on country-specific coefficient estimates. Instead, we use either time-fixed effects (if the initial price level variable is included, which precludes the use of country-fixed effects) or country- and time-fixed effects (if initial price levels are not included).

The explanatory variables may be linked to dependent variables in a nonlinear fashion. We check for this eventuality by using the two-regime and three-regime threshold models proposed by Hansen (1999) of the following form:

$$Y = \begin{cases} \alpha_1 + \sum_{j=1}^{n-k} \beta_j \cdot X_j + \sum_{i=1}^k \phi_{1i} \cdot X_i + \varepsilon & \text{if } T \leq \rho \\ \alpha_2 + \sum_{j=1}^{n-k} \beta_j \cdot X_j + \sum_{i=1}^k \phi_{2i} \cdot X_i + \varepsilon & \text{if } T > \rho \end{cases} \quad (4a)$$

$$Y = \begin{cases} \alpha_1 + \sum_{j=1}^{n-k} \beta_j \cdot X_j + \sum_{i=1}^k \phi_{1i} \cdot X_i + \varepsilon & \text{if } T_1 \leq \rho \\ \alpha_2 + \sum_{j=1}^{n-k} \beta_j \cdot X_j + \sum_{i=1}^k \phi_{2i} \cdot X_i + \varepsilon & \text{if } T_2 \geq \rho > T_1 \\ \alpha_3 + \sum_{j=1}^{n-k} \beta_j \cdot X_j + \sum_{i=1}^k \phi_{3i} \cdot X_i + \varepsilon & \text{if } \rho > T_2 \end{cases} \quad (4b)$$

where T , T_1 and T_2 are the thresholds values and ρ denotes the threshold variable. X_i is the variable that behaves nonlinearly in the different regimes. We may have several (k) nonlinear variables at the same time.

In our case, nonlinearity in equations (1) to (3) may arise because of differences in the size of the construction sector in the economy – relative prices may develop differently given a less important construction sector or a very dominant construction sector. Therefore, we use the share of the construction sector in total GVA as the threshold variable.

Along the lines of Hansen (1999), we select linear and nonlinear models as follows. We first estimate the linear model and the two-regime model. A grid search with steps of 1% of the distribution is carried out to find the value of the threshold variable that minimizes the sum of squared residuals of the estimated two-regime model. Hansen (1999) shows that $\phi_{1i} = \phi_{2i}$ and $\phi_{1i} = \phi_{2i} = \phi_{3i}$ can be tested using a likelihood ratio test and he proposes to derive the distribution of the test statistic via bootstrapping with repeated random draws with replacements (Hansen, 1999), given that it does not follow a standard asymptotic distribution.

If the likelihood ratio test statistic rejects the null hypothesis of the linear model against the two-regime model (on the basis of the bootstrapped critical values), we also analyze whether there are three different regimes instead of two regimes. A three-regime model is estimated based on two threshold values of the threshold variable that minimize the sum of squared residuals across the estimated models.²² The bootstrap procedure described above is applied to the two-regime and three-regime models.

5.3 Estimation Results

The estimation results for the relative price equation suggest that relative prices are not much influenced by developments in the construction sector (table 2). For the EU-14 panel, the sectoral employment ratio (resource movement effect) does have the statistically significant and expected positive sign if we use only country-fixed effects (rather than country and time effects). For the CEE as well as the EU-14 countries, the relative wage ratios also turn out to be statistically positive but only for the third relative price measure (service prices over non-energy industrial goods prices). The coefficient estimates of 0.04 for the CEE and 0.09 for the EU-14 would suggest that a 10% change in relative wage growth in the construction sector would go in tandem with a change of 0.4% (CEE) and 0.9% (EU-14) in the growth of relative prices of nontradable goods. Overall, however, the results suggest that the country- and time-fixed effects dominate the other explanatory variables. Hence, the regressions do not provide systematic evidence in favor of a significant impact of the resource movement and spending effects on relative prices.

²² The threshold from the two-regime model is held fixed and a grid search is used to identify the second threshold. We impose the restriction that the two thresholds should be separated at least by 25% of our sample observations. Once the second threshold is identified, a backward grid search is done to identify the first threshold as suggested by Hansen (1999).

Table 2

Estimation Results – Relative Prices of Nontradables, 1997 to 2006

$$\Delta\left(\frac{p^{NT}}{p^T}\right) = f\left(\Delta\left(\frac{emp^C}{emp^{NT}}\right), \Delta\left(\frac{w^C}{w^{T+NT}}\right), \Delta\left(\frac{prod^T}{prod^{NT}}\right), \Delta(capita), plserv^{99}\right)$$

| | rel1 | rel2 | rel3 | rel1 | rel2 | rel3 |
|---|-----------------------|----------|----------|---------------------------------|--------|---------|
| | Country-fixed effects | | | Country- and time-fixed effects | | |
| CEE-10 | | | | | | |
| $\Delta\left(\frac{emp^C}{emp^{NT}}\right)$ | -0.038 | 0.025 | -0.061 | -0.002 | 0.045 | 0.012 |
| $\Delta\left(\frac{prod^T}{prod^{NT}}\right)$ | 0.022 | 0.038 | 0.028 | 0.026 | 0.032 | 0.027 |
| $\Delta\left(\frac{w^C}{w^{T+NT}}\right)$ | 0.001 | 0.053* | 0.020 | 0.012 | 0.054 | 0.044* |
| $\Delta(capita)$ | 0.010 | -0.091 | -0.020 | 0.078 | 0.055 | 0.028 |
| $plserv^{99}$ | 0.016 | 0.034 | -0.005 | | | |
| R ² | 0.419 | 0.264 | 0.190 | 0.516 | 0.401 | 0.438 |
| R ² adj | 0.253 | 0.054 | -0.028 | 0.256 | 0.080 | 0.157 |
| Countries | 10 | 10 | 10 | 10 | 10 | 10 |
| Observations | 64 | 64 | 67 | 64 | 64 | 67 |
| EU-14 | | | | | | |
| $\Delta\left(\frac{emp^C}{emp^{NT}}\right)$ | 0.084*** | 0.099*** | 0.094*** | -0.049 | -0.048 | -0.038 |
| $\Delta\left(\frac{prod^T}{prod^{NT}}\right)$ | 0.019 | 0.028 | 0.039 | -0.001 | 0.009 | 0.018 |
| $\Delta\left(\frac{w^C}{w^{T+NT}}\right)$ | 0.073 | 0.128 | 0.122 | 0.028 | 0.086 | 0.094** |
| $\Delta(capita)$ | 0.028 | 0.060 | 0.085 | -0.038 | -0.012 | -0.013 |
| $plserv^{99}$ | -0.0003 | -0.003 | 0.012 | | | |
| R ² | 0.292 | 0.419 | 0.146 | 0.739 | 0.783 | 0.780 |
| R ² adj | 0.203 | 0.346 | 0.038 | 0.670 | 0.726 | 0.722 |
| Countries | 14 | 14 | 14 | 14 | 14 | 14 |
| Observations | 126 | 126 | 126 | 126 | 126 | 126 |

Source: Authors' estimates.

Note: While rel1 is obtained by dividing service prices by goods prices, rel2 and rel3 use industrial goods prices and industrial goods prices excluding energy goods prices, respectively. *, ** and *** show statistical significance at the 10%, 5% and 1% levels, respectively.

By contrast, the estimation results for relative real manufacturing output provide more support for the hypothesis that strong growth in the construction sector may have a negative impact on relative real manufacturing output (table 3). The first observation is that we can establish a negative relationship between changes in relative investment in construction and changes in the relative real manufacturing output for both country groups, even though this effect is statistically significant only for the CEE group. The results suggest that a 10%

Table 3

Estimation Results – Relative Real Manufacturing Output

$$\Delta\left(\frac{y^T}{y^{NT+C}}\right) = f\left(\Delta\left(\frac{inv^C}{inv^{T+NT}}\right)\right)$$

$$\Delta\left(\frac{y^T}{y^{NT+C}}\right) = f\left(\Delta\left(\frac{w^T}{w^C}\right), \Delta\left(\frac{emp^T}{emp^C}\right)\right)$$

| | man1 | man2 | man3 | man1 | man2 | man3 |
|---|-----------------------|--------|-----------|---------------------------------|----------|----------|
| | Country-fixed effects | | | Country- and time-fixed effects | | |
| CEE-10 | | | | | | |
| $\Delta\left(\frac{inv^C}{inv^{T+NT}}\right)$ | -0.111** | -0.099 | -0.185*** | | | |
| $\Delta\left(\frac{w^T}{w^C}\right)$ | | | | 0.115** | 0.322*** | 0.141** |
| $\Delta\left(\frac{emp^T}{emp^C}\right)$ | | | | 0.111 | 0.379** | 0.130 |
| R ² _j | 0.431 | 0.279 | 0.484 | 0.407 | 0.358 | 0.384 |
| R ² _{adj} | 0.210 | -0.001 | 0.280 | 0.235 | 0.172 | 0.206 |
| Countries | 6 | 6 | 6 | 10 | 10 | 10 |
| Observations | 76 | 76 | 75 | 108 | 108 | 108 |
| EU-14 | | | | | | |
| $\Delta\left(\frac{inv^C}{inv^{T+NT}}\right)$ | -0.001 | -0.006 | -0.002 | | | |
| $\Delta\left(\frac{w^T}{w^C}\right)$ | | | | 0.053 | 0.318*** | 0.067 |
| $\Delta\left(\frac{emp^T}{emp^C}\right)$ | | | | 0.143*** | 0.601*** | 0.163*** |
| R ² _j | 0.364 | 0.245 | 0.350 | 0.440 | 0.477 | 0.419 |
| R ² _{adj} | 0.273 | 0.137 | 0.257 | 0.341 | 0.384 | 0.316 |
| Countries | 14 | 14 | 14 | 14 | 14 | 14 |
| Observations | 475 | 471 | 471 | 400 | 400 | 400 |

Source: Authors' estimations.

Note: While man1 is obtained by dividing GVA in manufacturing by GVA in the total economy, man2 and man3 use construction and services, respectively, in the denominator instead of the total economy. *, ** and *** show statistical significance at the 10%, 5% and 1% levels, respectively. Sectoral investment data are not available for Bulgaria, Estonia, Hungary, and Latvia.

increase in relative investment growth in construction is associated with a relative decline of between 1% and 2% in relative manufacturing output growth.

Table 3 shows that the resource movement effect and the wage or competitiveness effect are not equally important for the two country groups. For the CEE group, we have robust evidence that the competitiveness effect is important for the relative decline of manufacturing output irrespective of the chosen deindustrialization measure. By contrast, for the EU-14 group, the wage effect is significant only if we use man2 as the measure of relative decline of manufacturing. The size of the estimated coefficients indicates that a 10% increase in wage growth in the construction sector relative to that in the manufacturing sector goes hand in hand with a drop of between 1.2% and 3.2% in relative manufacturing output growth.

Table 4

Nonlinearity – Likelihood Ratio Tests and Bootstrapped p Values

| | | CEE-10 | | EU-14 | |
|------|---------------------|--------|--------------|-------|--------------|
| | | LR | p-value | LR | p-value |
| rel1 | linear vs. 2r model | 6.33 | <u>0.098</u> | 5.48 | <u>0.083</u> |
| | 2r vs. 3r model | 5.89 | 0.046 | 2.08 | 0.505 |
| rel2 | linear vs. 2r model | 10.78 | 0.010 | 6.95 | 0.110 |
| | 2r vs. 3r model | 1.56 | 0.492 | 0.82 | 0.705 |
| rel3 | linear vs. 2r model | 4.15 | 0.206 | 8.03 | 0.027 |
| | 2r vs. 3r model | 6.01 | 0.117 | 3.53 | 0.202 |
| man1 | linear vs. 2r model | 7.91 | <u>0.074</u> | 8.88 | 0.020 |
| | 2r vs. 3r model | 1.72 | 0.446 | 2.32 | 0.332 |
| man2 | linear vs. 2r model | 12.10 | 0.035 | 27.86 | 0.000 |
| | 2r vs. 3r model | 17.38 | 0.000 | 1.05 | 0.631 |
| man3 | linear vs. 2r model | 2.56 | 0.431 | 7.43 | 0.038 |
| | 2r vs. 3r model | 0.58 | 0.764 | 2.95 | 0.238 |

Source: Authors' estimations.

Note: 2r model and 3r model refer to the two-regime and three-regime models as set out in equations (4a) and (4b). LR is the likelihood ratio test, and p-values are obtained after 1,000 bootstrap replications. p-values lower than 0.05 and 0.01 show that the null hypothesis of the linear model (2-regime model) can be rejected against the alternative hypothesis of the two-regime model (three-regime model) at the 5% and 1% statistical significance levels, respectively.

By contrast, the resource movement effect seems to be more robust in the EU-14 than in the CEE group, as it is always significant with the expected positive sign for the latter group and it is found to be significant only for man2 for the former group. Overall, we find that a rise by 10% of growth in employment in the construction sector relative to that in the manufacturing sector is linked to a decrease of between 1.4% and 6% in relative manufacturing output growth.

Turning to the issue of nonlinearity, we use the share of the construction sector in total GVA as the threshold variable and we allow for nonlinearity for the variables that are likely to indicate Dutch disease-style competitiveness effects due

to the developments in the construction sector, namely: $\Delta\left(\frac{emp^C}{emp^{NT}}\right)$ and $\Delta\left(\frac{w^C}{w^{T+NT}}\right)$

in equation (1) and $\Delta\left(\frac{w^T}{w^C}\right)$ and $\Delta\left(\frac{emp^T}{emp^C}\right)$ in equation (3). The other variables are

restricted to be the same across the different regimes.

Table 4 reports the likelihood ratio test and the corresponding bootstrapped p-values for the selection of the linear, two-regime and three-regime models. For the CEE-10, at the conventional 5% level, the two-regime model is selected over the linear model for rel2 and the three-regime model for man2. For the EU-14, the two-regime model is selected for rel3 and for all three measures of deindustrialization (man1, man2 and man3).

For the relative price equation, allowing for nonlinearity makes the coefficients significant, at least in one of the regimes (rel2) (table 5). For the CEE-10, relative wages and relative employment become significant with the expected positive sign in the lower regime (but not in the upper regime), while the same variables are positive and statistically significant in the higher regime for rel3 for the EU-14.

Table 5

Nonlinear Models

| | | CEE-10 | EU-14 | | | |
|--|-------------|----------|----------|----------|----------|----------|
| | | rel2 | rel3 | man1 | man2 | man3 |
| Coefficient estimates | | | | | | |
| $\Delta(\textit{capita})$ | | 0.075 | -0.02 | | | |
| $\Delta(\frac{\textit{prod}^T}{\textit{prod}^{NT}})$ | | 0.075 | 0.028 | | | |
| $\Delta(\frac{\textit{emp}^C}{\textit{emp}^{NT}})$ | Low regime | 0.224** | -0.07** | | | |
| | High regime | -0.076 | 0.083** | | | |
| $\Delta(\frac{w^C}{w^{NT}})$ | Low regime | 0.109*** | 0.078 | | | |
| | High regime | -0.004 | 0.178*** | | | |
| $\Delta(\frac{w^T}{w^C})$ | Low regime | | | 0.099 | 0.511*** | 0.123 |
| | High regime | | | 0.036 | 0.278** | 0.532 |
| $\Delta(\frac{\textit{emp}^T}{\textit{emp}^C})$ | Low regime | | | 0.239*** | 0.933*** | 0.268*** |
| | High regime | | | 0.066** | 0.418*** | 1.485 |
| Threshold value | | 6.0% | 7.5% | 6.3% | 7.0% | 6.3% |
| Percentile in distribution | | 0.540 | 0.547 | 0.325 | 0.421 | 0.326 |

Source: Authors' estimations.

Note: The threshold variable is the share of construction in total GVA. **, * and *** show statistical significance at the 10%, 5% and 1% levels, respectively.

Regarding relative manufacturing output (variants of man), the coefficients are mostly insignificant for the CEE-10 (and are not reported here). At the same time, the impact of the resource movement effect (relative employment, $\Delta(\frac{\textit{emp}^T}{\textit{emp}^C})$) on relative manufacturing output seems to be considerably different for the EU-14: It is higher in the lower regime than in the upper regime. The same applies to the relative wage variable ($\Delta(\frac{w^T}{w^C})$) for man2: its effect is twice as high in the lower regime than in the higher regime.

Overall, there is some evidence for nonlinearity, although nonlinearity appears to be sensitive to the alternative measures of the dependent variables. In particular, for rel3 (services prices relative to the prices of non-energy industrial goods) in the EU-14, we find that relative wages and relative employment do have a much stronger effect on relative prices with an increase in the share of the construction sector.

6 Concluding Remarks

Against the background of the strong increase in construction activity in a number of CEE countries, this paper examines whether rapid growth in this part of the economy may have Dutch disease-style negative implications for the long-term competitiveness of the CEE economies. The stylized facts presented above suggest a strong expansion of the construction industry in particular in the Baltic countries and Bulgaria. In fact, developments in this country group appear to bear some resemblance to Ireland and Spain, which – irrespective of the current sharp slowdown in their real estate markets – experienced rapid growth in the construction sector in recent years. The situation in the other CEE countries is more heterogeneous across countries.

As argued above, the strong recent pickup in construction activity in a number of CEE countries is not surprising and not a priori a cause for concern. We identified three main reasons for this pickup. First, the recent strong house price growth in the CEE countries, which in turn was mainly triggered by the countries' easy access to international capital over the past several years. Second, the inflow of FDI in real estate and construction, and third, the relatively high share of government investment, which is mostly related to the construction of infrastructure. Given the relatively low housing and infrastructure endowment in the CEE countries, as regards both the quality and quantity of dwellings and infrastructure, there is a clear need for investment in these areas. In addition, improved endowment with commercial real estate (such as offices, retail space or hotels) as well as enhanced physical infrastructure can contribute to removing growth bottlenecks in the CEE economies.

The question we address empirically in this paper, however, is whether there are already signs that the rapid expansion of the CEE economies' construction sectors is contributing to increasing relative prices for nontradables, which in turn may have negative repercussions on the long-term competitiveness of the manufacturing sector in the CEE countries. In addition, the paper compares these developments in the CEE countries with those observed in the "old" EU Member States.

Our results show that there is little evidence as yet to confirm relative price adjustments between the tradable and the nontradable sectors due to the rapid growth in construction. But once we look at the two channels through which construction investment is expected to cause a relative decline in real manufacturing output, it turns out that wage increases in the construction sector in excess of those in the manufacturing sector appear to cause a decline in real manufacturing output relative to that in other sectors of the CEE economies. In the EU-14, this competitiveness effect is less pronounced and the resource movement effect (reallocation of labor across sectors) is found to play a larger role. We also find some evidence for nonlinearity in this context.

In the long run, these developments may result in a loss of competitiveness and a gradual relative decline of the manufacturing sector's importance in the CEE countries. This, in turn, may trigger other problems such as unsustainable external deficits and ultimately periods of relatively low GDP growth, in particular in countries with pronounced labor and product market inefficiencies and sticky prices, the incidence of which tends to differ significantly across countries. In order to avoid possible negative side-effects of the rapid growth of the construc-

tion sector in the CEE countries, it will be important for governments to pursue policies that discourage excessive shifts of resources to uses that are non-productive from the point of view of international competitiveness. This implies, in particular, avoiding policy incentives such as real estate tax breaks and insufficient lending standards for banks that may result in excessive private-sector construction activity. The situation should be seen in a somewhat different light when it comes to construction in infrastructure, which is often needed to enhance overall productivity in the CEE countries, as well as construction for commercial purposes such as office and retail space. However, also with regard to such productive construction activities, the situation in the construction sector as a whole needs to be taken into account.

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Appendix

Panel Unit Root Test (Levin-Lin-Chu)

| | CEE-10 | | EU-14 | | CEE-10 + EU-14 | |
|------------------------------------|----------|------|-------|------|----------------|------|
| | p-values | | | | | |
| | c | c+t | c | c+t | c | c+t |
| $\Delta(\frac{prod^T}{prod^{NT}})$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $\Delta(capita)$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $\Delta(\frac{emp^c}{emp^{NT}})$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $\Delta(\frac{emp^T}{emp^c})$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $\Delta(\frac{w^c}{w^{T+NT}})$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $\Delta(\frac{w^T}{w^c})$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| $\Delta(\frac{inv^c}{inv^{T+NT}})$ | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>man1</i> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>man2</i> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>man3</i> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>rel1</i> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>rel2</i> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| <i>rel3</i> | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

Source: Authors' estimations.

Note: Sectoral investment data are not available for Bulgaria, Estonia, Hungary and Latvia. *c* and *c+t* indicate the inclusion of a constant and a constant and a trend, respectively. The optimal lag length is chosen using the Schwarz information criterion.

Housing Loan Developments in the Central and Eastern European EU Member States

Zoltan Walko¹

Over the past few years, lending to households² has grown substantially in most Central, Eastern and Southeastern European (CESEE) countries, with housing loans accounting for the bulk of new lending in many of them. The pace of credit growth has raised concerns about macroeconomic and financial stability, and has been a topic often addressed by economic analysis on the region. The rapid development of housing loans in CESEE has assumed an additional dimension since mid-2007, when the problems in the U.S. housing market started to culminate. Given the topicality of the issue, this short analysis reviews recent major developments of housing loans in the ten Central and Eastern European EU Members States (CEE-MS) and outlines its major driving forces, associated risks, and policy implications, covering the period from end-2004 to end-2007.

1 Housing Loans Expanded Strongly in Recent Years

Over the past few years, lending by resident banks to households has grown substantially in the ten CEE-MS. On average³, the outstanding stock of loans to households in the region nearly doubled from 12.3% of GDP at the end of 2004 to 22.5% of GDP by the end of 2007. The largest increase occurred in the three Baltic countries, followed – with some margin – by Bulgaria and Romania. Despite this impressive growth, the level of household credit as a percentage of GDP (22.5%) in the CEE-MS still amounted to only around 40% of the euro area average at end-2007. While the gap to the euro area was biggest in Slovakia and Romania (at 37 to 38 percentage points), household credit in Estonia and Latvia already came close to the euro area average (gap of 10 to 12 percentage points). Moreover, at end-2007, the size of household credit as a percentage of GDP was bigger in Estonia and Latvia than in Greece and Italy and comparable to that in Austria and Belgium.

Among the different categories of loans to households, loans for house purchase (housing loans) grew most dynamically in the CEE-MS, up by 6% of GDP on average between end-2004 and end-2007. The biggest expansion, by around 20% of GDP, was observed in Estonia and Latvia (although the volume of housing loans as a percentage of GDP had been high in these countries already at end-2004), followed by Lithuania (up by around 12% of GDP). Housing loans grew dynamically also in several other CEE-MS. In Bulgaria, the Czech Republic and Poland, they expanded by 6.2% to 7.4% of GDP in the period under review, while in Hungary, Romania, Slovenia and Slovakia, they grew by around 3% to

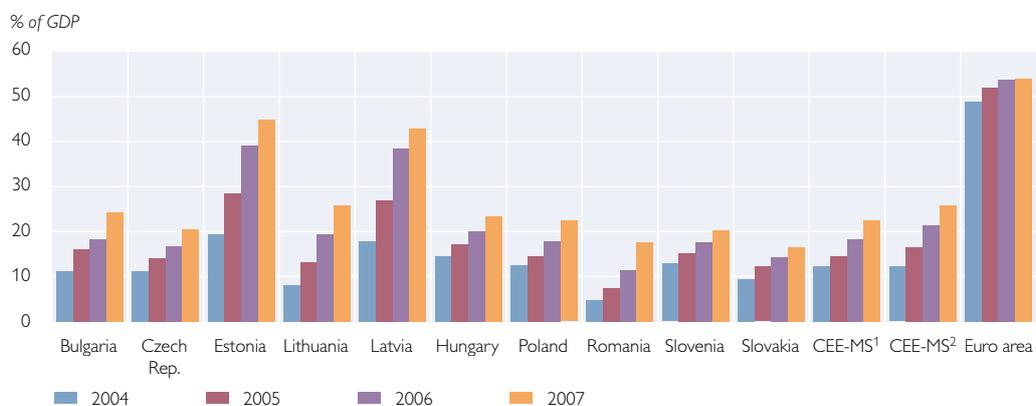
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² In this contribution, the term households covers households and non-profit institutions serving households (NPISH), in line with ESA95 (S.14 and S.15).

³ This analysis refers to weighted average data for the ten CEE-MS (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) that were obtained by adding loans and GDP expressed in euro over the countries in the sample. Given that weighted average data are strongly impacted by Poland (and other big or financially more developed countries in the sample), we also present unweighted averages in the charts (e.g. simple average of the ratios over the ten countries). It should be noted that comparative analysis is complicated by the fact that publicly accessible, harmonized, detailed data on housing loans are not always available for these countries, for example with respect to the currency and maturity structure of the loans and their quality (including e.g. information on nonperforming loan ratios, loan-to-value ratios, etc).

Chart 1

Loans to Households



Source: NCBs, ECB, OeNB.

¹ Weighted.

² Unweighted.

Chart 2

Development of Housing Loans

Change in housing loans in % of GDP, 2004–2007



Source: NCBs, ECB, OeNB.

¹ CEE-MS weighted.

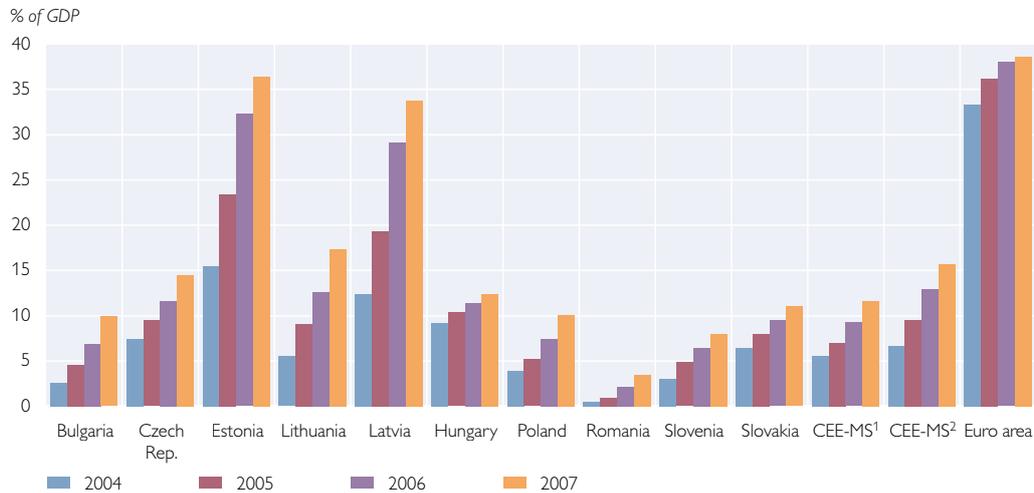
² CEE-MS unweighted.

5% of GDP. There is some evidence that – with the notable exception of the Baltic countries and Romania – the expansion was bigger in countries that started from lower housing loan levels. In the euro area, housing loans grew by 5.3% of GDP, with Ireland, Spain and Portugal taking the lead with growth rates of about 13% to 20% of GDP; in several other euro area countries (Belgium, Greece, France, Luxembourg and Finland), growth rates were also higher than on average in the CEE-MS.

As a result of these developments, the volume of housing loans as a percentage of GDP reported for Estonia and Latvia already came close to the euro area average (38.8%) at end-2007. In fact, it was comparable to the levels observed in some euro area countries (Belgium, France, and Finland) and even higher than in some others (Austria, Greece, Italy). The housing loan level in Lithuania was

Chart 3

Housing Loans to Households



Source: NCBs, ECB, OeNB.

¹ Weighted.

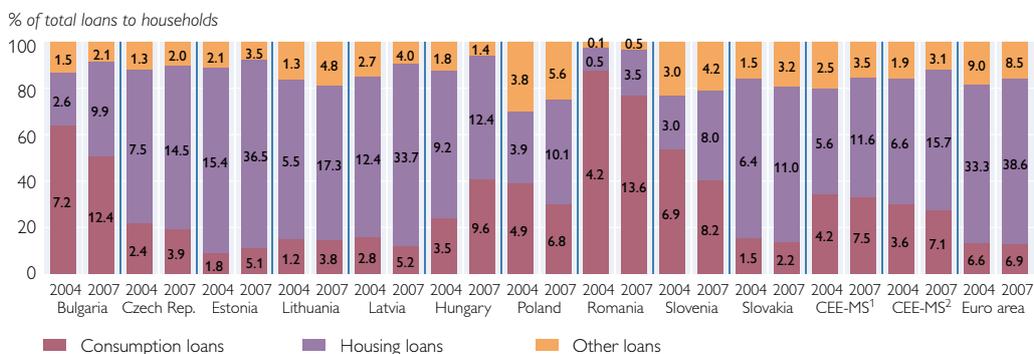
² Unweighted.

comparable to that of Italy (the euro area country with the lowest level of housing loans), while the levels observed in the remaining CEE-MS were lower than those in euro area members.

The dynamic expansion of housing loans in the CEE-MS also drove up their share in total loans to households from 45.6% to 51.4% in the period under review, while the share of the two other household loan categories (i.e. consumption loans and other loans) decreased. A similar development was observed in the euro area, where the share of housing loans in total loans to households climbed from 68.0% to 71.5% and the share of the two other loan categories declined.

Chart 4

Structure of Loans to Households



Source: NCBs, ECB, OeNB.

¹ Weighted.

² Unweighted.

Note: The figures in the bars represent the volume of loans as a percentage of GDP.

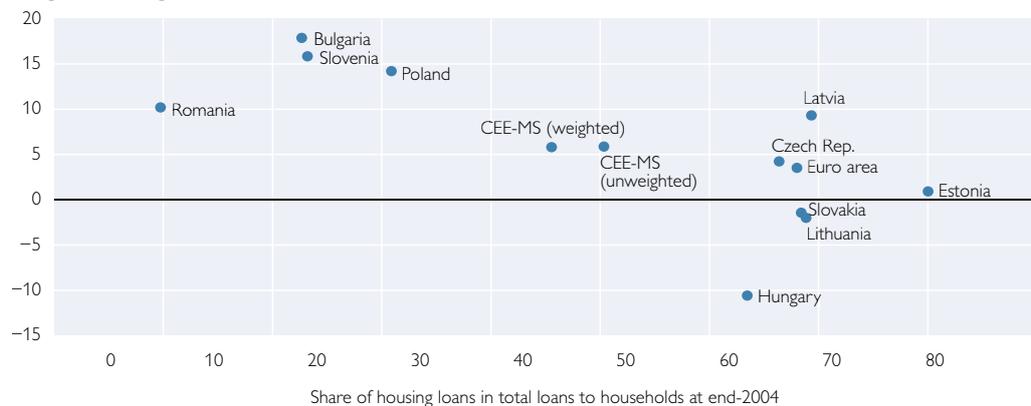
Among the CEE-MS, the share of housing loans grew most dynamically in Bulgaria, Poland, Romania and Slovenia, i.e. in those countries where housing loans represented a comparably small portion of total loans to households in 2004. By contrast, the share of housing loans decreased substantially in Hungary and, to a smaller extent, also in Lithuania and Slovakia (albeit from comparably high levels especially in the latter two countries). In Hungary, this development was accompanied by a marked shift in the structure of household loans toward consumption loans. Since the second half of 2006, this increase in consumption loans may have been related to households' consumption smoothing in response to a sharp decline in real income, but the longer-term trend was likely related to a gradual substitution of free-purpose (mostly foreign currency-denominated) mortgage loans for forint-denominated housing loans on less favorable conditions, especially following the gradual tightening of the housing subsidy system since 2003. Another factor needs to be taken into account in this context: The categorization of consumer and housing loans does not necessarily reflect the actual use the money is put to. In the case of Hungary, for example, Magyar Nemzeti Bank (MNB) estimates that as many as 30% of subsidized housing loans were used to finance consumption. At the same time, foreign currency-denominated home equity loans (freely usable mortgage loans) have recently often been used for housing purposes, because administration related to borrowing and using the money is much simpler for such loans than for housing loans, and the difference in pricing between the two types of loans has narrowed (MNB, 2008).⁴

Even though between 2004 and 2007 the share of housing loans in total loans to households rose more rapidly in the CEE-MS than in the euro area, their share was still significantly smaller in the former group of countries at the end of 2007 (51.4% versus 71.5%). This is consistent with the higher share of consumption loans in the CEE-MS compared with the euro area.

Chart 5

Development of the Housing Loan Share

Change in the housing loan share in %, 2004–2007



Source: NCBs, ECB, OeNB.

⁴ This bias is in addition to the potential classification bias between loans to households and loans to nonfinancial corporations in case the owners of small and medium-size enterprises take out personal loans and make the funds available to their company.

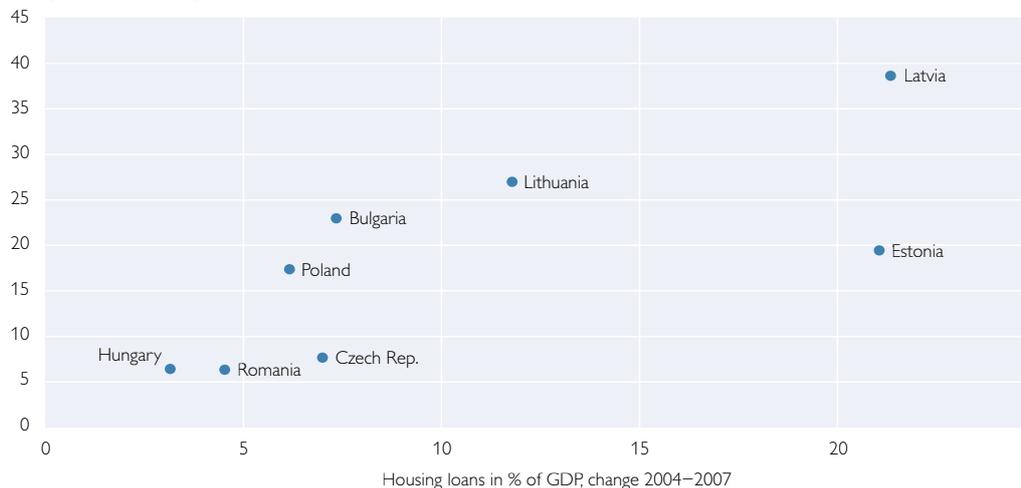
2 Both Demand and Supply Factors at Work

The robust development of housing loans in the CEE-MS over the past few years was supported by various factors. On the demand side, income growth and improving income expectations boosted credit demand in general, in line with the suppositions of the finance-growth nexus (see below). In addition, rising income levels may have fueled demand for better and more housing (especially given poor housing conditions to start with) and thus demand for housing loans. Moreover, in several CEE-MS, the rise in house prices went hand in hand with an increase in the volume of housing loans; the two developments probably reinforced each other: For example, expectations of a future increase in property prices may have contributed to a growing demand for housing loans, and the resulting higher demand for housing (that was not sufficiently met by housing supply) created additional upward pressures on house prices. The existence of such a relationship is supported both by empirical evidence suggesting that housing loan growth seems to play an important role in house price dynamics (Égert and Mihaljek, 2007) and by the fact that rising house prices raise the value of the collateral, thus enabling borrowers to take out more loans⁵ (even at stable loan-to-value ratios⁶). In some countries, housing subsidy systems and/or favorable tax treatment of housing loans (e.g. in the Baltic countries, the Czech Republic, Slovakia, and Hungary – especially before the reform of the subsidy system) have likely contributed to demand for housing loans.

Chart 6

Housing Loans and House Prices

Average year-on-year change of real house prices in %, 2004–2007



Source: UniCredit Group, NCBs, OeNB.

⁵ Analogously to the “financial accelerator” effect as described e.g. by Terrones and Mendoza (2004).

⁶ However, empirical evidence suggests that in some CEE-MS strong competition among banks on the housing loan market was associated with a loosening of lending standards, including increasing loan-to-value ratios.

A major factor on the supply side was the entry of foreign banks (mostly from other EU Member States) into the CEE-MS banking sectors and the resulting heavy competition for market shares on the expanding, profitable and relatively less risky housing loan markets. During this process, more diversified credit instruments became available to borrowers at lower costs, longer maturities and on more flexible terms (e.g. lower amortization requirements, higher loan-to-value ratios) (UniCredit Group, 2008; IMF, 2006). The dynamic expansion of housing loans can be partly explained by the relatively lower level of risk involved with housing loans, as they are generally secured by mortgages, which also reduces necessary investments in information gathering. Moreover, housing loans generally offer comparably higher margins for banks (EBRD, 2006, 2007). Some improvements in the institutional framework (e.g. land registries, legal systems in general and property rights in particular) may also have created additional incentives for banks to grant housing loans. At the same time, the relatively low level of housing loans in Central and Eastern Europe compared with more advanced economies may be associated with the continued need to clarify property rights and to establish clear title deeds systems (EBRD, 2006, 2007).

3 Associated Risks

In general, financial deepening has been a welcome phenomenon in the CEE-MS during the past decade. There is a large body of literature about the finance-growth nexus that emphasizes the positive relationship between credit-to-GDP levels and economic development, with most results suggesting causality going from financial deepening to economic growth (for a literature overview, see e.g. Terrones and Mendoza, 2004, or Rajan and Zingales, 2001). Credit growth in the CEE-MS has improved access to credit for both households and corporations, thus making the intertemporal smoothing of consumption and investment easier, and has also likely led to a more efficient use of financial resources through the reallocation of credit from the public to the private sector (see e.g. EBRD, 2006, or Égert, Backé and Zumer, 2006).

The rapid increase in housing loans in particular has had beneficial effects on housing conditions in the CEE-MS both in terms of the availability and the quality of housing. Given that in the pre-transition era, housing used to be both scarce (e.g. in terms of the average size of dwellings or of floor space per occupant) and of poor quality (e.g. no piped water, bath or flush toilet, poor insulation) (see Égert and Mihaljek 2007; UniCredit Group, 2008), housing loans have certainly contributed to raising living standards in the CEE-MS.

However, some related risks should not be overlooked.⁷ From a macroeconomic point of view, the strong growth in housing loans has contributed to an output boom in the construction sector. In some countries (especially the three Baltic countries), this sector showed signs of overheating in the form of emerging capacity shortages (e.g. bottlenecks of qualified labor and strong wage rises) and very rapid house price increases, thus pushing house prices closer to the estimated

⁷ The following overview focuses on risks related to housing loans in particular. For risks associated with rapid credit expansion in general (e.g. macroeconomic vulnerabilities, implications for banks' portfolio quality, risk management capacities or refinancing structure, borrowers' debt burden) see e.g. Sirtaine and Skamnelos (2007), IMF (2006), Tamirisa and Iqan (2006), or Terrones and Mendoza (2004).

equilibrium levels (UniCredit Group, 2008). The construction boom thereby contributed a lot to overall economic overheating. It should be noted, however, that the tightening of credit conditions by local banks especially in Estonia and Latvia since early 2007 has led to a sharp slowdown in the growth of housing loans and construction activity as well as to declines in house prices. Moreover, housing construction has likely fueled import demand (e.g. for high-quality building materials and interiors). In addition, in so far as housing loans have raised households' overall financial resources to finance consumption, housing loan growth may have contributed to rising inflationary pressures and/or may have burdened the current accounts. In fact, countries that saw the steepest rise in housing loans as a percentage of GDP are among those with the biggest imbalances in the region (Baltic countries, Bulgaria).

With regard to potential financial stability risks associated with the rapid rise in housing loans, the share of foreign currency-denominated loans is remarkably high in several countries. In Romania, loans extended in foreign currencies accounted for nearly 90% of the stock of outstanding housing loans at the end of 2007 according to available statistics. In Bulgaria, Hungary and Poland, the share was also high at between 37% and 55%. Considering the high share of foreign currency loans in total lending to households and the high share of housing loans in total loans to households in the Baltic countries (particularly in Estonia and Latvia), a significant portion of housing loans is denominated in foreign currencies in these countries. Borrowing in foreign currency exposes (mostly unhedged) households to the risk of a lasting depreciation of the home currency and an increase in the foreign interest rate level. These risks are further exacerbated in Hungary and Poland by the high share of the Swiss franc in the total stock of foreign currency housing loans.⁸

Long-term loans with a maturity of more than five years account for the bulk (>90%) of housing loans in the CEE-MS. Banks generally pass on to borrowers a substantial part of the associated interest rate risk in the form of floating rate loans, which, however, does not eliminate the interest rate risk but just transforms it into credit risk. In addition, the long-term nature of housing loans increasingly requires banks to find corresponding long-term refinancing facilities, while the domestic deposit base is dominated by short-term maturities. This has led to increased issuance of mortgage bonds and heavy reliance on financing from parent banks in most CEE-MS, and there has been no widespread securitization of housing loans so far.

There are also concerns that the housing loan boom in the region over the past few years has in part been supported by a lowering of origination standards and product innovations (e.g. lengthening of maturities, rising loan-to-value ratios), which have made access to finance easier for "marginal" customers (IMF, 2006). While anecdotal evidence suggests that in several CEE-MS, higher-income groups accounted for the bulk of household borrowing (for house purchase) (e.g. IMF, 2007; MNB, 2008; ČNB, 2008), aggregate data on (continuously rising) household indebtedness may conceal a growing share of low(er)-income borrowers having taken out such loans in the recent past.

⁸ *Insufficient data availability prevents a more structured and detailed analysis.*

Housing loan growth has also heightened the banking systems' overall exposure to the property market (in addition to the exposure inherent in (i) loans extended to corporations in the construction sector and in the real estate, renting and business activities sector as well as (ii) mortgage loans in other sectors).⁹ In addition to cyclical risks in the aforementioned economic branches, banks are increasingly affected by house price risks and the potential need to liquidate property collateral in case of borrowers' default. While there is no clear evidence of a house price bubble in the CEE-MS, banks do face house price risks, as is evidenced by the fact that real growth of house prices has decelerated rapidly and substantially in the three Baltic countries since the beginning of 2007.

4 Conclusions and Policy Implications

In a number of CEE-MS, loans to households and housing loans in particular have developed very dynamically over the past few years. As a result, the stock of housing loans as a percentage of GDP reached the level of some euro area countries in a few CEE-MS, although in most of them it is still much lower. This development was supported by both demand- and supply-side factors, such as rising income levels, increasing house prices, improvements in the institutional framework, more diversified credit instruments and more favorable borrowing terms. While the rapid increase in housing loans has likely had favorable effects on housing conditions in the CEE-MS both in terms of the availability and the quality of housing (and thus on living standards), these benefits have not come without risks. Tensions in macroeconomic stability, increased exposure to foreign currency-related (exchange rate and foreign interest rate) risks for borrowers, heightened credit and liquidity risks for banks and their larger exposure to house price risks are the most striking factors.

In response to these macroeconomic and financial stability risks related to the rapid expansion of housing loans, economic policymakers have taken action in several CEE-MS. The measures included, inter alia, tightening or abolishing housing subsidy or tax benefit systems (e.g. Hungary, Estonia), increasing the risk weights for mortgages loans (e.g. Estonia), requiring banks to strengthen credit risk management – with a particular focus on mortgage and foreign currency lending – (e.g. Poland), tightening loan-to-value ratios (e.g. Romania, Latvia) or making loan classification/provisioning rules more stringent (e.g. Bulgaria, Romania).

In combination with other factors (such as rising interest rates, stricter lending practices of foreign parent banks, moderating house price expectations, and potentially increased risk awareness on the part of both lenders and borrowers in the wake of the global credit market squeeze since mid-2007), these measures have already contributed to a cooling down of the housing loan boom in some of the CEE-MS (most notably in Estonia and Latvia, but also in Lithuania and Bulgaria). In Estonia and Latvia, this cooling has not come without an adverse impact on the real economy, which underscores the close interlinkages between the financial sector and the real economy. These links will become even more important as financial deepening is advancing also in other CEE-MS.

⁹ In fact, available data suggest that loans to the construction sector, the real estate, renting and business activities sector, and housing loans taken together accounted for a considerable portion of banks' total loan portfolio (up to 40% to 70%) at end-2007, and this share has risen substantially over the past few years.

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Annex

Selected Data on Housing Loans

| | Loans to households (incl. NPISH) ¹ | | Housing loans to households (incl. NPISH) ¹ | | Change in house prices (real) ² | Share of foreign currency loans in total housing loans ³ | | Share of long-term loans in total housing loans ⁴ | |
|---------------------|--|------|--|------|--|---|------|--|------|
| | 2006 | 2007 | 2006 | 2007 | 2004–2007 | 2006 | 2007 | 2006 | 2007 |
| Bulgaria | 18.3 | 24.4 | 6.9 | 9.9 | 23.0 | 34.7 | 37.3 | 95.0 | 95.7 |
| Czech Republic | 16.8 | 20.4 | 11.6 | 14.5 | 7.7 | 0.1 | 0.1 | 96.7 | 97.9 |
| Estonia | 39.2 | 45.0 | 32.3 | 36.5 | 19.4 | .. | .. | .. | .. |
| Lithuania | 19.3 | 25.9 | 12.6 | 17.3 | 26.9 | .. | .. | 99.1 | 98.9 |
| Latvia | 38.5 | 42.9 | 29.2 | 33.7 | 38.7 | .. | .. | 81.7 | 88.5 |
| Hungary | 20.1 | 23.4 | 11.3 | 12.4 | 6.6 | 33.8 | 46.4 | 97.9 | 98.3 |
| Poland | 17.9 | 22.4 | 7.4 | 10.1 | 17.3 | 63.8 | 55.2 | .. | .. |
| Romania | 11.4 | 17.7 | 2.1 | 3.5 | .. | .. | 89.7 | .. | .. |
| Slovenia | 17.7 | 20.3 | 6.4 | 8.0 | .. | .. | .. | .. | .. |
| Slovakia | 14.3 | 16.4 | 9.4 | 11.0 | 6.3 | 1.7 | 3.3 | 90.0 | 91.5 |
| CEE-MS (weighted) | 18.2 | 22.5 | 9.2 | 11.6 | .. | .. | .. | .. | .. |
| CEE-MS (unweighted) | 21.4 | 25.9 | 12.9 | 15.7 | .. | .. | .. | .. | .. |
| Euro area | 53.7 | 54.0 | 38.0 | 38.6 | .. | 1.4 | 1.4 | 97.3 | 97.4 |

Source: Eurostat, ECB, NCBs, UniCredit Group, OeNB.

¹ In % of GDP.

² In %, annual average.

³ In %.

⁴ With a maturity of more than five years.

The OeNB Euro Survey in Central, Eastern and Southeastern Europe – The 2008 Spring Wave Update

This paper presents the main results of the second wave of the OeNB Euro Survey conducted in Central, Eastern and Southeastern Europe (CESEE) in May/June 2008. The results on foreign currency-denominated assets, both cash and deposits, broadly confirm the picture obtained from the first wave of the survey, namely that the euro plays a dominant role throughout the CESEE region. New evidence on foreign currency loans (FCLs) reveals that the share of FCLs in total household loans is substantial, both in Central and Eastern Europe (CEE) and Southeastern Europe (SEE). The article for the first time presents survey results on people's general economic sentiment, comprising their assessment of the present and future economic situation, perceived and expected inflation and expected exchange rate developments. Finally, the paper provides an update on the expected date of euro adoption in the EU Member States surveyed.

Sandra Dvorsky,
Thomas Scheiber,
Helmut Stix¹

1 Introduction

This article presents results of the second wave of the OeNB Euro Survey, which was conducted in Central, Eastern and Southeastern Europe (CESEE) in May/June 2008. Our contribution serves a twofold purpose: On the one hand, it provides an update of the results obtained from the first survey wave carried out six months earlier.² On the other hand, the article summarizes some new results of the survey, for instance on foreign currency loans (FCLs) and results on general economic sentiment, which have not been presented before.

The paper is structured as follows. Section 2 recalls the main features of the OeNB Euro Survey. Section 3 deals with the different dimensions of financial euroization,³ presenting results on foreign currency cash (FCC) holdings, foreign currency deposits (FCDs) and survey data on FCLs that were first compiled in the 2008 spring survey wave. Section 4 summarizes respondents' statements on general economic sentiment, including e.g. their assessment of the present and future economic situation, perceived and expected inflation and expected exchange rate developments. Section 5 provides an update on the expected date of euro adoption in the EU Member States surveyed. Section 6 concludes.

2 The OeNB Euro Survey – Main Features

The OeNB Euro Survey is conducted every half year. The first wave had been carried out in October/November 2007 and the second wave followed in May/June 2008. The geographical scope of the survey comprises 11 countries,⁴ namely six

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² For the results of the first wave, see Dvorsky, Scheiber and Stix (2008).

³ In this paper, the term euroization refers to the de facto use of the euro. De iure euroization, by contrast, is defined as a country's (unilateral) adoption of the euro as legal tender. For more definitions and some theoretical aspects of currency substitution in CESEE, see Backé, Ritzberger-Grünwald and Stix (2007).

⁴ 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.

EU Member States (Bulgaria, Czech Republic, Hungary, Poland, Slovakia and Romania) and five EU candidate and potential candidate countries⁵ (Albania, Bosnia and Herzegovina, Croatia, FYR Macedonia⁶ and Serbia). The current 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>).

For the second wave of the survey, the questionnaire remained basically unchanged, with only few minor adjustments. As future waves are likewise bound to be repeated with a broadly unchanged questionnaire, the number of observations will steadily increase over time.

As previously pointed out (Dvorsky, Scheiber and Stix, 2008), the results of the OeNB Euro Survey have to be interpreted with caution for several reasons. First, the results are likely to be subject to underreporting given the sensitive nature of some questions. Second, for several questions the number of available observations is generally very low. Third, it is important to bear in mind that the survey focuses on private individuals – it does not cover the corporate sector.

Despite these limitations, the OeNB Euro Survey is a very useful and unique source of information, in particular on various aspects of financial euroization in CESEE, serving as an input for further in-depth research on euroization in the region (see e.g. Stix, 2008⁷).

3 The Extent of Euroization in the Region

The main purpose of the OeNB Euro Survey is to shed some light on the extent of euroization throughout the region. In this vein, the second wave of the survey again centered on the set of questions dealing with the distribution and amounts of FCC holdings and FCDs. In the following, aggregated responses on FCC holdings and FCDs of the 2007 fall wave and the 2008 spring wave will be presented (see charts 1 and 2 as well as table 1). The questionnaire for the first time also covered the issue of FCLs.

3.1 Foreign Currency Cash Holdings

As to FCC holdings, the second wave confirmed the overall picture painted by the first survey wave. First, the share of respondents who said that they held foreign cash is substantial in some countries and varies considerably across countries, ranging from 9% in Hungary to 43% in the FYR Macedonia (see chart 1). Second, it becomes evident from the currency breakdown that the euro continues to play a predominant role in all countries analyzed, with the Southeastern European (SEE) countries registering the highest euro cash holding rates. Third, in all countries

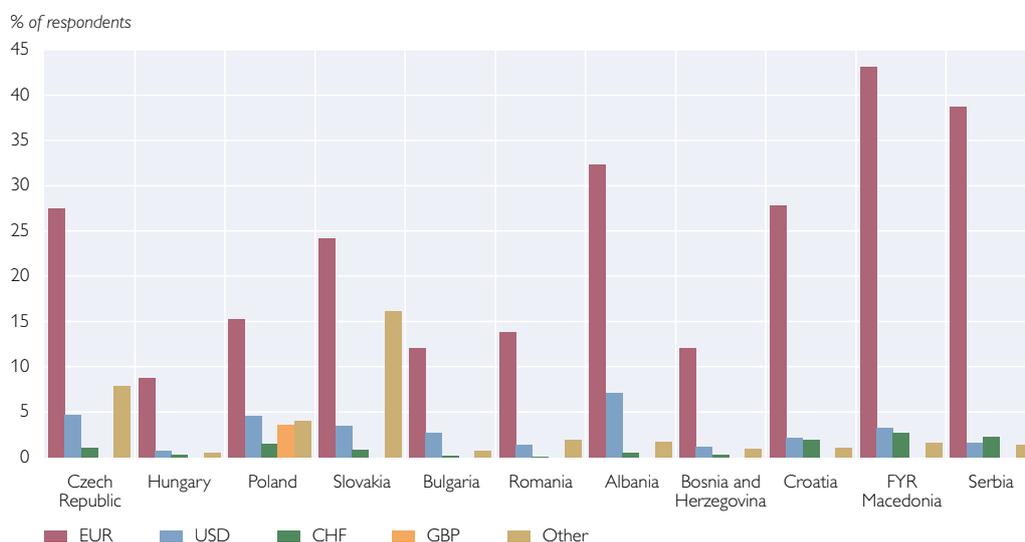
⁵ The survey does not cover Montenegro and Kosovo, which have both unilaterally introduced the euro.

⁶ “FYR Macedonia” refers to the Former Yugoslav Republic of Macedonia.

⁷ Stix (2008) examines the reasons for the high degree of currency substitution in Slovenia, Slovakia and Croatia. Using the OeNB Euro Survey results, he finds that, apart from networking effects and remittances, socio-demographic factors (income levels, education, age) play a more important role than expectations about exchange rate or interest rate developments.

Chart 1

Share of Respondents Holding Foreign Cash



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

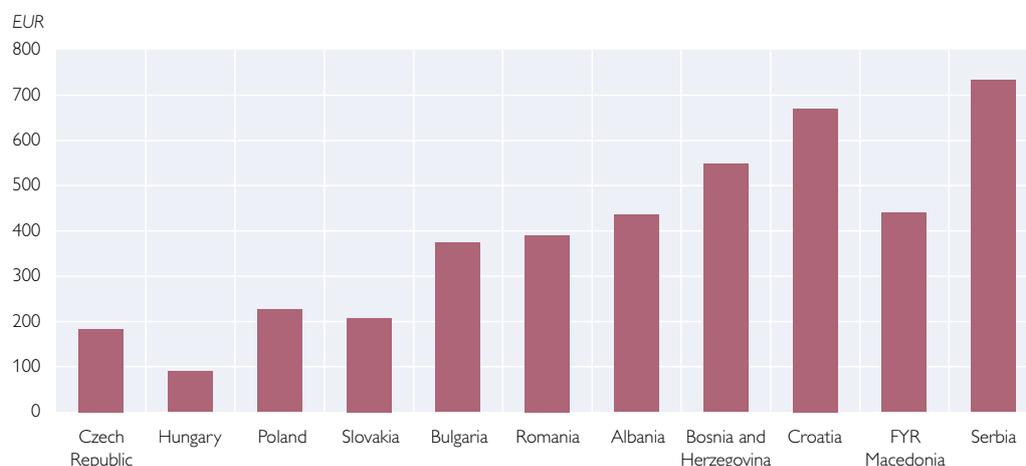
Note: Only the survey conducted in Poland contained questions regarding GBP holdings.

surveyed, the share of respondents reporting U.S. dollar-denominated cash holdings is substantially lower than that of euro cash holders. Fourth, cash holdings denominated in foreign currencies other than the euro and the U.S. dollar play a very limited role. In the Czech Republic, a comparatively high share of respondents (around 8% in both waves) reported to have “other” foreign cash holdings, which we presume to be denominated mostly in Slovak koruna. It will be interesting to observe whether this category decreases once Slovakia will have introduced the euro.

As to median amounts of euro cash reported by those interviewees who said they held euro cash, it is important to bear in mind that the figures are likely to be underreported. In some countries, respondents nevertheless acknowledged holding comparatively high amounts (see chart 2), which is even more remarkable given the interview format (face-to-face interview at the respondent’s home). Furthermore, figures may be biased owing to item nonresponse: Averaged out across all countries, 16% of the respondents who reported euro cash holdings either refused to state, or replied that they did not know, the specific amount.⁸ Compared with the first wave of the survey, the overall picture remained virtually unchanged and still appears to be plausible: Euro cash holdings in SEE countries are substantially higher than in Central and Eastern Europe (CEE). Moreover, as already evidenced in the 2007 fall wave, the indicated values continue to differ considerably from country to country, with the median per capita amounts ranging from EUR 90 (Hungary) to more than EUR 730 (Serbia).

⁸ Nonresponse rates (“no answer” plus “don’t know” entries) differed considerably across countries, with the highest nonresponse rates reported for some SEE countries (e.g. 34% for Serbia and 32% each for Romania and Bulgaria) and relatively low rates for Slovakia (4%) and the Czech Republic (6%).

Chart 2

Respondents Holding Euro Cash: Median Amounts

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

Note: The chart shows median holdings of euro. Values are based on categorical answers. The median is calculated by linearly interpolating between class boundaries.

To sum up, a high proportion of respondents in SEE said they held euro cash, and the amounts they hold are comparatively large. While the share of professed euro cash holders is also considerable in CEE, the reported amounts are smaller. We therefore conclude that the amount of euro cash in circulation is considerably higher in SEE than in CEE, which may be attributable to differing motives for holding euro cash in CEE and SEE:⁹ In the SEE countries, people tend to agree with the statement that their euro cash holdings serve the purpose of a general reserve or precautionary measure. By contrast, in CEE, these holdings are mostly meant for shopping trips abroad (for a more detailed discussion of motives, see Dvorsky et al., 2008).

3.2 Foreign Currency Deposits

According to the OeNB Euro Survey results, the degree of dissemination of euro-denominated deposits is very low in all countries analyzed. A mere 2.5% of households in CEE and 8.4% in SEE reported to hold savings deposits denominated in euro. It follows that, even after the completion of two survey waves, the number of available observations is still comparatively low for some countries.

As to the Euro Survey results on deposit euroization, the share of respondents who indicated that they have one or more savings deposits – either in local or foreign currency – is still very low compared with EU standards, ranging from just 6% in Bosnia and Herzegovina to 39% in Slovakia (see table 1).¹⁰ Second, the responses reveal that the shares of FCDs in savings deposits are very heterogeneous across countries, with relatively low shares for the CEE countries, interme-

⁹ For more explanations for euroization in the region, see e.g. Ritzberger-Grünwald and Stix (2007).

¹⁰ By contrast, according to a household survey carried out in Austria, 93% of all Austrian households own savings deposits (see Beer et al., 2006).

Table 1

Foreign Currency Deposits

| | Share of respondents with ... | | |
|------------------------|---|---|---|
| | ... a savings deposit (% of respondents) | ... an FCD (% of savings deposit holders) | ... an FCD denominated in euro (% of FCD holders) |
| Czech Republic | 35.5 | 8 | 92 |
| Hungary | 22.9 | 10 | 83 |
| Poland | 18.5 | 14 | 70 |
| Slovakia | 38.6 | 11 | 87 |
| Bulgaria | 22.2 | 31 | 84 |
| Romania | 14.8 | 36 | 88 |
| Albania | 20.0 | 57 | 86 |
| Bosnia and Herzegovina | 6.0 | 77 | 89 |
| Croatia | 26.8 | 62 | 93 |
| FYR Macedonia | 17.5 | 67 | 93 |
| Serbia | 9.8 | 84 | 95 |

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

Note: For some countries the number of observations is low and hence computed shares may not be reliable.

diated levels for Bulgaria and Romania and high shares for the other SEE countries. Third, the survey results indicate that in all countries under review, the bulk of FCDs is denominated in euro. This outcome is largely in line with aggregate data collected by the ECB (see ECB, 2008). It is interesting to note that in Slovakia, the share of euro-denominated FCDs reported in spring 2008 remained unchanged from the figure reported six months earlier.

We refrain from presenting detailed results on median FCD amounts, given the underreporting problem and the still very low number of observations. In general, it can be stated that the euro amounts held in savings deposits are significantly higher than those held in cash. As a case in point, the cash holdings reported for the Czech Republic and Hungary amount to around EUR 180 and EUR 90, respectively. By contrast, the median amounts of euro savings deposits were found to be more than ten times higher in both countries.

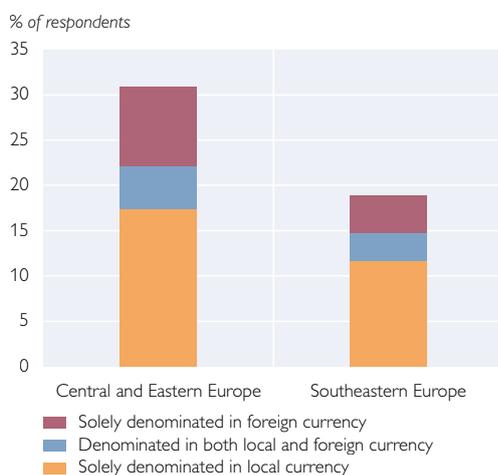
3.3 Foreign Currency Loans

The 2008 spring wave of the OeNB Euro Survey for the first time contained a set of questions on foreign currency-denominated loans.¹¹ While, in principle, information on the extent of loan euroization is available from aggregate statistics (see e.g. ECB, 2008), the OeNB Euro Survey results provide valuable additional information. First, the survey data allow for drawing inferences about the distribution of FCLs among the population, also along socio-demographic lines. Second, they provide information on the motives for holding such loans, thus complementing the economic literature on the determinants of credit euroization (see e.g. Luca and Petrova, 2008). Third, the survey results will provide the basis for future research dedicated to assessing how FCLs are related to savings deposits.

¹¹ Given the comparatively low level of foreign currency loans in the Czech Republic and in Slovakia, this set of questions was not asked in these two countries.

Chart 3

Dissemination of Loans and Foreign Currency Loans



Source: OeNB Euro Survey 2008 Spring Wave.

In view of the low number of observations available after only one survey wave for the FCL questions, the survey results were aggregated for both the CEE and the SEE region. Chart 3 displays the survey results on the dissemination of FCLs and provides an overview of FCL shares relative to total loans in the respective region. The share of people who answered that they had taken out a loan is considerably higher in CEE than in SEE. Furthermore, the share of foreign currency loans in total loans is substantial in both regions, running to more than 43% in CEE and 38% in SEE.¹² These results are broadly in line with aggregate data on household loans (see e.g. Basso, Calvo-Gonzalez and Jurgilas, 2007).

The questionnaire also explores possible motives for taking out a loan in foreign currency (see chart 4). Particularly in CEE, many respondents agreed with the notion that “foreign currency loans are cheaper than local currency loans.” This picture largely corresponds with findings in recent literature (see Rosenberg and Tirpák, 2008¹³). However, this statement received considerably less support from the interviewees in SEE. Furthermore, both in CEE and in SEE, a considerable share of respondents agreed with the statement that they had taken out an FCL “because their bank had advised them to do so.”¹⁴ In both regions some people agreed with the statement that “the interest rate in foreign currency is more stable than that of the local currency” and reported that this consideration had been a reason for taking out an FCL.

To sum up, the share of FCLs in total household loans seems to be substantial, both in CEE and SEE. With regard to the motives for taking out an FCL, economic considerations – as opposed to more personal reasons – seem to have played a decisive role.

4 Current Economic Sentiment

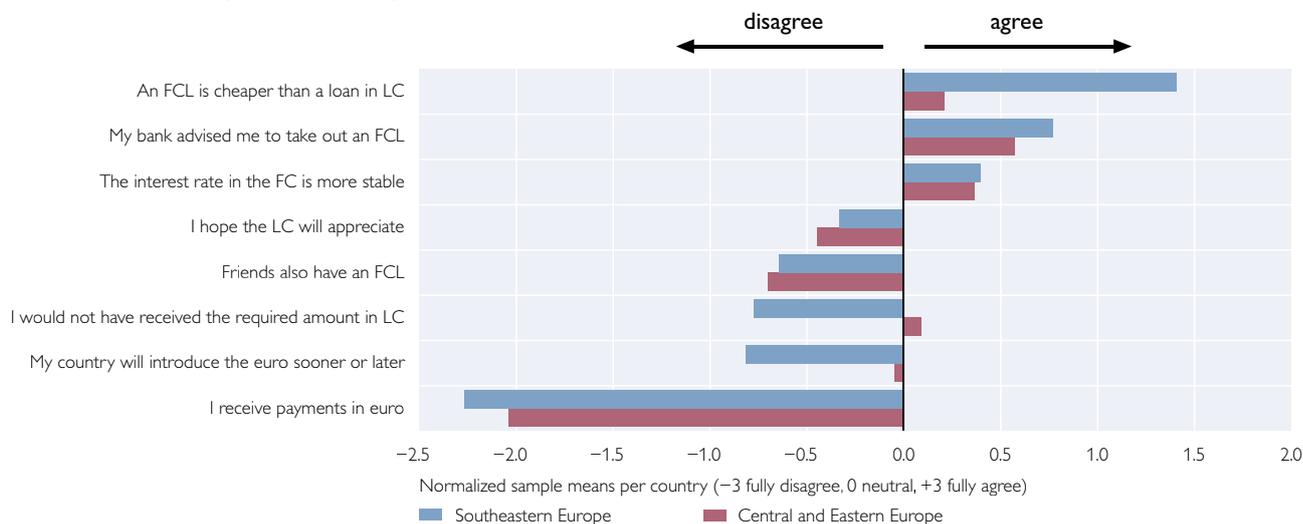
Another interesting set of questions is meant to shed light on general economic sentiment. These Euro Survey questions were posed to all interviewees, irrespective of whether they reported foreign currency holdings or not, and the answers reflect the economic sentiment at the time when the 2008 spring survey wave was

¹² Share of loans which are exclusively or (at least) partly denominated in foreign currency, as a percentage of total loans.

¹³ Rosenberg and Tirpák (2008) analyze the determinants of foreign currency borrowing in the new EU Member States and conclude that the growing euroization of liabilities can be primarily explained by interest rate differentials.

¹⁴ Against the background of the current financial crisis, several subsidiaries of Western European banks in CESEE have in the meantime announced that they would curtail foreign currency lending in the region.

Motives for Taking Out a Foreign Currency Loan



Source: OeNB Euro Survey 2008 Spring Wave.

Note: Respondents were asked whether they agreed or disagreed on a scale from 1 (fully agree) to 6 (fully disagree) with the statements above. FC stands for foreign currency, LC for local currency.

conducted. The questionnaire dealt, for instance, with people's views on the general economic situation and its future development, with perceived and expected inflation and exchange rate expectations.

4.1 Assessment of the Economic Situation

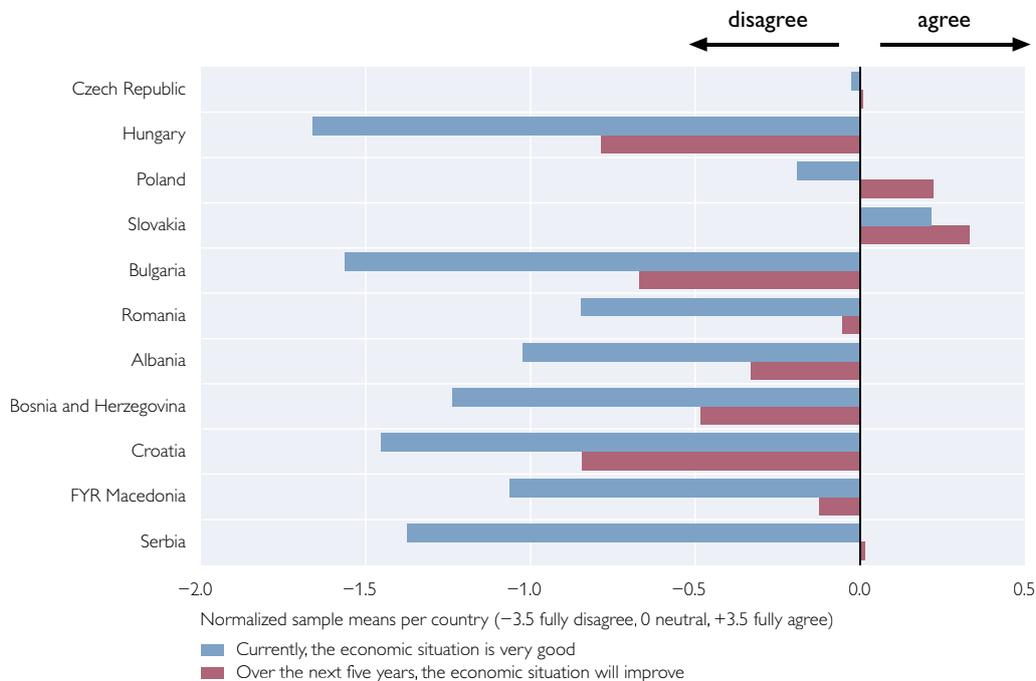
Respondents were requested to appraise the current economic situation and to state whether they expected the economy to improve over the next five years. On average, the perception of the present economic situation is rather negative in all countries surveyed, thus broadly confirming the picture which was already obtained from the first survey wave six months earlier (see chart 5). In particular for Hungary and Bulgaria, the general sentiment largely corresponds with macro-economic performance, which had fallen short of the regional average in several aspects. The only exception in this context is Slovakia, where economic performance was reported to be considerably better than in the other countries of the region in both the first and the second survey wave. It is reasonable to assume that the prospective introduction of the euro, with negotiations having already reached the final stage at the time of the second survey wave, had led to a more positive sentiment among the population.

On the future economic development, slightly positive expectations are reported from Poland and, again, from Slovakia, while in all other countries surveyed the general sentiment was found to be rather pessimistic. This picture remained more or less unchanged from the first survey wave.

4.2 Perceived and Expected Inflation

Furthermore, the questionnaire also touched on the issue of inflation perceptions. It is important to note that the results reflect respondents' assessment of price developments as at May/June 2008. In all countries analyzed, an average 79% of

Assessment of the Current and Future Economic Situation



Source: OeNB Euro Survey 2008 Spring Wave.

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

the interviewees agreed with the statement that “prices had risen a lot” during the past 12 months.¹⁵ Particularly high shares of respondents supporting this view were reported from Bosnia and Herzegovina (94%), Bulgaria (90%) and Hungary (85%). This picture may to some extent reflect actual inflation developments, which had been particularly worrying in these countries compared with other countries in the region (see e.g. Recent Economic Developments in this issue). Again, the only exception in this context is Slovakia, where only 53% agreed that “prices had risen a lot” over the past year. This suggests that the population had actually taken note of the country’s efforts to keep inflation under control in order to fulfill the Maastricht criteria. Judged by the results of the first wave of the OeNB Euro Survey, the picture had worsened substantially throughout the region in the subsequent six months: In fall 2007, only an average 63% of the interviewees in CEE and SEE had agreed with the statement that “prices had risen a lot,” with Slovakia, the Czech Republic and Croatia having even posted shares of below 40%.

On the issue of expected inflation, an average 77% of the respondents expected inflation to increase “more rapidly” or at least “at the same rate” over the next 12 months, Slovakia being no exception in this context. Interestingly, the responses on expected inflation render a rather similar picture across all countries

¹⁵ Alternative answers offered by the questionnaire were that prices “had risen moderately,” “had stayed about the same” or “had fallen” over the past 12 months.

surveyed, although official country forecasts of inflation differ substantially (see e.g. Havlik and Holzner, 2008).

In a nutshell, expected inflation seems to have remained broadly unchanged from the first survey wave.

4.3 Expected Exchange Rate Developments

The questionnaire also explores people's expectations of exchange rate developments over the next five years. Here, the picture that emerged is quite mixed. While in most countries between 30% and 50% of the interviewees agreed with the statement that the "local currency will lose value against the euro over the next five years," in Hungary more than 70% of the respondents supported this view.¹⁶ On the other end of the spectrum, approximately 70% of the Slovak and the Czech interviewees said that their local currencies would "stay the same" or even "gain value" vis-à-vis the euro. The result for Slovakia possibly reflected the appreciation of the Slovak koruna against the euro plus the – presumably widespread – expectation that the exchange rate would be irrevocably fixed once the euro was introduced. It is not surprising that for this question, the share of interviewees who answered "I don't know" was comparatively high in most countries, ranging from 8% (Hungary) to 27% (Romania).

5 Expected Date of Euro Introduction

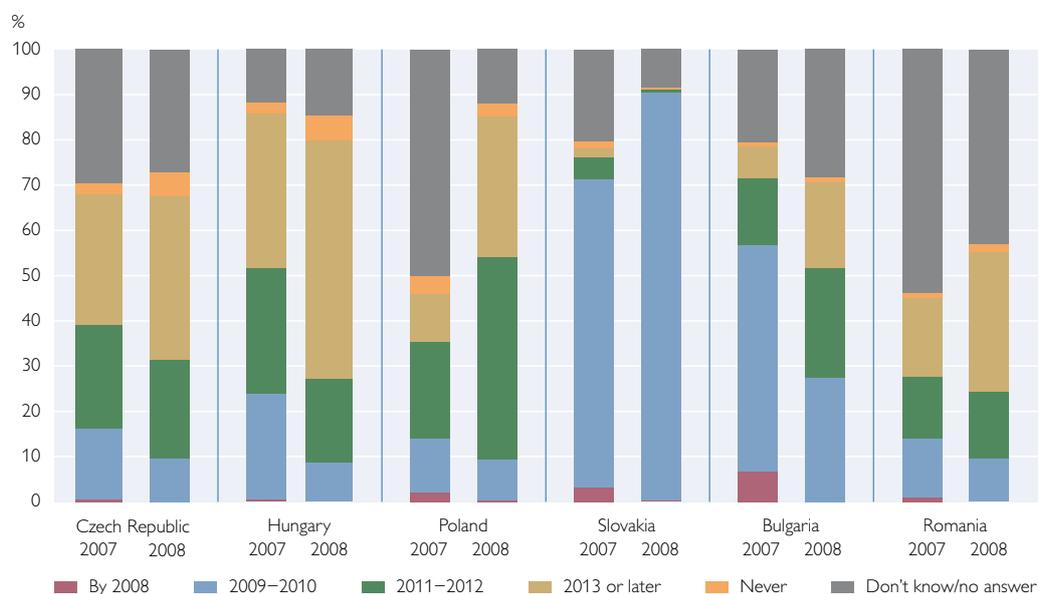
In the OeNB Euro Survey, people are also asked when they expect the euro to be introduced in their respective country. When comparing the 2008 spring and 2007 fall wave results for the six EU Member States, it comes as no surprise that the share of respondents in Slovakia who expect the euro to be introduced by 2009 or 2010 has increased from over 70% to more than 90%. In Poland, the percentage of interviewees who expect the euro to be adopted by 2012 at the latest has likewise risen considerably compared with the first survey wave. At the same time, the share of "I don't know" answers has decreased substantially.¹⁷ By contrast, in Bulgaria and Hungary, the percentage of respondents expecting the euro's introduction by 2012, has shrunk markedly. In Bulgaria, this may be attributable to a certain degree of resignation, as the country has yet to enter ERM II even though the government had pledged to join "at the earliest date possible." In the case of Hungary, the decrease may rather reflect the perceived worsening of the general economic situation (see section 4.1). For the Czech Republic and Romania, the expected date of euro introduction remained broadly unchanged from six months earlier.

Comparing the results of the 2008 spring wave of the OeNB Euro Survey with survey data of the most recent Flash Eurobarometer (European Commission, 2008) for the six EU Member States, we find that they are broadly consistent in particular for Slovakia, Poland and Bulgaria. For the other three Member States,

¹⁶ Interestingly, in both Bulgaria and Bosnia and Herzegovina, around 40% of all respondents agreed with the statement that their local currency "would lose value against the euro" despite these countries' long-standing currency board arrangements with a fixed peg to the euro.

¹⁷ This development may be ascribable to the change in Poland's political landscape in the wake of the October 2007 parliamentary elections, which had strengthened political parties in favor of the country's entry into the euro area.

Expected Date of Euro Adoption – Comparison of 2007 Fall and 2008 Spring Survey Results



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

where the euro's introduction is generally regarded as a more distant project, the Flash Eurobarometer responses are more positive than those of the OeNB Euro Survey.¹⁸

6 Conclusions

The 2008 spring wave of the OeNB Euro Survey broadly confirmed the findings on foreign currency cash holdings and foreign currency deposits obtained in the first wave six months earlier. The euro dominates foreign currency-denominated assets, both cash and deposits, throughout the CESEE region and plays an even more important role in SEE than in CEE.

New evidence on foreign currency loans reveals that their share in total household loans is substantial, both in CEE and SEE. Economic considerations (as opposed to more personal motives) seem to have played a decisive role in why people had opted for an FCL.

For the first time the article presents survey results on people's general economic sentiment at the time when the 2008 spring wave was conducted. The overall assessment of the current economic situation was found to be rather negative, with slightly more positive results for people's expectations about future economic developments. Perceived inflation was reported to be comparatively high in all countries surveyed (with the exception of Slovakia), thus largely reflecting actual price developments.

¹⁸ These differences might be due to the different survey methods applied (personal interviews versus telephone poll) or the different context of the overall questionnaire.

For the six EU Member States, the recent results on the expected date of euro introduction are compared with the picture obtained six months earlier. Changes and developments seem to reflect, to a certain extent, the respective government's changes in their policy on euro adoption during the past six months.

To sum up, the OeNB Euro Survey continues to provide unique information on the role of the euro in the CESEE region and is expected to deliver an increasingly reliable picture, the more often the survey is repeated.

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Financial Sector Development in Serbia: Closing Ranks with Peers¹

Stephan Barisitz,
Sándor Gardó²

After a major structural reshuffling in the early 2000s, the Serbian banking sector embarked on a rapid catching-up process. Against the background of an emerging credit boom, financial deepening has advanced rapidly in recent years, largely making up for the late onset of banking reform. However, the pace of convergence to the intermediation levels of Serbia's Central, Eastern and Southeastern European peers as well as the high degree of euroization have also raised financial stability concerns, with credit and foreign exchange risks representing the main challenges. The sector's high capitalization, its increasing efficiency, the predominance of foreign banks and the central bank's efforts to rein in lending growth to more sustainable levels are important factors in alleviating financial stability concerns. Profitability is still comparatively low, but increasing.

1 Introduction

Serbian banks and financial markets have exhibited some of the most dynamic rates of expansion among transition economies in Central, Eastern and Southeastern Europe (CESEE) in recent years. While the speed of financial growth has given rise to concern, there can be no doubt that a sizeable slice of this growth is embodied by Serbia's structural catching-up efforts with its regional peers after the "lost decade" of the 1990s. This study aims to retrace and analyze the momentous development of Serbian financial markets, in particular the banking system, since 2002. In this sense, the study constitutes an update and an extension of an earlier article in this publication's predecessor, *Focus on Transition* (Barisitz, 2003).³ In the realm of banking, the topics covered comprise the evolution of legal foundations, banking supervision, banks' asset, liability and earnings structure, bank restructuring, the role of foreign banks and FDI, credit growth, risks and reactions, and vulnerabilities. Nonbanking financial sector analysis will mainly focus on recent developments in the insurance sector, in financial leasing and in the pension fund sector, but will also include other financial market segments, such as stock and bond markets.

This study is organized along the following lines. Section 2 provides a brief overview of the development of the macrostructural background in the observation period (2002 to early 2008). Section 3 discusses reform measures targeting the legal framework. Section 4 focuses on overall banking development and reforms: The situation of the sector in 2002 is briefly outlined; this is followed by a survey of structural changes, notably the strong inflow of foreign capital. Section 5 analyzes the sector's asset and liability structure and its profitability. Section 6 is devoted to a synopsis of the sector's strengths and vulnerabilities: The recent Serbian banking and credit boom, its sources, and authorities' policy reactions are described and assessed, also in comparison with developments in neighboring peers. Moreover, the sector's economic strengths and vulnerabilities

¹ Cutoff date: August 31, 2008.

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³ While the present update also extends the survey to Serbia's nonbanking financial sector, Montenegro is excluded after having become an independent state in June 2006; data on Kosovo are also excluded.

are appraised by taking a look at the banking system's shock-absorbing capacities. Moving beyond the banking sector, section 7 provides a brief overview of recent payment system developments, while section 8 deals with nonbank financial institutions as well as with stock and bond markets. Finally, section 9 wraps up with a summarizing assessment and some conclusions.

2 Macroeconomic and Structural Background

A sound macroeconomic environment is generally seen as a prerequisite for the dynamic development of a banking system. In this respect, for many years the development of the Serbian banking sector reflected the uncertain and fragile macroeconomic environment.⁴ More recently, however, driven by strong domestic demand (mainly private consumption), economic expansion has been robust, gathering momentum particularly as of 2004, when GDP growth (in real terms) spiked at 8.2%. In 2006, the economy grew by 5.6%, while in 2007 growth reached 7.1% (see table 1). Despite a difficult global environment, the Serbian economy has so far retained its strong momentum, with GDP growth having reached 7.3% year on year in the first half of 2008. This brisk growth, (first) successes of macrostabilization, and fiscal reforms have improved the country's budgetary performance, leading to growing budget surpluses in 2004 and 2005. However, some fiscal loosening has emerged more recently. This loosening, strong wage hikes in the public sector, and the gathering credit boom and consumer buying spree have been fueling demand and economic activity most recently. As a result, the current account deficit widened to 10% of GDP in 2006 and further to around 13% in 2007, which may point to a degree of overheating and which poses questions as to external sustainability over the medium to longer term.

In the years 2002 to 2006, the current account deficit was covered to a considerable degree by foreign direct investment (FDI) inflows (including a few major successful privatizations to foreigners in 2006). However, in 2007, FDI inflows decelerated sharply as the privatization process slowed down against the background of rising political uncertainties. In this respect, while privatization and restructuring have made overall progress since 2004, the public sector still accounted for 40% to 45% of GDP in 2007.⁵ In early 2005, a new enterprise bankruptcy law entered into force, which enhanced the rights of creditors. However, implementation has encountered obstacles. For instance, collateral recovery is complex and time-consuming. State subsidies to often inefficient socially owned companies are still significant. With limited industrial competitiveness, corporate reforms remain a key challenge.

After the inflationary spike in 2005 (year-end retail price inflation: 17.7%), the central bank, Narodna banka Srbije (NBS), loosened its managed floating exchange rate regime (in place since early 2003 and geared to a gradual nominal depreciation of the dinar). In September 2006, the monetary authority adopted a new policy framework that focused on achieving price stability through numeric inflation objectives, which can be viewed as a kind of informal inflation targeting. A substantial nominal dinar appreciation over the second half of 2006 together

⁴ See Barisitz (2003, pp. 191–195).

⁵ EBRD (2007).

Table 1

Main Macroeconomic Indicators

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 ⁴ |
|--|------|------|-------|------|------|-------|-------------------|
| GDP growth (real, annual change, %) | 4.2 | 2.8 | 8.2 | 6.0 | 5.6 | 7.1 | 7.3 |
| Industrial production (real, annual change, %) | 1.8 | -3.0 | 7.1 | 0.8 | 4.7 | 3.7 | 4.1 |
| Unemployment rate (%) ¹ | 13.3 | 14.6 | 18.5 | 20.8 | 20.9 | 18.1 | 13.3 |
| Inflation (RPI, end of period, %) | 14.8 | 7.8 | 13.7 | 17.7 | 6.6 | 10.1 | 12.1 |
| Exchange rate (period average, RSD/EUR) | 60.7 | 65.1 | 72.6 | 82.9 | 84.2 | 80.0 | 81.8 |
| Exchange rate (period average, RSD/USD) | 64.3 | 57.5 | 58.4 | 67.0 | 67.3 | 58.5 | 53.5 |
| Policy rate (period average, %) ² | 12.8 | 10.4 | 14.9 | 15.6 | 18.0 | 10.3 | 13.8 |
| Broad money (end of period, annual change, %) | 62.9 | 12.6 | 17.0 | 31.4 | 45.2 | 39.9 | 26.9 |
| Broad money (end of period, % of GDP) | 10.9 | 10.7 | 10.2 | 11.0 | 13.7 | 16.3 | 18.8 |
| Budget balance (consolidated general government, % of GDP) | -3.1 | -1.1 | 0.9 | 1.9 | 1.7 | 0.5 | -1.0 |
| Public debt (% of GDP) | 69.5 | 64.3 | 53.3 | 50.3 | 36.2 | 29.4 | 25.3 |
| Current account balance (% of GDP) | -4.1 | -7.5 | -13.4 | -8.4 | -9.8 | -12.9 | -19.3 |
| Net FDI inflows (% of GDP) | 3.0 | 6.7 | 3.9 | 5.9 | 14.1 | 5.4 | 6.7 |
| Gross external debt (end of period, % of GDP) | 70.8 | 66.7 | 57.5 | 59.3 | 64.6 | 64.1 | 62.2 |
| – Private debt (% of gross external debt) | 21.6 | 23.1 | 31.3 | 41.0 | 56.9 | 65.5 | 67.6 |
| – Short-term debt (% of gross external debt) | 9.1 | 7.8 | 7.1 | 9.8 | 8.5 | 7.4 | 6.2 |
| Foreign exchange reserves (end of period, % of GDP) ³ | 14.4 | 17.4 | 17.3 | 22.4 | 39.2 | 34.7 | 30.4 |

Source: NBS, Statistical Office of the Republic of Serbia, Ministry of Finance of the Republic of Serbia.

¹ According to labor force survey, 2008: First quarter.

² 2002–2006: Weighted average interest rate on securities used by the NBS in open market operations. 2007: Two-week repo rate.

³ Only foreign exchange reserves of the NBS.

⁴ Data for the first half of 2008, thus figures expressed as a % of GDP are not directly comparable with full-year figures.

with considerably rising interest rate levels and the government's (temporary) freezing of controlled prices contributed to a decline of year-end inflation to 6.6% in 2006. Given sharply rising food prices (due to both adverse domestic weather conditions and global price movements), soaring energy prices and also demand-pull factors (strong domestic demand as a result of robust wage and credit growth), inflation was back in the double digits at the end of 2007 (see table 1). For similar reasons, inflationary pressures remained pronounced also in the first half of 2008, with retail price inflation reaching 12.1% in June. Strong foreign direct and portfolio investment inflows (including privatization proceeds) have allowed the central bank to steadily increase its foreign exchange reserves to a comfortable level of about one-third of GDP and have permitted the authorities to prepay some of their foreign debt. While short-term macroeconomic perspectives remain relatively favorable, latent political instability (though possibly contained since the formation of a new government in mid-2008), corruption⁶ and problems in the functioning of the judicial system continue to weigh on the business climate. The World Bank's Doing Business 2008 report ranks Serbia 86th out of a total of 177 countries, behind Bulgaria (46), Romania (48), FYR Macedonia⁷ (75) and Montenegro (81), but before Croatia (97), Bosnia and Herzegovina (105) and Albania (136).

⁶ As measured by the governance indicators of the World Bank, Serbia's control of corruption in 2007 (governance score: -0.41) is slightly better than in the neighboring countries Bosnia and Herzegovina and Montenegro, and much better than in Albania, but weaker than in peers Croatia, Romania and Bulgaria. Looking at Transparency International's corruption perception index 2007, Serbia ranks 79th, on a par with Georgia, Saudi Arabia and Trinidad and Tobago.

⁷ Former Yugoslav Republic of Macedonia.

Chart 1

Monetary Developments in Serbia



3 Evolution of the Legal Framework for Banking

The Bank Insolvency Law (2001) and the Law on Banks and Other Financial Organizations (mid-2002) as well as the Law on Payment Operations (late 2002), and their subsequent amendments, laid the foundation for market-oriented banking in Serbia.⁸ However, the speed of economic change rendered adjustments necessary early on. At end-2002, minimum capital requirements for credit institutions were raised, which supported consolidation tendencies. The new accounting law enacted in early 2003 required all banks to adopt IAS (International Accounting Standards) as an accounting framework as from 2003. This has set off a gradual and not yet fully completed change from traditional formalistic and compliance-oriented bookkeeping and supervision behavior to substantive risk-based approaches.

To increase transparency and simplify lending, the Association of Serbian Banks established a Credit Bureau at the beginning of 2004, which collects data on credit outstanding and default information about bank clients, including households. In mid-2005, a new Law on Deposit Insurance providing for compulsory insurance of accounts of natural persons up to a limit of EUR 3,000 was passed.

While it is still evolving, transition toward risk-based practices has been supported by the enactment of a new Law on Banks, which entered into force in December 2005 (see box 1). This piece of legislation aligned key regulatory matters with Basel Core Principles for Effective Banking Supervision and EU directives: It prescribed improved systems for banks' risk monitoring and governance,

⁸ See Barisitz (2003, pp. 198–200).

introduced consolidated supervision, tightened related party exposure limits as well as provisioning requirements, and strengthened banks' licensing procedures by applying fit and proper criteria to founders and acquirers of shares. While the legal framework was judged to meet international standards by mid-2006,⁹ full enforcement of the new rules and elimination of regulatory forbearance remain challenges yet to be surmounted.

Box 1

Chronology of Major Banking Sector Developments and Reforms in Serbia

| | | |
|------|-----------|---|
| 2001 | May | <i>Narodna banka Jugoslavije (NBj) carries out comprehensive assessment of sector, elaborates bank restructuring strategy (with IMF and World Bank assistance). Tightly managed float, reference currency: euro (since December 2000).</i> |
| | July | <i>Raiffeisenbank Jugoslavija set up.</i> |
| | October | <i>Enactment of the Law on Bank Rehabilitation, Bankruptcy and Liquidation and the Law on the Federal Agency for Deposit Insurance and Bank Rehabilitation.</i> |
| | December | <i>Closure of 19 small and undercapitalized credit institutions.</i> |
| 2002 | January | <i>Serbian authorities liquidate four large, distressed and deeply insolvent banks (Beobanka, Beogradska banka, Investbanka and Jugobanka), which comprised 57% of the sector's balance sheet total and 37% of the sector's work force.</i> |
| | April | <i>Foreign Exchange Law enacted</i> |
| | June | <i>NBJ establishes the Central Credit Registry for recording data on banking claims from large debtors.</i> |
| | July | <i>Amendments to Law on Banks and Other Financial Organizations strengthen NBJ's powers. The central bank is authorized to modify regulations and supervisory rules without parliamentary consent. At the same time, asset classification and provisioning rules are tightened. Minimum capital requirement for banks to be increased to EUR 10 million by end-2003.</i> |
| | August | <i>Serbia launches a EUR 4.2 billion issue of state obligations (savings bonds) in exchange for households' "frozen foreign exchange deposits." Serbian government acquires majority stakes in (i.e. partly nationalizes) 16 medium-sized banks (comprising over one-half of the sector's balance sheet total) by converting state claims (related to guarantees for banks' foreign exchange liabilities to Paris and London Clubs and related to frozen foreign exchange deposits) into shares (debt-equity swap) to facilitate privatization.</i> |
| 2003 | January | <i>Law on Payment Operations enacted. Bureaux for Clearing and Payment (Zavodi za obračun i plaćanja/ZOP) abolished and replaced by bank-based settlement. New accounting law passed, requiring all credit institutions to adopt IAS (International Accounting Standards)/IFRS (International Financial Reporting Standards) as permanent accounting framework.</i> |
| | February | <i>NBJ becomes NBS (Narodna banka Srbije).</i> |
| | March | <i>Eurobank EFG (Greece) acquires Postbanka, later renames it Eurobank EFG stedionica.</i> |
| | July | <i>New law on the National Bank of Serbia enacted.</i> |
| 2004 | September | <i>Credit Bureau established by Association of Serbian Banks, collecting data on indebtedness of prospective clients.</i> |
| 2005 | February | <i>New enterprise bankruptcy law enters into force. Creditor rights strengthened. Banca Intesa acquires Delta banka (for EUR 335 million), Alpha Bank (Greece) buys Jubanka.</i> |
| | April | <i>Minimum capital adequacy ratio raised from 8% to 10%.</i> |
| | July | <i>New law on deposit insurance enacted. Deposit Insurance Agency (Agencija za osiguranje depozita, AOD) provides compulsory insurance of deposits of natural persons, coverage up to EUR 3,000.</i> |

⁹ See Hayward and Westphal (2006, p. 34).

| | | |
|------|-----------|--|
| | September | NBS acquires authority for regulating and supervising the leasing industry. |
| | December | A new Law on Banks is enacted. Key regulatory matters aligned with Basel Core Principles and EU directives, including the introduction of consolidated supervision, integrated risk management systems and tightening of related party exposure limits. |
| 2006 | January | Minimum capital adequacy ratio increased from 10% to 12%. |
| | February | Loosening of managed float. |
| | March | Recapitalization of Komercijalna banka (largest state-owned bank). |
| | September | Introduction of informal inflation targeting. |
| | October | New Law on Banks enters into force. |
| | November | Sale of Vojvodjanska banka to the National Bank of Greece (for EUR 360 million). |
| 2007 | | Numerous regulatory and supervisory updates. |
| 2008 | July | New regulations in the area of supervision enter into force: They refer i.a. to bank solvency and liquidity and to the identification, measurement, management and monitoring of risks to which credit institutions are exposed, and represent an important step toward adjustment of Serbian rules to EU directives. Measures include the introduction of new capital requirements and a methodology for calculation of the capital adequacy ratio, and for the classification of balance sheet assets and off balance sheet items. |

Source: Authors' compilation.

The banking sector's institutional framework still offers room for further development. The EBRD's Banking Sector Reform Index (which measures the quality of bank regulation and supervision, banking competition and the level of financial deepening, etc.) attests Serbia a score of 2.7 (on a scale from 1 to 4+), a comparatively moderate standing (see table 2) on a par with that of all other countries in the Western Balkans but much lower than that of more advanced CESEE economies (e.g. Slovenia: 3.3, Poland: 3.7, Hungary: 4.0).

Table 2

Structure of the Banking Sector

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 ⁵ |
|---|---------|---------|---------|---------|---------|---------|-------------------|
| Number of banks (of which foreign-owned) ¹ | 50 (12) | 47 (16) | 43 (11) | 40 (17) | 37 (22) | 35 (21) | 34 (20) |
| Number of employees (in thousands) | 18.9 | 22.3 | 23.5 | 25.7 | 28.1 | 30.2 | 31.3 |
| Number of organizational units ² | 960 | 1,465 | 1,709 | 1,867 | 2,158 | 2,435 | 2,564 |
| Market share of state-owned/socially owned banks ¹ (% of total assets) | 49.4 | 34.1 | 23.4 | 23.9 | 14.8 | 15.8 | 15.9 |
| Market share of foreign-owned banks ¹ (% of total assets) | 27.0 | 38.4 | 37.7 | 66.0 | 78.7 | 75.5 | 75.0 |
| Market share of the five largest banks (% of total assets) | 46.6 | 46.2 | 46.9 | 50.3 | 47.2 | 44.6 | 46.2 |
| Herfindahl-Hirschmann index ³ | n.a. | 599 | 599 | 665 | 614 | 578 | 621 |
| EBRD index of banking sector reform ⁴ | 2.3 | 2.3 | 2.3 | 2.7 | 2.7 | 2.7 | 2.7 |

Source: NBS, EBRD, OeNB.

¹ Majority ownership.

² Including business units, branches, branch offices, teller units and agencies.

³ Sum of the squared asset shares of individual banks. The index ranges between 0 and 10,000. A figure below 1,000 suggests a nonconcentrated sector, whereas a figure above 1,800 indicates high concentration.

⁴ The scores range from 1 (little progress beyond establishment of a two-tier system) to 4+ (standards and performance of advanced industrial economies).

⁵ As of June 30, 2008.

4 Structural Development of the Banking Sector: An Overview

Following the “lost decade” of the 1990s, the new Serbian authorities carried out incisive bank restructuring measures in 2001 and 2002, which stabilized the sector.¹⁰ Once this had happened, foreign strategic investors did not wait for long to get involved and to tap the large banking potential in the last Southeastern European country whose sector was not yet dominated by FDI. Serbia then went through a radical transformation of ownership structures in but five years and in this sense “caught up” with its regional peers, who themselves had taken 10 to 15 years to arrive at a similar level.

Obviously persuaded by neighboring countries’ experiences, the central bank and the government decided to give priority to the bank privatization method of direct sales to foreign strategic investors, even if realization did not turn out to be as swift as hoped for.¹¹ Growing competition and regulatory tightening (e.g. higher capital requirements) contributed to the steady decline of the total number of banks in Serbia from 50 at end-2002 to 35 at year-end 2007. At the same time, the number of foreign-owned banks rose from 12 to 21 (see table 2). The consolidation process is still under way, with the merger activity between foreign banks’ subsidiaries currently being the main driving force behind consolidation. On this note, the number of banks continued to fall in the first half of 2008, in light of the merger of the Serbian units of EFG Eurobank. In May 2008, the NBS granted an operating license to Russia’s Moscow Bank, which started operations in August 2008, bringing the number of operating banks to 35 again.

After the carve-out in 2001 to 2002 had triggered a sharp contraction of the total number of bank employees in Serbia, strong demand for banking services and the repositioning of banks in the fight for market share brought about a steady increase of banking employment, so that the precrisis level was surpassed already in 2006. Bank staff levels nearly doubled to 31,331 between 2002 and end-June 2008. Similarly, strong demand and increasing market penetration by banking services was also reflected by a rapidly expanding banking network. The number of organizational units (including business units, branches, branch offices, teller units and agencies) has risen considerably, widening from just 960 in 2002 to nearly 2,600 at end-June 2008.

At end-2002, majority state-owned and socially owned banks still dominated the sector, but foreign-owned credit institutions had within a year doubled their share in total assets to over one quarter. Given that the sector was very small at the time and that many domestic banks were still burdened by the legacies of the past, foreign-owned competitors swiftly gathered terrain, garnering the lion’s share of rapidly growing new deposits. While initially hesitant in lending (because of the weak rule of law), foreign-owned banks subsequently became the key drivers of credit growth. As a result of a number of acquisitions and of organic growth, foreign ownership has come to dominate among the 15 largest Serbian banks (see table 2). In terms of banking sector capital, foreign banks accounted for a market share of some 70% at the end of June 2008, up from 19% in 2002, while, at the same time, their share in total banking sector assets rose from 27% in 2002 to

¹⁰ For a detailed discussion of these measures, see Barisitz (2003, pp. 198–201).

¹¹ See Gardó (2005, p. 57).

75% in June 2008 (see table 2). Although this is lower than in many other CESEE countries (e.g. the Czech Republic: 98%, Bosnia and Herzegovina: 91%, Croatia: 90%, Romania: 88%), it is on a par with the respective share in Bulgaria (75%), and exceeds that in Slovenia (29%), Latvia (56%), Poland (67%) and Hungary (68%). EU banks overwhelmingly dominate among foreign-owned institutions, and thus prevail in the sector as a whole. Especially banks from Austria, Greece, Italy and France have taken the lead, but banks from Serbia's regional peers (e.g. Hungary, Slovenia) are present as well. According to NBS data, Austrian groups (including Bank Austria, which is a member of the UniCredit Group) accounted for roughly 40% of total foreign involvement (in terms of assets), or for about 30% of Serbia's total banking sector assets in 2007. Vice versa, according to BIS data on consolidated foreign claims of reporting banks (immediate borrower basis), the exposure of Austrian banks in Serbia accounted for a fairly low 1.8% of Austrian banks' total foreign exposure and for about 3.5% of their exposure in Central and Eastern Europe in 2007.

With foreign banks increasingly gaining ground, the asset share of state-owned credit institutions fell from about 50% in 2002 to 16% in the second quarter of 2008, and domestic private banks' share was squeezed to less than 10%. Nevertheless, given the still relatively large number (eight) of banks with more or less substantial state involvement, ongoing bank privatization and related merger and acquisition activities as well as increasing competitive pressures are expected to underpin further consolidation in the years ahead.

Table 3

Ranking of Serbian Banks in Terms of Total Assets on June 30, 2008

| Bank | Main shareholder | Total assets (EUR million) | Market share (%) |
|--|--|----------------------------|------------------|
| 1 Banca Intesa a.d. Beograd | Intesa Holding International (93%), IFC (7%) | 2,758.9 | 13.1 |
| 2 Raiffeisen banka a.d. Beograd | Raiffeisen International Beteiligungsholding (100%) | 2,078.8 | 9.9 |
| 3 Komercijalna banka a.d. Beograd | Republic of Serbia (42.6%), EBRD (25%) | 1,985.6 | 9.5 |
| 4 Hypo Alpe-Adria-Bank a.d. Beograd | Hypo Alpe-Adria-Bank International AG (99.9%) | 1,576.2 | 7.5 |
| 5 Eurobank EFG Stedionica a.d. Beograd | EFG Eurobank Ergasias Athens (55.2%), EFG New Europe Holding (42.7%) | 1,287.9 | 6.1 |
| 6 Agroindustrijska komercijalna banka AIK banka a.d. Niš | ATEBANK (20.3%), Irva Beograd (9.6%), IBT (5.9%) | 1,067.4 | 5.1 |
| 7 Vojvodanska banka a.d. Novi Sad | National Bank of Greece (100%) | 1,041.3 | 5.0 |
| 8 Unicredit Bank Srbija a.d. Beograd | Bank Austria AG (99.9%) | 1,002.2 | 4.8 |
| 9 Société Générale banka Srbija a.d. Beograd | Société Générale S.A. (100%) | 838.1 | 4.0 |
| 10 ProCredit Bank a.d. Beograd | ProCredit Holding (83.3%), Commerzbank (16.7%) | 790.6 | 3.8 |
| 11 Alpha Bank Srbija a.d. Beograd | Alpha Bank A.E. Athens (100%) | 739.2 | 3.5 |
| 12 Volksbank a.d. Beograd | Volksbank International AG (95.7%) | 679.7 | 3.2 |
| 13 OTP banka Srbija a.d. Novi Sad | OTP Bank (90.4%) | 573.1 | 2.7 |
| 14 Erste Bank a.d. Novi Sad | Erste Bank der Österreichischen Sparkassen AG (74%), Steiermärkische Sparkasse (26%) | 551.1 | 2.6 |
| 15 Poljoprivredna banka Agrobanka a.d. Beograd | Republic of Serbia (20.1%), Hypo Kastodi (6.7%) | 481.9 | 2.3 |

Source: Narodna banka Srbije, OeNB.

In June 2008, Italy's Banca Intesa was the largest Serbian credit institution, with a market share of 13.1%, followed by Austrian-owned Raiffeisen banka (9.9%) and the still partially state-owned Komercijalna banka (9.5%) (see table 3). The five largest banks together accounted for 46.2% of the Serbian balance sheet total in June 2008, reflecting a relatively low degree of concentration, which is also mirrored by a Herfindahl-Hirschman Index (HHI) of 621 (see table 2). The lending business is even less concentrated, with the top five banks commanding a market share of 44.7% (HHI: 599) at end-June 2008, while in terms of deposits the top five banks held a market share of 49.6% (HHI: 706).

5 Balance Sheet Structure and Profitability of the Banking Sector

Like other emerging European economies before, Serbia experienced a strong and very swift expansion of banking activity, once the regime change and the launch of restructuring had set the stage. The balance sheet total of the banking sector doubled in relative terms from 35% of GDP in 2002 to 70% at year-end 2007, which is still below the levels witnessed in more advanced transition countries like Hungary, Slovenia or Croatia. However, Serbia has caught up with or overtaken,

Table 4

Asset Structure of the Banking Sector

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 ⁵ |
|---|-------------------|--------------|--------------|--------------|--------------|--------------|-------------------|
| | % of total assets | | | | | | |
| Claims on NBS | 17.5 | 16.4 | 16.2 | 22.5 | 36.8 | 33.9 | 31.3 |
| Credit ¹ to domestic nonbanks | 51.3 | 53.3 | 58.0 | 58.3 | 48.1 | 49.8 | 54.0 |
| of which: credit to general government | 3.6 | 3.1 | 3.7 | 2.8 | 1.8 | 0.9 | 0.9 |
| credit to households | 5.2 | 6.9 | 11.1 | 14.9 | 16.3 | 18.6 | 19.9 |
| credit to enterprises ² | 42.5 | 43.3 | 43.1 | 40.6 | 29.9 | 30.3 | 33.3 |
| Foreign assets | 15.0 | 13.2 | 10.6 | 7.3 | 4.4 | 6.6 | 4.5 |
| Other assets ³ | 16.2 | 17.1 | 15.3 | 11.9 | 10.8 | 9.7 | 10.1 |
| Total assets | 100.0 | 100.0 | 100.1 | 100.0 | 100.1 | 100.0 | 99.9 |
| Memorandum items: | | | | | | | |
| Total assets (% of GDP) | 35.2 | 38.6 | 43.0 | 52.3 | 62.4 | 70.1 | n.a. |
| Credit to domestic nonbanks (% of GDP) | 18.1 | 20.6 | 24.9 | 30.5 | 30.0 | 34.9 | n.a. |
| Credit to domestic nonbanks (nominal, annual change, %) | -32.0 | 30.7 | 47.9 | 49.5 | 15.0 | 36.4 | 31.5 |
| Credit to domestic nonbanks (real, annual change, %) | -40.8 | 21.2 | 30.1 | 27.0 | 7.9 | 23.9 | 17.3 |
| Dinar claims on domestic nonbanks (% of total credit to domestic nonbanks) ⁴ | 57.3 | 61.5 | 68.4 | 75.6 | 86.0 | 91.3 | 92.2 |
| Foreign exchange claims on domestic nonbanks (% of total credit to domestic nonbanks) | 42.7 | 38.5 | 31.6 | 24.4 | 14.0 | 8.7 | 7.8 |
| Short-term claims of domestic nonbanks (% of total credit to domestic nonbanks) | 47.2 | 48.0 | 43.9 | 43.9 | 40.1 | 39.5 | 41.9 |
| Long-term claims of domestic nonbanks (% of total credit to domestic nonbanks) | 52.8 | 52.0 | 56.1 | 56.1 | 59.9 | 60.5 | 58.1 |
| Credit to households (% of total credit to households and enterprises) | 11.0 | 13.8 | 20.6 | 26.9 | 35.3 | 38.1 | 37.5 |

Source: NBS, OeNB.

¹ Including securities as well as claims on interest and fees.

² Including other financial organizations.

³ Including fixed assets and other assets (presumably also interbank claims).

⁴ Including foreign currency-indexed claims.

⁵ June 30, 2008.

at least on this measure, countries like Poland or Romania. Credit and balance sheet growth did not take off in Serbia until 2004, though.¹² Subdued overall economic growth in 2002 and 2003 may have combined with initial lending restraint. Furthermore, banks faced a situation in which risk assessment capacities had to be created almost from scratch, when the interbank market was underdeveloped and budget constraints in the real sector were still about to harden. This period of initial reticence took place later in Serbia than in most other countries of the region, and it was shorter.

Claims on domestic nonbanks amounted to about 35% of GDP at year-end 2007, a doubling compared to 2002, and at the same time represented the largest fraction of total banking sector assets (see table 4). The strong relative contraction of claims on nonbanks in terms of total assets in 2006 can be attributed to the concomitant sharp increase in claims on the NBS (still representing about one-third of total assets in 2007) against the background of monetary tightening in 2005 and 2006 (see box 2). Moreover, this development can also be seen as a result of banks' attempt to redirect their corporate customers to parent banks abroad, most likely in order to circumvent the NBS's monetary, but also prudential and administrative regulations (see box 3), and also to be able to continue lending to the more profitable retail segment. Consequently, the share of claims on households in total assets nearly quadrupled over the years 2002 to 2007 (and increased further to around 20% in June 2008), while that of claims on enterprises fell from over 40% in the years 2002 to 2005 to about 30% in 2006 and 2007 (only to rise again to one-third of total assets in the first half of 2008). Against the background of more or less pronounced budget surpluses in 2004 to 2007, banks' claims on the general government decreased considerably from 3.7% of total assets in 2004 to 0.9% in 2007 and remained at the same level also in the first half of 2008. In light of rapid credit expansion and more profitable domestic investment opportunities (e.g. NBS bills), banks' foreign assets declined sharply from 2002, falling from 15% to 6.6% in 2007 and further to 4.5% in June 2008.

Credit institutions' liabilities are dominated by deposits of domestic nonbanks, mainly private sector deposits (see table 5). In fact, robust economic growth, improving corporate finances, labor market conditions ameliorating at long last (especially in 2007) coupled with strong wage growth and tax cuts have all contributed to solid private sector deposit growth of an average 45% in nominal terms (30% in real terms) in the period 2005 to 2007. Thus, after hovering around 45% for years, the share of domestic nonbank deposits in total liabilities increased to about 50% in 2007, prevailing at similar levels also in the first half of 2008. By the same token, the share of capital and reserves grew vigorously from 2004 to about 21% of total liabilities at end-2007 following substantial capital increases in the banking sector in 2006 and 2007 mainly against the background of prudential regulations enforced by the NBS (e.g. credit ceilings on household lending), and increased further to 23.5% of total liabilities in June 2008. At the same time, after having increased considerably for years against the background of robust credit growth, banks' foreign liabilities saw a sharp drop in 2007 on the back of banks' increased capitalization (most likely enabling them to repay foreign

¹² See *M2 Presswire* (2007).

liabilities), additional NBS action to safeguard banking sector stability (see box 3) and strong deposit growth. This also led to a pronounced improvement of banks' net foreign asset (NFA) position from –19.8% of total assets in 2006 to –11.2% in 2007. This development continued also in the first half of 2008, when banks' NFA position improved to –9.7% of total assets.

Box 2

Overview of Selected Monetary Policy Measures of the NBS since 2002

| Monetary Policy Instrument | Date | Measure |
|-----------------------------|--|--|
| Policy rate | 2002 | Weighted average interest rate on securities used in open market operations by the NBS set at 12.8%. |
| | 2003 | Weighted average interest rate on securities used in open market operations by the NBS set at 10.4%. |
| | 2004 | Weighted average interest rate on securities used in open market operations by the NBS set at 14.9%. |
| | 2005 | Weighted average interest rate on securities used in open market operations by the NBS set at 12.8%. |
| | 2006 | Weighted average interest rate on securities used in open market operations by the NBS set at 18%. |
| | September 1, 2006 | Introduction of the two-week repo rate as policy rate, set at 18%. |
| | November 3, 2006 | Policy rate cut by 50 basis points to 17.5%. |
| | November 15, 2006 | Policy rate cut by 100 basis points to 16.5%. |
| | December 8, 2006 | Policy rate cut by 100 basis points to 15.5%. |
| | December 27, 2006 | Policy rate cut by 150 basis points to 14.0%. |
| | January 31, 2007 | Policy rate cut by 100 basis points to 13.0%. |
| | March 2, 2007 | Policy rate cut by 150 basis points to 11.5%. |
| | March 30, 2007 | Policy rate cut by 100 basis points to 10.5%. |
| | May 4, 2007 | Policy rate cut by 50 basis points to 10.0%. |
| | June 1, 2007 | Policy rate cut by 50 basis points to 9.5%. |
| | August 28, 2007 | Policy rate hike by 25 basis points to 9.75%. |
| | October 29, 2007 | Policy rate cut by 25 basis points to 9.5%. |
| | December 27, 2007 | Policy rate hike by 50 basis points to 10%. |
| | February 6, 2008 | Policy rate hike by 75 basis points to 10.75%. |
| | February 28, 2008 | Policy rate hike by 75 basis points to 11.5%. |
| March 13, 2008 | Policy rate hike by 300 basis points to 14.5%. | |
| April 24, 2008 | Policy rate hike by 75 basis points to 15.25%. | |
| May 29, 2008 | Policy rate hike by 50 basis points to 15.75%. | |
| Reserve requirements | February 19, 2002 | Halving of the commercial bank reserve requirement for local currency deposits to 11.8% and imposition of a new reserve requirement at the same level for foreign currency deposits. |
| | March 26, 2002 | Increase of the minimum reserve requirement from 11.8% to 20%. |
| | March 10, 2003 | Increase of the minimum reserve requirement from 20% to 23%. |
| | April 10, 2003 | Reduction of the minimum reserve requirement from 23% to 22%. |
| | May 10, 2003 | Reduction of the minimum reserve requirement from 22% to 20%. |
| | July 11, 2003 | Reduction of the mandatory reserve requirement from 20% to 18%. |
| | August 10, 2004 | Increase of the unified reserve requirement ratio by 3 percentage points from 18% to 21%. |
| | January 10, 2005 | Extension of the minimum reserve requirement base by including commercial bank's foreign borrowings stock with a maturity of up to 4 years, and in the case of new foreign borrowings, regardless of maturity. |
| | April 10, 2005 | Broadening of the foreign exchange reserve requirement base by including liabilities to subordinated and related banks. |
| | June 10, 2005 | 1 percentage point reduction in the dinar reserve requirement rate to 20%. At the same time, 5 percentage point increase in the foreign currency reserve requirement rate from 21% to 26%. |
| | August 10, 2005 | Increase of the foreign exchange reserve requirement of banks by 3 percentage points to 29%. |
| | September 10, 2005 | Extension of the minimum reserve requirement base by including commercial banks' foreign borrowings stock with a maturity of over 4 years extended before December 31, 2004. |
| | Oktober 10, 2005 | Dinar and foreign exchange base narrowed by long-term housing loans insured with the National Housing Loans Insurance Corporation; foreign exchange base extended by inclusion of foreign liabilities arising from bank operations performed in the name and for the account of third parties. |
| | November 10, 2005 | Increase of the foreign exchange reserve requirement rate from 29% to 35%. At the same time, reduction of the dinar reserve requirement rate from 20% to 18%. |
| | November 22, 2005 | Application of the 35% minimum foreign exchange reserve requirement rate also to dinar deposits with foreign exchange indexation. |
| December 10, 2005 | Increase of the foreign exchange reserve requirement from 35% to a 38% unified rate (regardless of maturity, including dinar deposits with foreign exchange indexation) and launch of a 10% reserve requirement for leasing companies. | |

| | |
|-------------------|--|
| April 10, 2006 | Increase of the foreign exchange reserve requirement rate to 40% from 38% (including dinar deposits with foreign exchange indexation); extension of the foreign exchange base by the amount of subordinated foreign currency liabilities. Increase of the 38% ratio to 100% for deposits of leasing companies with banks. |
| May 10, 2006 | Increase of the reserve requirement to 60% from 40% on banks' external short-term borrowing and deposits from abroad with maturity up to 2 years. |
| June 10, 2006 | Increase of the reserve requirement to 60% from 18% on nonresident dinar deposits and short-term borrowing with a maturity of up to 2 years, and for liabilities with a maturity of over 2 years from 18% to 40%. |
| November 10, 2006 | Downward revision of reserve requirement ratio on the dinar base by 3 percentage points, i.e. from 18% to 15%. |
| January 10, 2007 | As of December 26, 2006, the NBS adopted a new Decision on Required Reserves of Banks with the NBS. The reserve requirement ratio on dinar deposits was set at 10%, on household foreign liabilities at 40%, on external borrowing (irrespective of maturity) at 45%, on leasing companies' foreign currency assets at 100% and on foreign exchange subordinated obligations at 20%. The 60% reserve requirement ratio on short-term external borrowing has been cancelled. The calculation of foreign currency required reserves is effected in euro (by exception also in U.S. dollars). |
| November 10, 2007 | Minimum reserve ratio on dinar deposits with a maturity of over one month cut from 10% to 5%. At the same time, the foreign currency base excludes the household term savings deposited from October 31 through November 7, 2007 for the duration of their term. |
| May 15, 2008 | 10% of the required reserves calculated in euro has to be allocated in dinar. |

Source: NBS, authors' compilation.

Table 5

Liability Structure of the Banking Sector

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 ⁵ |
|--|--------------|--------------|--------------|--------------|--------------|--------------|-------------------|
| % of total liabilities | | | | | | | |
| Liabilities to NBS | 1.5 | 0.9 | 0.3 | 0.1 | 0.0 | 0.1 | 0.0 |
| Deposits of domestic nonbanks | 46.8 | 46.5 | 45.0 | 44.5 | 44.9 | 49.8 | 49.7 |
| of which: deposits of general government | 7.2 | 3.8 | 2.3 | 2.2 | 2.4 | 1.9 | 2.3 |
| deposits of households | 17.8 | 19.8 | 21.3 | 23.8 | 23.5 | 25.8 | 27.0 |
| deposits of enterprises ¹ | 21.8 | 22.8 | 21.4 | 18.5 | 19.0 | 22.2 | 20.4 |
| Foreign liabilities | 4.8 | 5.2 | 13.5 | 20.9 | 24.2 | 17.9 | 14.2 |
| Other liabilities ² | 25.8 | 25.3 | 23.4 | 19.2 | 12.5 | 11.4 | 12.6 |
| Capital and reserves | 21.2 | 22.2 | 17.8 | 15.3 | 18.4 | 20.8 | 23.5 |
| Total liabilities | 100.1 | 100.1 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Memorandum items: | | | | | | | |
| Total deposits (% of GDP) | 16.5 | 17.9 | 19.3 | 23.3 | 28.0 | 35.0 | n.a. |
| Deposit growth (nominal, annual change, %) | 60.6 | 25.1 | 31.8 | 46.9 | 40.6 | 46.3 | 37.5 |
| Deposit growth (real, annual change, %) ³ | 39.9 | 16.0 | 15.9 | 24.8 | 31.9 | 32.9 | 22.7 |
| Dinar deposits (% of total deposits) ⁴ | 46.2 | 40.7 | 35.2 | 33.3 | 37.2 | 38.2 | 33.7 |
| Foreign currency deposits (% of total deposits) | 53.8 | 59.3 | 64.8 | 66.7 | 62.8 | 61.8 | 66.3 |
| Short-term deposits (% of total deposits) | 98.6 | 97.4 | 94.6 | 92.0 | 90.8 | 92.4 | 92.1 |
| Long-term deposits (% of total deposits) | 1.4 | 2.6 | 5.4 | 8.0 | 9.2 | 7.6 | 7.9 |
| Domestic nonbanks' claim-to-deposit ratio | 109.8 | 114.7 | 128.8 | 131.1 | 107.2 | 99.9 | 108.7 |
| General government's claim-to-deposit ratio | 50.7 | 80.9 | 159.3 | 129.2 | 77.9 | 49.2 | 39.8 |
| Households' and enterprises' claim-to-deposit ratio | 120.5 | 117.7 | 127.1 | 131.2 | 108.8 | 101.9 | 112.0 |

Source: NBS, OeNB.

¹ Including deposits of other financial organizations.

² Including frozen foreign currency savings deposits, restricted deposits, provisioning for loan losses and other liabilities (presumably also interbank liabilities).

³ RPI deflated.

⁴ Including foreign currency-indexed deposits.

⁵ June 30, 2008.

Signaling strength and confidence in the sector, particularly in the expanding presence of foreign-owned banks, deposits surpassed loans (in absolute terms) by year-end 2007 after having grown more dynamically than the latter for years. Thus, total deposits relative to GDP have more than doubled since 2002, reaching

35% at end-2007 (see table 5). Increased depositor confidence is also underscored by the decreasing share of short-term deposits in total deposits, even though short-term arrangements still dominate with a share of over 90%. In this respect, rising confidence is, however, also reflected by the fact that the share of sight deposits steadily declined in favor of term and savings deposits. As of 2006, the latter have outweighed the former. Confidence aspects notwithstanding, foreign exchange deposits have remained predominant, given lingering memories of hyperinflation, negative real interest rates on dinar deposits and the still great importance of workers' remittances (mostly denominated in euro) as a source of deposits.¹³ During Serbia's period of managed floating until early 2006, when the dinar nominally depreciated, the share of foreign exchange deposits in total deposits gradually rose to about 67%. The discontinuation of dinar depreciation under the new informal inflation targeting regime in 2006 and 2007 led to a slight erosion of this share to below 62%, with exchange rate valuation effects seemingly being negligible in having caused this decline. However, against the background of re-emerging political uncertainties, the share of foreign currency deposits increased to over 66% of total deposits during the first half of 2008.

Box 3

Overview of Selected Prudential and Administrative Measures of the NBS since 2004

| | | |
|--|--------------------|---|
| Administrative/prudential measures | June 10, 2004 | Introduction of a compulsory downpayment of minimum 20% of the loan amount and a limit on monthly repayment installments amounting to a maximum of 30% of net household income. |
| | September 30, 2006 | Limiting the volume of lending to households to 200% of the share capital of commercial banks as of September 30, 2006. Changed a few weeks later to "200% of the share capital of commercial banks at the end of each month." |
| | August 27, 2007 | Repayment period for general purpose cash credits to households limited to two years. |
| | December 31, 2007 | Limit on gross lending to households lowered from 200% to 150% (including mortgage loans). |
| | April 14, 2008 | Mandatory 20% cash deposit for household loans canceled for loans in dinar and with no foreign currency clause, mandatory 20% deposit on foreign currency loans – included indexed foreign currency loans – raised to 30%, no changes for mortgage loans and credit card use. |
| | June 30, 2008 | Household dinar loans with no foreign currency clause intended for investment in agricultural production and dinar loans with no foreign currency clause approved to entrepreneurs for investment in the production of goods or services within their line of business are excluded from gross household lending. |
| Loan classification/provisioning/capital adequacy | November 10, 2004 | Banks are obliged to classify all claims arising from loans extended to a natural person in category E, subject to 100% provisioning, in cases where the total monthly installment exceeds 30% of the borrower's monthly income, and the downpayment placed by the borrower is less than 20% of the new loan. |
| | June 10, 2005 | In cases where the documentation submitted by a natural person applying for a loan does not include a Credit Bureau report on the natural person's liabilities, claims under such loan are classified in category E subject to 100% provisioning. |
| | July 1, 2006 | Amendment of the above decision. In addition to obligations in respect of existing loans, monthly repayment obligations will also include obligations under revolving credit cards, activated warranties on loans and obligations arising from financial lease contracts. |
| | October 1, 2006 | A new, more stringent Decision on the Classification of Bank Balance Sheet Assets and Off-Balance Sheet Items enters into force. 1% to 2% for category A, 5% to 15% for B, 20% to 35% for C, 40% to 75% for D and 100% for E. |

¹³ See Petrovic (2007, p. 29).

| | | |
|--|--------------------|---|
| | October 1, 2006 | When calculating risk-weighted assets, banks are obliged to apply a new 125% weight to claims in foreign currency or claims in dinar with foreign exchange indexation clause or other form of indexation clause amounting to no less than RSD 10 million that have not been protected by the borrower against changes in the exchange rate of the dinar vis-à-vis other currencies or against change in any other form of indexation. |
| | July 1, 2008 | Amendments to regulations on risk weights applied in calculating risk-weighted assets and off balance sheet items. Abolishment of the RSD 10 million limit with regard to 125% weight and inclusion of all receivables; 50% risk weight for receivables in dinar and mortgage; 75% for receivables in foreign exchange and mortgage and unhedged borrowing; 125% for receivables in foreign exchange and unhedged borrowing. Moreover, provisioning requirements related to off balance sheet items were brought more in line with international accounting standards, while other regulations aim for standardizing risk and liquidity risk management practices across banks. |
| Liquidity ratios | June 1, 2004 | Minimum foreign currency liquidity against foreign currency savings reduced from 50% to 47%. |
| | August 10, 2005 | Minimum foreign currency liquidity against foreign currency savings reduced from 47% to 45%. |
| | September 10, 2005 | Minimum foreign currency liquidity against foreign currency savings reduced from 45% to 43%. |
| | October 10, 2005 | Minimum foreign currency liquidity against foreign currency savings reduced from 43% to 42%. |
| | November 10, 2005 | Minimum foreign currency liquidity against foreign currency savings reduced from 42% to 41%. |
| Open foreign exchange positions | July 1, 2008 | Lowering of the limit on the open foreign exchange position from 30% to 20%. |

Source: NBS, authors' compilation.

The initially poor condition of the banking system and the subsequent restructuring process entailed huge losses in the sector during the early 2000s.¹⁴ However, buoyed by the cleanup of banks' balance sheets, rationalization of operational costs promoted by foreign ownership, the deposit and credit boom and a diversification of bank activities, the sector shook off its losses, became profitable in 2005, and increased profits in 2006 (see table 6). Whereas private banks had already achieved the breakeven point in 2002, state-owned banks only reached it in 2005. Return on average assets at around 1.7% remained fairly high for two years in a row. After having peaked at 9.7% in 2006, the (pretax) return on average equity declined to 8.6% at year-end 2007, mainly on the back of large capital increases of foreign bank subsidiaries. Despite these positive developments, Serbian credit institutions' profitability is still among the lowest in CESEE: As of 2007, the return on average equity (already after tax) amounted to 22% in Poland, 25% in the Czech Republic, 18% in Hungary and 24% in Bulgaria.

Net noninterest income represents close to 60% of banks' total income, which is high but decreasing against the background of the credit boom of recent years and the related increase in interest-bearing assets in banks' portfolios. Thus, less surprisingly, the share of net interest income in total income increased from 24% in 2004 to over 40% at end-2007, even though in recent years the claims-to-deposits ratio has fallen strongly in the wake of NBS measures to curb lending growth and even though interest rate spreads have declined considerably as a result

¹⁴ See Barisitz (2003, p. 205).

Table 6

Profitability of the Banking Sector

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 ¹ |
|--|--------|------|------|------|------|------|-------------------|
| Net interest income (% of total income) | 66.5 | 38.0 | 23.7 | 28.3 | 32.7 | 40.7 | 41.6 |
| Net noninterest income (% of total income) | 33.5 | 62.0 | 76.3 | 71.7 | 67.3 | 59.3 | 58.4 |
| Operating expenses (% of total income) | 75.4 | 57.5 | 53.3 | 38.5 | 43.5 | 46.7 | 37.9 |
| Loan loss provision expenses (% of total income) | 22.9 | 49.7 | 55.7 | 60.0 | 42.0 | 39.3 | 41.6 |
| Pretax profit/loss (% of total income) | -129.6 | -2.2 | -5.0 | 5.9 | 11.2 | 15.1 | 19.8 |
| Net interest income (% of average assets) | 4.6 | 5.4 | 5.4 | 5.4 | 5.0 | 4.6 | 5.5 |
| Net noninterest income (% of average assets) | 2.3 | 8.9 | 17.5 | 13.6 | 10.2 | 6.8 | 7.7 |
| Deposit rate (weighted average, %) | 2.6 | 2.7 | 3.6 | 3.7 | 5.1 | 4.1 | 6.1 |
| Lending rate (weighted average, %) | 19.2 | 14.8 | 14.6 | 14.4 | 15.9 | 11.1 | 16.9 |
| Interest rate spread (lending to deposit rate) | 16.6 | 12.1 | 11.0 | 10.7 | 10.8 | 7.0 | 10.8 |
| Return on average assets (ROAA, pretax, %) | -9.0 | -0.3 | -1.1 | 1.1 | 1.7 | 1.7 | 2.6 |
| Return on average equity (ROAE, pretax, %) | -49.9 | -1.4 | -5.4 | 6.5 | 9.7 | 8.6 | 11.5 |

Source: NBS, OeNB.

¹ June 30, 2008.

of a more favorable inflationary environment (until 2007), greater operational efficiency and more robust competition. After having declined for several years, the cost-to-income ratio has picked up significantly since 2005, mainly due to banks' rapid network expansion and to considerably increasing bank headcounts. In the first half of 2008, the claims-to-deposit ratio and the interest rate spread have, however, trended upward again, thereby contributing to a further rise of the share of net interest income in total income.

6 Synopsis of the Banking Sector's Strengths and Vulnerabilities

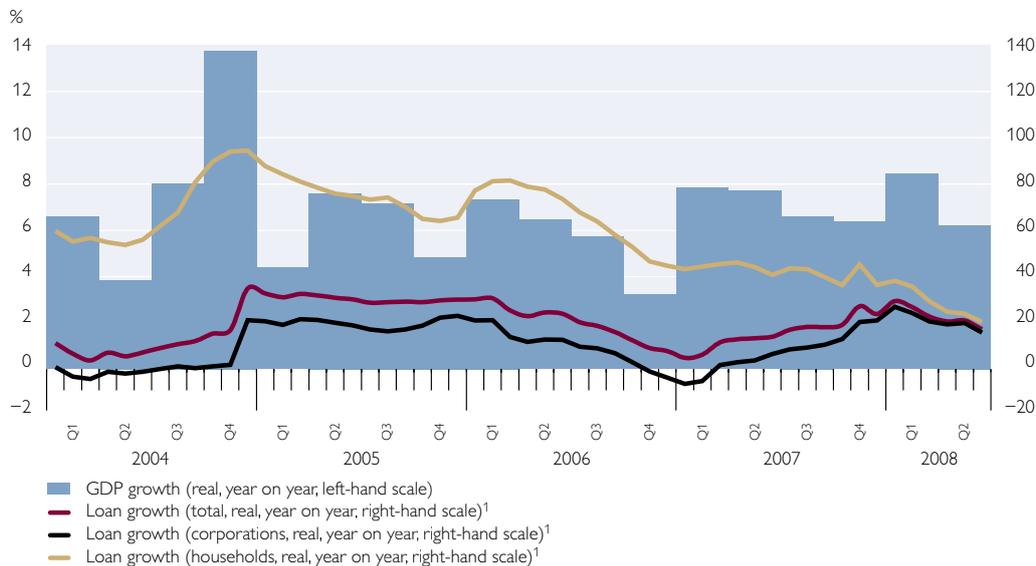
6.1 Credit Risk

Fast credit expansion in recent years was driven by high (catching-up) demand, the low base, the lack of alternatives given underdeveloped capital markets, and by foreign banks' quest to gain market shares in the context of substantial interest rate margins. GDP growth and credit expansion were positively correlated in recent years (see chart 1). Despite various lending restrictions implemented by the NBS (see boxes 2 and 3), lending to households expanded at an impressive 70% on average per annum from 2002, although starting from a very modest point of departure. Its share in total domestic credit grew from 10% in 2002 to 37% in 2007 and remained at similarly high levels also in the first half of 2008. A small, but particularly dynamic element within retail credit is mortgage lending, which grew tenfold from 2004 to attain 12% of total lending and about 30% of total loans to households (see table 7) at end-2007. This strong momentum of mortgage lending, which continued also in the first half of 2008, is not only attributable to high demand for housing, but also to the fact that mortgage loans (which are insured by the National Mortgage Insurance Company) are exempt from mandatory reserve requirements.¹⁵ Mortgage loans are predominantly indexed to foreign currencies, i.e. mainly to the euro and the Swiss franc, with the share of the latter in total housing loans having risen to 40% at end-2007.

¹⁵ IMF (2008, p. 23).

Chart 2

GDP and Credit Growth, 2004–2008



Source: NBS, OeNB calculations.

¹ RPI deflated.

In order to avoid currency mismatches and possibly also to take advantage of higher margins, Serbian banks have been inclined to undertake, if not promote, foreign currency-denominated lending. However, given that the Foreign Exchange Act of 2002 designates the dinar as the sole currency for domestic transactions, banks have often resorted to foreign exchange indexing of dinar loans (mostly to the euro, to a lesser but rising degree to the Swiss franc).¹⁶ During the period of dinar depreciation up to 2005, the development of the share of foreign exchange-denominated and -indexed loans was similar to that of the deposit structure, with the share increasing to almost 90% of total loans. This was followed by a decline to 76% in June 2007.

While foreign exchange-denominated and -indexed lending helps to eliminate currency mismatches for banks, the foreign exchange risk involved is borne by borrowers, many of whom may be unhedged (although one should not overlook the traditional flows of foreign currency remittances as well as the possibly considerable but difficult to quantify amounts of mattress money with parts of the population). Unhedged borrowers imply indirect exchange rate risk and therefore credit risk for banks. The evolution of the exchange rate regime in 2003 had already put unhedged borrowers under pressure. According to the most recent IMF (2008) sensitivity analysis (accounting only for the banking sector's exposure to households), a depreciation of the dinar by 25% would result in a drop of the capital-to-asset ratio of the banking sector from 19% to 14.5%, but capital adequacy would not fall below the regulatory minimum of 12%. NBS stress tests come to a similar conclusion.¹⁷ At any rate, Serbia's share of foreign exchange-

¹⁶ This resembles the Croatian practice (see Gardó 2005, p. 60).

¹⁷ For more details, see NBS Financial Stability Report 2007.

denominated and -indexed loans in total loans is among the highest in transition countries.¹⁸

Many loans – particularly retail loans – are also subject to variable interest rates, set with reference to a benchmark interest rate (mostly EURIBOR or LIBOR), implying also a foreign interest rate risk. Consequently, the transfer of foreign exchange as well as interest rate risk to clients (often households) tends to push up banks' credit risks.

Despite the credit boom, the share of bad assets (receivables classified by the NBS in categories C, D and E) in total assets under classification¹⁹ at over 30% was fairly high (see table 7), although the substantial spike in 2006 (to 33%) can be partly explained by the introduction of tighter loan loss classification rules and stepped-up enforcement of prudential provisions.²⁰ But even if adjusted for methodological changes, asset quality has trended to worsen most recently. In this respect, a regular survey of the nine largest banks (mostly foreign-owned) conducted by the NBS arrives at a similar result, according to which the share of nonperforming loans in loans to enterprises grew from 5.6% in 2006 to 5.9% in 2007, while at the same time the ratio of nonperforming household loans climbed from 1.8% to 2.1%.

Given that Serbia's economy still displays a variety of structural weaknesses, the economic risks triggered by the acceleration of credit growth in 2004 (notwithstanding the initially modest credit volume) were sufficient to raise serious concerns on the part of the authorities. Apart from financial risks (growing indirect foreign exchange exposure of banks), macroeconomic risks (particularly with respect to high inflation and current account-to-GDP ratios, see also section 2) persuaded the NBS to introduce credit containment measures. Some measures were launched in mid-2004, various others followed, and the policy has continued to date (see box 3).

The measures seem to have gone in two basic directions: reining in or provisioning for foreign exchange-denominated or -indexed lending, and containing or limiting retail lending. Most frequently, reserve requirements have been raised or strengthened. General prudential tightening has taken place (with respect to risk management systems, classification rules, capital adequacy calculation – also particularly focusing on unhedged borrowers). Most recently, the central bank has repeatedly resorted to administrative interventions (e.g. introducing “rule 200%” in October 2006 and “rule 150%” in December 2007; see also box 3) to curtail retail lending. Credit institutions and borrowers have often reacted by trying to circumvent these measures, e.g. by borrowing abroad (from headquarters of foreign-owned banks or foreign-owned nonbank corporations) or by resorting to leasing transactions.²¹ The NBS responded by strengthening and extending

¹⁸ The same also goes for Serbian households' euro cash holdings as well as euro savings deposits, as documented in the OeNB Euro Survey 2007 and analyzed in Dvorsky, Scheiber and Stix (2008, p. 52–54).

¹⁹ Total assets under classification comprise both on and off balance sheet items, but exclude some specific balance sheet items (e.g. vault cash, securities refinaceable with the NBS, fixed assets, own shares). For further details, see NBS Decision on the Classification of Bank Balance Sheet Assets and Off-Balance Sheet Items as published in the RS Official Gazette Nos.129/2007 and 63/2008.

²⁰ Hayward and Westphal (2006, p. 26).

²¹ These activities are referred to in greater detail immediately below.

its measures, e.g. by restricting external borrowing by banks and acquiring jurisdiction and supervisory control over activities of leasing companies (see box 1).

The NBS's credit containment policies (notably the strong increase in foreign exchange-denominated required reserves in 2005 and 2006) have proved to be modestly successful in slowing down loan growth. Moreover, the NBS does not appear to have succeeded in reining in external borrowing, as witnessed by the still substantial share of foreign liabilities in total liabilities, even if this share declined in 2007.

Lending to the private sector has also partly migrated abroad: According to balance of payments statistics, the direct foreign debt (comprising inter alia bank loans, intercompany loans, trade credits) of "other sectors" (i.e. households and nonbank corporations) rose from 10% of GDP in 2002 to almost 26% of GDP in 2007. These funds have mostly gone to enterprises. In this way, a portion of the high-quality portfolio from balance sheets of Serbian banks may have been transferred abroad. According to the IMF (2008), not only the maturity structure of the corporate sector's outstanding foreign debt has deteriorated in recent years (shift toward short- and medium-term loans), inducing higher rollover risks, but also the corporate sector's exposure to foreign exchange risks has increased (especially when taking into account the country's small and volatile export base). Therefore, the effectiveness of the containment measures has turned out to be quite limited, which is in line with the mixed results delivered by similar policies in other countries of the region.

Against the background of relatively strong deposit growth, with deposits in absolute terms even surpassing the level of loans, one might ask why additional external sources were deemed necessary to finance the credit boom. One of the reasons was certainly the above-mentioned strong adjustment of the foreign exchange component of the NBS's mandatory reserves (see box 2), which withdrew a considerable amount of liquidity from potential lending activities. But the sharply increasing volume of repo transactions with the NBS might also be an indication of banks' potential engagement in carry trades (be it on their own account or on the account of foreign investors). Furthermore, by taking up loans abroad, banks have managed to compensate for the inadequate maturity structure in the sources of their funds. In 2006, total credits exceeded time deposits by 60%; therefore, long-term borrowing abroad alleviated maturity mismatches. However, banks' foreign borrowing has reinforced indirect foreign exchange risk (credit risk) with mostly unhedged debtors.

In a nutshell, the rapid expansion of loans requires careful monitoring. Operational risks have increased for banks, given the need to swiftly adopt new products, to substantially improve staff training, and to carry out logistical adjustment quickly. Moreover, risk assessments of individual loan applications may suffer due to the sheer speed of loan growth.²² Bad credits have been swelling, although part of the expansion may reflect better bookkeeping practices. The increase pertains particularly to household credits, though the overall level of retail lending is still

²² See *Narodna banka Srbije* (2007, p. 20) and *Schaechter* (2004, p. 21).

modest. The ongoing intense struggle for market shares, buoyed by FDI inflows into the sector, has raised concern over a possible further deterioration of asset quality and profitability, especially in the event of an economic downturn.²³ Surging mortgage lending might feed into asset price inflation (or even a bubble). The high degree of currency substitution in the banking market points to rather substantial foreign exchange rate and foreign interest rate risks. An adverse shock (e.g. sudden depreciation, sharp foreign interest rate hike) might create financial problems for some borrowers, thereby increasing credit risk, and might bring about a rapid slowdown of credit growth, possibly even triggering a credit crunch.²⁴ Yet safeguards have been erected against a number of these contingencies through prudential measures. Finally, the recent credit boom also contributed to growing macroeconomic imbalances. Given slow industrial restructuring and possible overheating tendencies, inflationary pressures have increased. Swift loan growth is also contributing to the swelling of the current account deficit.²⁵

6.2 Market and Liquidity Risks

The interest rate risk of banks appears to be manageable, as most loans (to both households and corporates) carry variable interest rates.²⁶ At the same time, on the liability side, the bulk of bank deposits, i.e. about 90%, are short term, allowing for some degree of flexibility in times of high interest rate volatility. Thus, most of the interest rate risk has been outsourced to bank clients, and will most likely resurface through the credit risk channel in the event of adverse developments.

Direct foreign exchange risks so far seem to be limited. At year-end 2007, the banking sector's total open foreign exchange position amounted to 14.8% of the sector's regulatory capital, which was on average well below the regulatory requirement of a maximum of 30% at that time and corresponded to around 2.5% of total assets. Around three-quarters of the total open foreign exchange position can be allotted to long positions, so that the ratio of the long foreign exchange position to regulatory capital stood at 11.2%, while the short position was at 3.6%. In this respect, the higher long position implies that banks are more exposed to foreign exchange risks related to an appreciation of the dinar. During the first half of 2008, the sector's total open foreign exchange position fell substantially to 9.4% of the sector's regulatory capital, on the back of both lower foreign exchange risk exposure and a strong increase in regulatory capital. Starting in July 2008, the NBS tightened the respective regulations by lowering the limits on open foreign exchange positions from 30% to 20% of banks' regulatory capital.

²³ IMF (2007, p. 7).

²⁴ IMF (2006) stress tests indicated that credit risk was the most significant risk for the system. Subsequent IMF (2008) stress tests show that assuming a liability euroization of 80%, a nominal depreciation of 10% would result in an increase of corporate sector's liabilities by about 8% and trigger a fall in equity by 4%.

²⁵ According to Goswami (2008, p. 23), the importance of credit expansion in explaining the rising current account deficit in Serbia is statistically significant.

²⁶ IMF (2008).

In light of the very low and gradually decreasing share of banks' equity holdings (enterprise shares) in total assets, the banking sectors' exposure to stock market risk is negligible. By the way, holdings in a single nonbank undertaking are limited by law to 25% of a bank's regulatory capital, and to 60% for the sum of all holdings in nonbank undertakings.

Liquidity risks have decreased considerably in recent years, with the ratio of liquid assets to total assets picking up markedly from 16.8% in 2004 to about 40% in 2006 and 2007. This can be mainly attributed to a substantial increase of securities refinancable with the NBS (claims against repo transactions) in banks' portfolios, most likely also driven by carry trades, after the NBS in September 2005 began to auction repo sales of NBS bills for sterilization purposes. The liquidity ratio has remained constantly over 2 since 2002, which is well above the prescribed regulatory level (see table 7), but the ratio of short-term claims to short-term deposits declined sharply from 62.6% in 2005 to 42.7% in 2007. Nonetheless, in light of the still high share of liabilities to nonresidents, risks associated with international financing have been growing in the context of global financial market turbulence since summer 2007. Even though parent banks constitute the main external financing source for foreign bank subsidiaries in Serbia, the still high share of foreign liabilities in total liabilities requires cautious monitoring.

6.3 Shock-Absorbing Factors

There are at least three factors which underpin the shock-absorbing capacities of the banking sector with respect to credit risk: First, bank profitability, although still among the lowest in the CESEE region, has improved considerably since 2002 and continued to do so also in the first half of 2008, when return on average assets reached 2.6% and return on average equity increased to 11.5%, equipping banks with a comfortable cushion to endure unexpected regional or sectoral shocks. In this respect, even if a deterioration of the business climate (with less demand for banking services) materialized, the still high interest rate margins and further restructuring and privatization of the banking sector could keep profitability at high levels in the years ahead. Second, standard capital ratios reveal a well capitalized banking sector. Capital remains more than sufficient to cover potential losses, at least as far as depicted in the books. Although capital adequacy weakened in the years 2003 to 2006, at 25% in 2006 it was still at a comfortable level (see table 7), far above the regulatory minimum of 12%. The year 2007 again saw an increase of the capital adequacy ratio by about 3 percentage points to 27.9% (marking the highest level in CESEE), mainly on the back of tighter regulatory requirements (e.g. quantitative restrictions on household lending), and even increased further to 28.1% at end-June 2008. Finally, prevalent foreign ownership underscores banking system stability by increasing banks' operational efficiency via capital, know-how and technology transfer and by alleviating sudden stop risks given foreign banks' long-term strategic interest in the Serbian market.

Table 7

Indicators of Banking Sector Stability

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 ⁷ |
|--|-------|------|-------|-------|-------|------|-------------------|
| Credit risk | | | | | | | |
| Credit growth (annual change, %) | -32.0 | 30.7 | 47.9 | 49.5 | 15.0 | 36.4 | 31.5 |
| Private sector credit ¹ (annual change, %) | -34.6 | 32.5 | 46.9 | 52.0 | 16.2 | 39.2 | 32.1 |
| Household credit (annual change, %) | 28.0 | 67.0 | 119.9 | 98.7 | 52.8 | 50.0 | 35.7 |
| Mortgage loans (annual change, %) | n.a. | n.a. | n.a. | 139.7 | 103.2 | 88.9 | 80.4 |
| Mortgage loans (% of household loans) | n.a. | n.a. | 15.1 | 18.7 | 24.2 | 29.6 | 33.7 |
| Receivables classified in categories C, D and E (% of total classified assets) | 24.3 | 22.5 | 23.3 | 23.2 | 33.0 | 30.4 | 33.5 |
| FX-denominated and FX-indexed credit (% of total credit) ² | 49.7 | 63.3 | 69.9 | 88.1 | 83.5 | 75.8 | n.a. |
| Market risk | | | | | | | |
| - Foreign exchange risk | | | | | | | |
| Open foreign exchange position (% of total assets ³) | n.a. | n.a. | 3.0 | 2.5 | 3.3 | 2.5 | 1.8 |
| Open foreign exchange position (% of regulatory capital) | 23.8 | 14.4 | 16.9 | 15.8 | 21.1 | 14.8 | 9.4 |
| - Stock market risk | | | | | | | |
| Equity holdings (% of total assets) ⁴ | 0.8 | 0.9 | 0.7 | 0.4 | 0.3 | 0.2 | 0.2 |
| Liquidity risk | | | | | | | |
| Liquidity ratio ⁵ | 2.92 | 2.45 | 2.19 | 2.06 | 2.41 | 2.06 | n.a. |
| Liquid assets ⁶ (% of total assets ³) | 26.4 | 19.5 | 16.8 | 28.8 | 41.4 | 38.1 | 35.7 |
| Shock absorbing capacities | | | | | | | |
| Loan loss provisions (% of nonperforming assets) | 65.0 | 62.8 | 67.7 | 56.3 | 38.5 | 28.8 | 24.5 |
| Capital adequacy ratio | 30.6 | 31.3 | 27.9 | 26.0 | 24.7 | 27.9 | 28.1 |
| Market share of foreign-owned banks (% of total assets) | 27.0 | 38.4 | 37.7 | 66.0 | 78.7 | 75.5 | 75.0 |

Source: NBS, OeNB.

¹ The private sector comprises households and enterprises (including public sector enterprises and other financial organizations).² Data series according to IMF calculations. Data for 2007: June 2007.³ Total assets according to banking supervision data.⁴ Only long-term enterprise shares.⁵ According to the NBS decision on Liquidity Risk Management, the bank liquidity ratio is the ratio of the sum of first- and second-degree liquid receivables of the bank and the sum of liabilities payable on demand with no agreed maturity and liabilities falling due within a month from the date of the liquidity ratio calculation. Banks are required to maintain the level of liquidity so that their liquidity ratio equals at least 1.0 if calculated as the average liquidity ratio for all business days in a month; not less than 0.9 for more than three days in a row and at least 0.8 if calculated for one business day only.⁶ Including cash and cash equivalents as well as deposits with the NBS and securities refinanciable with the NBS.⁷ June 30, 2008.

7 Payment System Developments

According to the Law on Payment Operations, the NBS is responsible for the efficient and sound functioning of the payment system. The law authorizes the NBS inter alia to carry out interbank clearing and settlement system operations, to develop the national payment system and to conduct payment systems oversight. The payment system operates on the real-time gross settlement principle, which is mainly used for large-value interbank payment transactions. The clearing system of the NBS is used for the clearing of small-value payments.²⁷ Serbia's EU membership perspective has raised the need for bringing in line the domestic payment system with EU standards. To this end, the NBS aims for approximating payment system regulations to the *acquis communautaire* and fostering cooperation with central banks in the region and with international institutions.

Strong demand for banking services and rapid network expansion went hand in hand with a formidable development of the Serbian payment card system. The number of both ATMs and POS terminals has increased thirtyfold since 2002,

²⁷ For more details, see BIS (2007, p. 3).

Table 8

Payment System Developments

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 ² |
|---|-------------|-------------|-------------|--------------|--------------|--------------|-------------------|
| Number of ATMs | 65 | 204 | 450 | 837 | 1,348 | 2,074 | 2,334 |
| Number of POS terminals | 1,709 | 6,779 | 16,266 | 31,816 | 48,194 | 55,340 | 57,246 |
| Number of debit cards (in thousands) ¹ | 195.7 | 632.2 | 2,129.7 | 3,476.6 | 4,382.8 | 4,686.4 | 4,621.2 |
| Number of credit cards (in thousands) | 4.2 | 10.9 | 28.2 | 382.2 | 857.6 | 1,039.0 | 1,060.3 |
| <i>Memorandum items:</i> | | | | | | | |
| <i>No. of ATMs (per million inhabitants)</i> | <i>8.7</i> | <i>27.3</i> | <i>60.3</i> | <i>112.5</i> | <i>181.9</i> | <i>281.6</i> | <i>316.9</i> |
| <i>No. of debit cards per inhabitant</i> | <i>0.03</i> | <i>0.08</i> | <i>0.29</i> | <i>0.47</i> | <i>0.59</i> | <i>0.64</i> | <i>0.63</i> |
| <i>No. of credit cards per inhabitant</i> | <i>0.00</i> | <i>0.00</i> | <i>0.00</i> | <i>0.05</i> | <i>0.12</i> | <i>0.14</i> | <i>0.14</i> |

Source: NBS, OeNB.

¹ Including business cards.

² June 30, 2008.

climbing to over 2,300 and 57,000, respectively, in June 2008. Similarly, against the background of the recent boom in retail banking, the number of debit and credit cards grew strongly from a mere 200,000 in 2002 to about 5.7 million in June 2008. Notwithstanding these impressive developments, relative figures still indicate substantial catching-up potential. The number of ATMs per one million inhabitants was at about 320 in June 2008. The comparable figures for Germany, France and Switzerland are about 700, while they stand at more than 1,000 for the United States and Japan. The same holds true for the number of cards per inhabitant, which at 0.64 and 0.14 for debit and credit cards, respectively, was still fairly low in Serbia in an international comparison. The respective figures for advanced economies within the EU were at about 1 to 1.5 and 0.5, respectively.

8 Nonbank Financial Institutions

8.1 Nonbank Financial Intermediaries

The Serbian financial sector is dominated by banks, which – accounting for about 90% of total financial sector assets – still represent the most important financial intermediation channel in the country. Although starting from a very low base, in recent years nonbank financial intermediation experienced fast growth, expanding at least in tandem with the banking sector. These developments are underpinned on the demand side by the rising income levels of the population and by improving corporate finances as a result of the strong momentum of the economy and ongoing corporate restructuring as well as privatization, and on the supply side by the increasing interest of foreign investors in the Serbian financial market driven by higher profit margins and the country's EU membership perspective, and by the NBS's restrictive approach to monetary and regulatory policy in recent years.

Within Serbia's nonbank financial sectors, financial leasing claims the largest share. This is not only reflected by the constantly increasing number of leasing companies and considerably rising staff levels, but also by the strong increase of leasing assets relative to GDP (see table 9). The insurance sector underwent large-scale restructuring in 2004 and 2005 after the NBS had assumed responsibility for regulating and supervising insurance companies in August 2004. Regulations were tightened and about 15 insurance companies were shut down.

Table 9

Financial Sector¹ Structure

| | 2004 | 2005 | 2006 | 2007 |
|--|--------------|--------------|--------------|--------------|
| <i>% of total financial sector assets</i> | | | | |
| Banking sector | 90.4 | 88.8 | 90.5 | 90.4 |
| Insurance sector | 5.5 | 5.3 | 4.3 | 4.1 |
| Financial leasing sector | 4.1 | 5.9 | 5.2 | 5.5 |
| Voluntary pension funds (VPF) | 0.0 | 0.0 | 0.02 | 0.17 |
| Total | 100.0 | 100.0 | 100.0 | 100.2 |
| <i>Memorandum items:</i> | | | | |
| Number of insurance companies | 40 | 19 | 17 | 20 |
| Number of employees in the insurance sector | 5,926 | 7,283 | 7,876 | 9,697 |
| Insurance premiums (% of GDP) | 1.6 | 2.0 | 1.9 | 1.9 |
| Life insurance premiums (% of total insurance premium) | 7.5 | 9.5 | 10.6 | 11.0 |
| Number of leasing companies | 12 | 14 | 15 | 17 |
| Number of employees in financial leasing | 132 | 329 | 388 | 478 |
| Total financial leasing assets (% of GDP) | 1.6 | 3.0 | 3.3 | 4.0 |
| VPF management companies | 0 | 0 | 1 | 7 |
| Number of employees in VPF management companies | 0 | 0 | 73 | 196 |
| EBRD index of reform of nonbank financial institutions | 2.0 | 2.0 | 2.0 | 2.0 |

Source: NBS, OeNB.

¹ Including only financial sector segments under the supervision of the NBS.

Following this major reshuffle, the insurance sector grew at a somewhat slower pace than other financial market segments and has constantly lost market share to banks and leasing companies since 2004. The written premiums have hovered around 2% of GDP (EU-27: 9%) for several years now, with growth rates in the life segment by far outperforming the nonlife segment, however. The Law on Voluntary Pension Funds and Pension Schemes entered into force only in April 2006, thereby laying the legal foundations for the incorporation of voluntary pension fund management companies in Serbia. The number of management companies has increased rapidly since then, but not surprisingly, voluntary pension funds are still in their infancy with a market share of 0.2% in total financial sector assets.

8.2 Stock and Bond Market Developments

In line with other financial market segments, as mirrored by the Belex-15 index,²⁸ the Serbian stock market developed buoyantly in recent years, growing by an average 50% per annum in 2006 and 2007. Developments were, however, accompanied by high volatility, given mounting political uncertainties related to early elections in May 2008 and Kosovo's declaration of independence, as well as increasingly differentiated risk assessment of international investors toward emerging markets in the context of the recent global financial market turmoil. Thus, in the first half of 2008, the Belex-15 index lost about 25% of its value, falling below 1,800 points.

The number of listed companies in the unregulated market has quadrupled since 2004 after a regulation required companies with more than 100 shareholders to list on the stock exchange by March 2007. In 2007, the Belgrade Stock

²⁸ The Belex-15 is the leading index of the Belgrade stock exchange.

Exchange (BSE) also introduced a regulated prime market with an A and B listing and stricter listing requirements, but up to now only three companies qualified for the A segment, while no applications have been submitted for entering the B segment. Total equity market capitalization has increased sevenfold in absolute terms since 2004 (due to both price and quantity effects), reaching EUR 16.3 billion – about 55% of GDP – at end-year 2007.

Despite this strong market capitalization growth, the stock market still exhibits relatively low trading volumes and liquidity levels. This is true even more for the bonds listed on the Serbian stock exchange (bonds of the Republic of Serbia), with total bond turnover reaching slightly over EUR 200 million – merely 0.7% of GDP – at year-end 2007. On this note, the abundant availability of alternative financing sources (e.g. bank finance, direct external financing by corporates, FDI) might to some extent have restrained the attractiveness of the capital market so far, but a stabilization of the political environment, progress made in EU approximation and planned initial public offerings (e.g. Telekom Srbija, Komercijalna banka),²⁹ however, promise a dynamic development in the years ahead.

Table 10

Stock and Bond Market Indicators

| | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|--|-------|-------|-------|-------|-------|--------|
| BELEX-15 stock market index ¹ | n.a. | n.a. | n.a. | 1,060 | 1,675 | 2,318 |
| Number of listed shares | n.a. | n.a. | 431 | 900 | 1,204 | 1,710 |
| Market capitalization (EUR million) ² | n.a. | n.a. | 2,410 | 4,550 | 8,340 | 16,313 |
| Market capitalization (% of GDP) ² | n.a. | n.a. | 12.2 | 21.6 | 34.4 | 54.5 |
| Total equity turnover (EUR million) | 114 | 446 | 323 | 338 | 1,105 | 1,873 |
| Total equity turnover (% of GDP) | 0.7 | 2.5 | 1.6 | 1.6 | 4.6 | 6.3 |
| Total bond turnover (EUR million) ³ | 362.0 | 484.9 | 161.7 | 87.0 | 168.2 | 210.0 |
| Total bond turnover (% of GDP) ³ | 2.2 | 2.7 | 0.8 | 0.4 | 0.7 | 0.7 |

Source: Belgrade Stock Exchange, Federation of Euro-Asian Stock Exchanges, OeNB.

¹ Launched in October 2005.

² Equities.

³ 2002 to 2004 including corporate bonds and bonds of the Republic of Serbia (RS). 2005 to 2007 only bonds of the RS.

9 Assessment and Conclusions

In recent years, Serbia's banking system has successfully continued along the catching-up trajectory it had embarked upon immediately after regime change in the early 2000s. Serbian banks have been closing ranks with those of other transition countries in terms of the depth of intermediation, soundness of services and ownership of capital (see table 11). The restoration of public confidence in the sector is exemplified by the high level and dynamic expansion of deposits (whose absolute amount and growth rate exceed those of credits). The quality of the NBS's banking regulation and supervision has greatly improved in recent years, and has enhanced the health of the sector. This is exemplified by rigorous risk classification rules, tightened provisioning obligations (for – albeit relatively high – nonperforming loans), robust reserve and capital requirements, all of which address risks and bolster Serbian credit institutions' financial soundness.³⁰

²⁹ Privatization of Komercijalna banka is earmarked for 2009. See Petrovic (2006, p. 28–29).

³⁰ See IMF (2007).

Table 11

Banking Indicators in CESEE (2007)

| | CZ | HU | PO | SK | SI | BU | RO | AL | BA | HR | MK | ME | RS |
|--|-------|-------|------|-------|-------|-------|-------|-------|------|-------|-------|-------|-------------|
| Total assets (% of GDP) | 104.3 | 112.3 | 72.6 | 94.4 | 129.7 | 108.1 | 64.3 | 74.2 | 93.2 | 122.3 | 74.6 | 117.1 | 70.1 |
| Total loans (% of GDP) | 47.0 | 61.0 | 40.6 | 42.8 | 79.6 | 65.9 | 37.5 | 56.0 | 57.1 | 80.2 | 40.2 | 88.4 | 34.9 |
| Total deposits (% of GDP) | 64.3 | 46.6 | 43.0 | 55.6 | 56.5 | 65.1 | 33.7 | 62.0 | 57.9 | 84.7 | 45.4 | 82.3 | 35.0 |
| Market share of foreign-owned banks (% of total assets) ¹ | 97.6 | 68.0 | 67.0 | 96.0 | 28.8 | 75.0 | 87.8 | 94.2 | 91.0 | 90.4 | 85.9 | 75.3 | 75.5 |
| Market share of the five largest banks (% of total assets) | 65.7 | 54.1 | 46.6 | 68.2 | 59.7 | 56.7 | 56.3 | 74.1 | 56.7 | 71.5 | 74.4 | 83.6 | 44.6 |
| Herfindahl-Hirschmann Index ² | 1,114 | 839 | 640 | 1,082 | 1,299 | 833 | 1,040 | 1,600 | 926 | 1,279 | 1,625 | 1,918 | 578 |
| EBRD Index of banking sector reform | 4.0 | 4.0 | 3.7 | 3.7 | 3.3 | 3.7 | 3.3 | 2.7 | 2.7 | 4.0 | 2.7 | 2.7 | 2.7 |
| Return on assets (after tax, %) ³ | 1.3 | 1.5 | 1.7 | 1.1 | 1.4 | 2.4 | 1.0 | 1.6 | 0.9 | 1.3 | 1.8 | 0.7 | 1.7 |
| Return on equity (after tax, %) ³ | 24.5 | 17.5 | 22.1 | 16.6 | 16.3 | 23.8 | 9.4 | 20.7 | 8.9 | 11.1 | 15.2 | 6.2 | 8.6 |
| Capital adequacy ratio (%) | 11.5 | 11.6 | 12.4 | 12.4 | 11.2 | 13.8 | 13.8 | 17.1 | 16.4 | 15.4 | 17.0 | 17.1 | 27.9 |

Source: national central banks, authors' calculations.

¹ Montenegro: % of total capital.

² Bosnia and Herzegovina: 2006.

³ Slovenia and Serbia: pretax.

Notwithstanding these generally positive trends, the banking sector's risk exposure has increased against the background of the credit boom of recent years. Rapid credit expansion, the rising debt levels of households and nonbank corporations, the passing on of market risks to bank customers and the high level of nonperforming loans warrant careful monitoring of banks' credit risk. Notwithstanding the NBS's restrictive measures, especially the retail segment continued to grow briskly in recent years, while in the case of corporations, some cross-border migration of intermediation has taken place (entailing additional foreign exchange risks and possibly also adverse selection problems). The credit boom has also contributed to high and widening macroeconomic imbalances (especially current account and inflationary pressures) and to rapidly growing foreign indebtedness of the private sector, making Serbia one of the rather vulnerable CESEE economies. Moreover, the still high degree of currency substitution in the banking sector (even in a regional comparison) highlights considerable foreign exchange risks, mainly with respect to unhedged borrowers. Strong credit growth may also have contributed to heightened operational risks of banks as far as risk management capacities are concerned, while – in light of the recent global financial market turmoil – the high net external liability position of banks may represent a source of risk associated with international financing. Furthermore, achievements so far in terms of financial sector development and stability may come under pressure if price stability is not restored sufficiently quickly. Overall, it is also important to stress the system's fairly high shock-absorbing capacities, however. The banking sector appears to be adequately capitalized, with increasing profitability levels, and widespread foreign ownership is bolstering the sector's shock resistance.

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Highlights

62nd East Jour Fixe

Soaring Prices in Emerging Europe:

Temporary Phenomenon or Lasting Challenge?

1 Introduction

Worldwide inflation soared substantially from mid-2007 to mid-2008, mostly induced by rising world market prices for energy and food. The countries in Central, Eastern, and Southeastern Europe (CESEE) were hit especially hard by these unfavorable developments, given the relatively high share of energy and food in their consumer goods baskets. Against this background, the OeNB invited renowned representatives from academia, international institutions, and CESEE central banks to attend the 62nd East Jour Fixe, which took place on June 18, 2008, in Vienna. The event focused on fostering a better understanding of this price surge, learning from cross-country differences, and discussing the possibilities and limits of policy measures in fighting inflation in the region.

The workshop was opened by *Peter Mooslechner* (Director Economic Analysis and Research, OeNB), who emphasized that inflation constitutes one of the main challenges of current economic policy in CESEE (in the meantime, the aggravating global financial crisis has overshadowed this issue, but it is still highly topical). Mooslechner pointed out that inflation levels and dynamics vary quite strongly across Europe, which raises the question why a global price shock of this dimension has led to such remarkable differences in inflationary consequences across countries. In October 2008, for instance, year-on-year inflation rates ranged from 4.0% (Poland) to 13.7% (Latvia) in the Eastern European EU Member States; three other countries posted double-digit rates (Bulgaria, Estonia, and Lithuania). Except for Hungary and Slovenia, inflation was clearly higher than one year earlier in these countries, with increases ranging from 0.5 to 3.1 percentage points.^{2,3} The OeNB's East Jour Fixe was staged at quite the right time when the phenomenon became increasingly severe, which allowed participants to analyze this inflation diversity and to compare the different economic policy strategies. The invited speakers presented first-hand information on cross-country as well as country-specific particularities that revealed a number of important insights.

In the background session, general trends and main inflation drivers – especially food prices – were addressed from a cross-country angle. *Christoph Rosenberg* (IMF) maintained that the Baltic countries and Southeastern Europe were affected the most by food and energy inflation, and pointed to necessary structural reforms to increase the respective supply across the CESEE region and beyond (e.g. arable land reforms alongside farming infrastructure improvements). *Zdenek Lukas* (The Vienna Institute for International Economic Studies – wiiw) stressed that the

¹ Summary compiled by Markus Eller with input from Claudia Zauchinger.

² For a more detailed comparison of recent inflation developments across CESEE and a discussion of monetary policy decisions and inflation expectations, see *Developments in Selected Countries*, pp. 8–49.

³ At the same time, however, we have to keep in mind that soaring prices are not restricted to emerging Europe alone. They have become an almost worldwide challenge. For example, Austria's inflation rate reached 4% in June 2008 – the highest rate in this country over the last 15 years – and was still considerably elevated at 3.0% in October 2008. Within the euro area, inflation rates range from 2.5% to 5.8%, and the increase compared with one year earlier ranges from 0.3 to 4.2 percentage points.

rise in processed food prices was highest from mid-2007 and emphasized that the main reasons for the price hikes were higher agricultural production costs (also due to higher energy prices) and a lack of competition in retailing and wholesaling. As *Przemysław Woźniak* (Center for Social and Economic Research – CASE) pointed out, the commodity price surge came on top of recently accelerating price level convergence between emerging Europe and the euro area. *Woźniak* showed that for most of the CESEE countries, food price convergence trajectories lie below those for general consumer goods prices, indicating that food could have been underpriced so far. *Gert Wehinger* (OECD) stated that inflation should recede soon, as global growth was slowing and a possible speculative bubble in food and commodity markets was deflating, but long-term supply- and demand-side price pressures would remain. An adequate policy response should consist of enhancing competition, increasing energy efficiency, or promoting second-generation biofuels.

The subsequent policy panel brought together seven central bank representatives from the region who discussed the surge of inflation from their respective countries' perspective: *Ágnes Csermely* (Director, Magyar Nemzeti Bank), *Diana Dragutinovic* (Vice Governor, Narodna banka Srbije⁴), *Valentin Lazea* (Chief Economist, Banca Națională a României), *Märten Ross* (Deputy Governor, Eesti Pank), *Peter Ševčovic* (Board Member, Národná banka Slovenska), *Boris Vujčić* (Deputy Governor, Hrvatska narodna banka), and *Tina Žumer* (Advisor to the Governor, Banka Slovenije). The following conclusions can be drawn from their discussions: (i) higher price pressures will indeed remain a longer-term macroeconomic challenge for emerging Europe; (ii) uncertainty about the future development of prices is a key issue at this point; (iii) it is a special task for monetary policy to contain inflation expectations via sufficient transparency, improvement of inflation forecasts (in the case of inflation targeters), and proper communication with social partners so as to dampen the risk of second-round effects; (iv) increasing wage dynamics call for particular caution, especially considering the decline in productivity growth; (v) a determined reaction by central banks is necessary at this point, as a delayed response would possibly be much more costly; (vi) rapid credit growth has contributed to the acceleration of inflation (but may be a less severe factor going forward, given the incipient deceleration of lending dynamics as a consequence of the international credit crunch in several but not all CESEE countries).

All the speakers provided short summaries of their presentations that form the basis for this contribution.⁵ Section 2 recapitulates the background session. Section 3, which sums up the panel discussion, is split into two parts: contributions debating appropriate monetary policy strategies on the one hand, and on the other hand contributions elaborating country-specific reasons for the recent surge in inflation.

⁴ *Diana Dragutinovic* has meanwhile been appointed the Republic of Serbia's Minister of Finance.

⁵ *The individual summaries reflect developments up to June 2008.*

2 Background Session: Recent Surge in Inflation in Emerging Europe and Driving Factors

Christoph B. Rosenberg (IMF Regional Representative for Central Europe and the Baltics) opened the background session with cross-country comparisons of inflation trends, their impact and appropriate policy responses.

Global price trends: Starting in mid-2007, worldwide food and energy prices have trended sharply higher. This follows several decades of flat or declining global commodity prices. The current price boom is unusual in that it is broad-based (including oil, food and metals) and has been remarkably long-lasting. For example, the average length of past crude oil booms was about 18 months, and the price increase from trough to peak came to some 50%; the current episode has already lasted almost 80 months, with prices rising by some 250% since the last turning point in December 2001. The reasons for these trends have been widely discussed. Some of the main drivers include the rising demand from emerging market countries, the increasing role of biofuels, as well as supply bottlenecks and short-term factors like political tensions and weather conditions.

Impact on external balances: As a first approximation, the effect of the recent price increases depends on countries' trade balance with respect to food and energy. There are substantial differences between European countries. The new EU Member States (NMS) will be mainly affected through their negative energy balance. Within the region, the Baltics and Southeastern Europe face the highest risks, while Russia as an energy exporter will benefit from oil price hikes.

Impact on consumer prices: Since mid-2007, the Harmonised Index of Consumer Prices (HICP) in the NMS has surged, driven primarily by food and, more recently, energy price inflation. This was even the case in countries where the exchange rate has been appreciating lately, such as Poland, the Czech Republic and Slovakia. Worryingly, core inflation in the NMS has also been creeping up, suggesting that higher food and energy prices may be spilling over into inflation expectations. The same factors have also been at work in euro area countries, but the process started more recently and has been more muted. The Baltic and Southeastern European countries will again be affected the most, but also Russia and Ukraine. One of the key reasons for these intra-regional differences is the fact that energy and food have a relatively higher weight in the consumption baskets in poorer Eastern European countries, especially the Balkans (chart 1). Local supply conditions may also be playing a role, as Romania, Bulgaria and Ukraine experienced a poor harvest in 2007 (chart 2). *Ceteris paribus*, the higher impact of food and energy prices may make it more difficult to meet the Maastricht inflation criterion for countries aspiring to join the euro area.

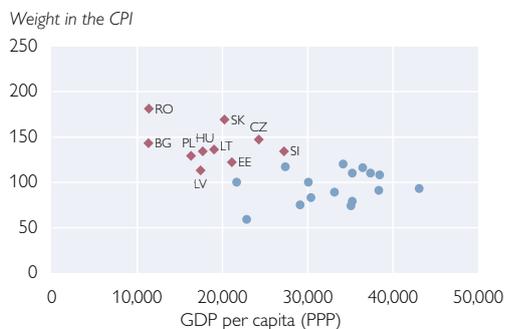
Macroeconomic context: External price pressures due to commodity prices come on the back of convergence-related overheating pressures in the region, which over the last years have been exacerbated by loose monetary and fiscal policies. These underlying trends include:

- Price convergence. Higher inflation in the NMS is a natural by-product of real convergence. The relative price level has been increasing as these countries have been closing the income gap vis-à-vis the old EU Member States.
- Large current account deficits. A number of countries in the region have seen very large external imbalances in recent years. A recent IMF Working Paper by Rahman (2008) found that in the Baltics and in Southeastern Europe,

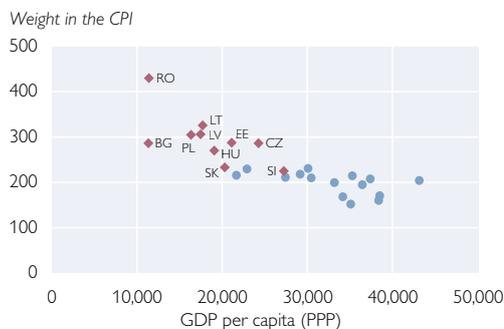
Chart 1

Energy and Food Weights in the Consumer Basket in the EU

Energy



Food



Source: Eurostat.

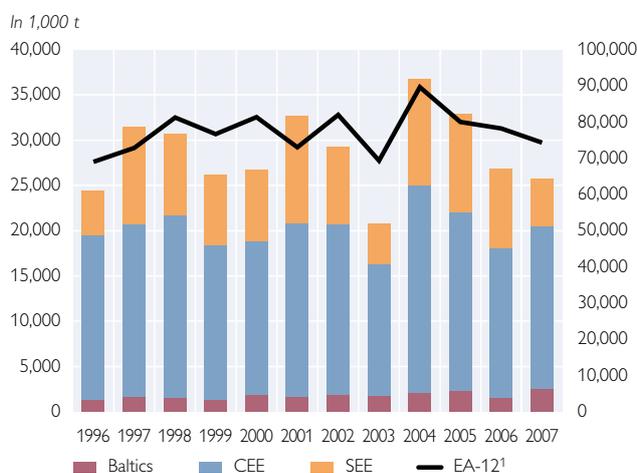
current account deficits by far exceed what would be suggested by economic fundamentals. Excessive deficits are another symptom of overheating pressures, but in some countries are also rooted in structural problems.

- Loose fiscal policies. Budgetary policies have been procyclical in many countries in the region, adding to domestic demand pressures. This is particularly the case in the Baltic countries and Romania, where structural balances deteriorated in the period from 2003 to 2007. In general, countries should have made better use of the recent cyclical upswing to consolidate their public finances.
- Loose monetary policies. Similarly, monetary conditions have loosened recently, as measured by the difference between actual interest rates and those suggested by the Taylor rule (chart 3). The Baltic countries – that have no con-

Chart 2

Wheat Output and Food Price Indices

Wheat Output 1996–2007



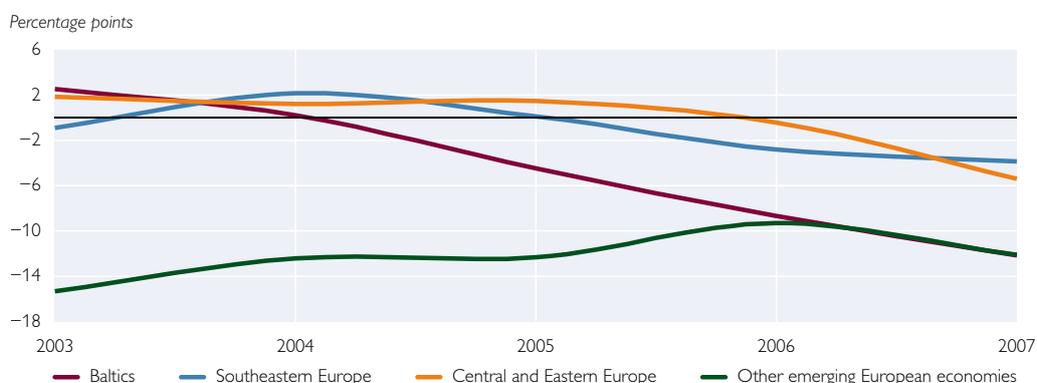
Source: Eurostat and IMF calculations.

¹ Right-hand scale.

Food Price Indices



Emerging Europe – Lending Interest Rates minus “Ideal” Taylor-Rule-Based Rates



trol over their monetary policy, given their fixed exchange rate regimes – have seen a very substantial loosening. This has fueled a very strong growth of private sector credit. This credit boom has now come to an abrupt halt, as Swedish parent banks started to slow the supply of financing last summer. Policy response to date: Few countries have so far reacted to the emerging commodity price pressures. Policy responses that did take place have been rather piecemeal and, aside from the EU as a whole, mainly concentrated in smaller Southeastern European countries. Measures include (i) lower import duties on grain in the EU, Russia, FYR Macedonia, and Kosovo; (ii) export taxes in Russia and Croatia, export quotas in Ukraine, and an export ban in Serbia; (iii) lower VAT and excises on food (Lithuania), on public transport (FYR Macedonia), and on fuel (Croatia); (iv) use of state commodity reserves in FYR Macedonia, Moldova, Montenegro, and Ukraine; (v) support to agriculture⁶ in Belarus, Croatia, and Moldova; (vi) moral suasion in FYR Macedonia, Montenegro, and Moldova; and (vii) tighter monetary policy, whereby most countries with flexible exchange rates have been increasing policy rates with the aim of fending off second-round effects.

Recommended policy responses: Much of the appropriate policy response will depend on whether the commodity price shocks are judged to be temporary or permanent. While the answer to this question may not be fully resolved yet, the IMF is advocating policies based on a number of principles that have proven useful in such episodes in the past. These include:

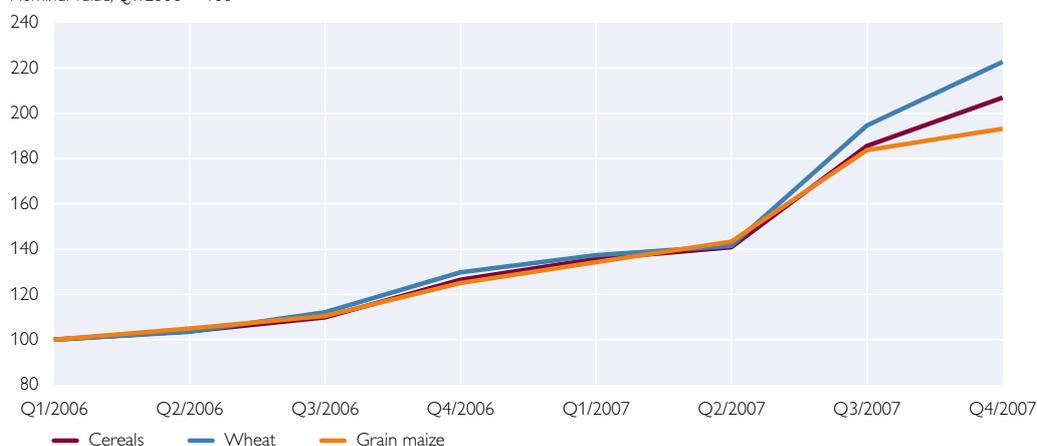
- Head off second-round effects by tightening monetary policy (where this is possible), restraining wage increases, and managing inflation expectations by communicating to the public that these price spikes are not necessarily set to continue.
- Grant social assistance if fiscal space permits. It is important that any such help is temporary (sunset clauses) and strictly targeted to the most needy.

⁶ Importantly, the EU suspended its set-aside policy which required that 10% of all agricultural land is withheld from agricultural production.

Chart 4

Doubling of Grain Prices in the EU

Nominal value, Q1/2006 = 100



Source: Eurostat, author's calculation.

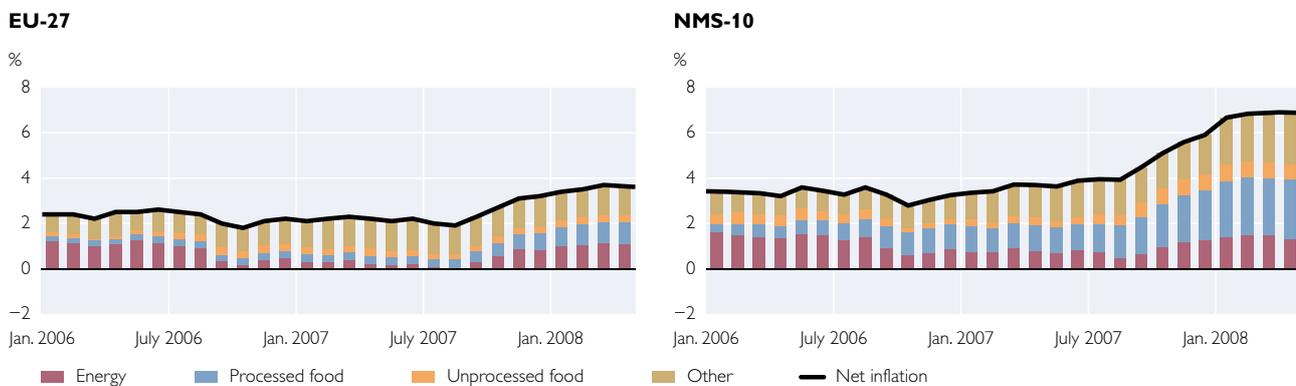
Note: Price indices of cereals refer to the price indices for wheat and grain maize.

- Pursue structural reforms, especially those aimed at increasing the supply response in food production. For the EU, this may require a rethinking of the common agricultural policy (with more emphasis on funds to improve the market infrastructure rather than direct support to farmers) and a reevaluation of existing biofuel policies.
- More generally, we are encouraged that the ECFIN meeting in Luxembourg confirmed the agreement reached in Manchester in September 2005 whereby “distortionary fiscal and other policy interventions should be avoided.” In particular, we do not think that ad hoc reductions of taxes on fuel are a good idea in the present circumstances.

Zdenek Lukas (Senior Economist, wiiw) elaborated the reasons for food price increases in CESEE – one of the main sources for the inflationary hike from mid-2007 to mid-2008.

In the past, fluctuations in world market prices for agricultural products were mostly driven by global weather conditions. More recently, the rise in the production of biofuels has created an additional link between the energy and agricultural sectors, as changes in the demand for fuel impact on markets for agricultural goods. As a result, the interdependence between the agro-food and the energy sectors has intensified and become more complex. Rising energy prices have strong effects on costs in agriculture, because the sector is very energy-intensive, particularly with regard to transport and nitrogen fertilizers. At the same time, the promotion of biofuel production is in part designed to protect against higher crude oil prices. In sum, strongly expanding global demand for grain because of rising food consumption and biofuel production has resulted in historically low stock levels and historically high grain prices. The latter have attracted share traders (financial speculators) who have increasingly invested into grain and other agricultural commodities, thus further contributing to rising prices.

Contribution to Year-on-Year HICP Inflation



Source: Eurostat.

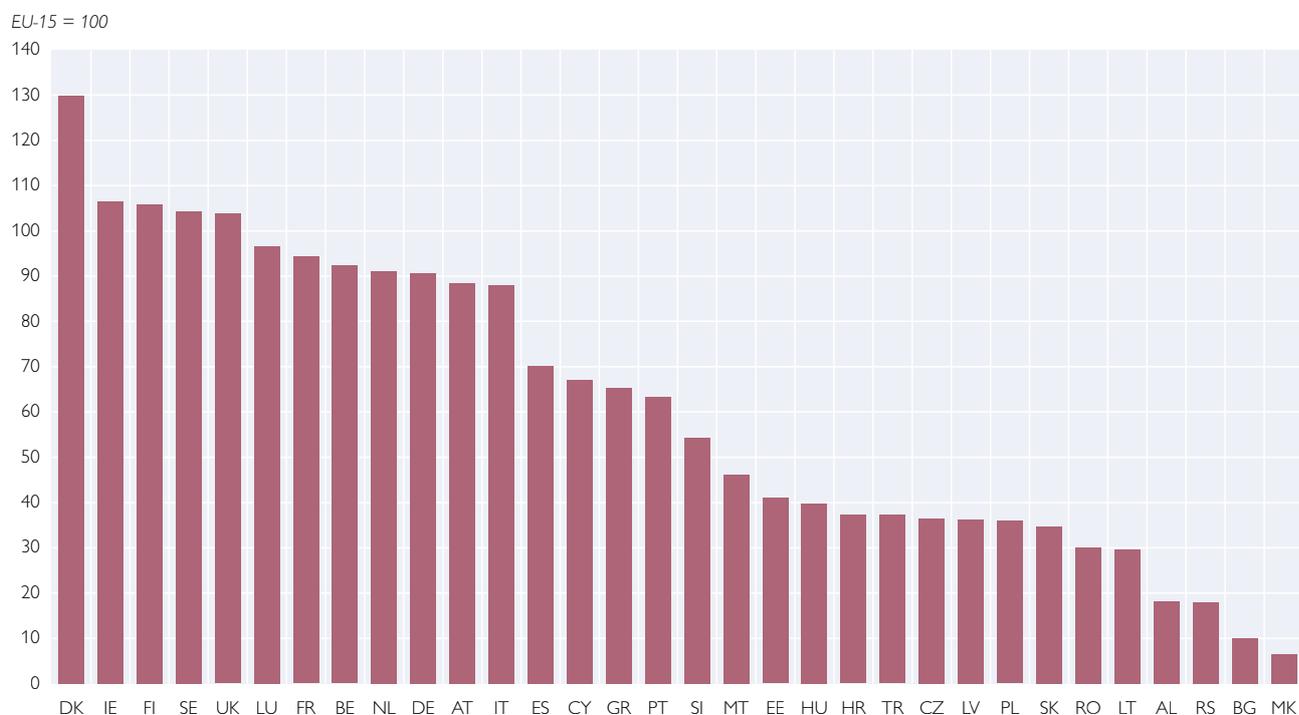
Note: Unprocessed food includes meat, fish, vegetables and fruit; processed food includes other food items (mostly grain products, dairy products, all beverages and tobacco).

Agro-food prices in the NMS-10 have expanded faster than in the EU-27. The highest increases among the NMS are found in Bulgaria and the Baltic countries, the lowest in Poland and Slovakia. This is partly due to the fact that the share of food in the consumer basket is higher in the former group of countries, and their national currencies are all pegged to the euro. As a result, imported inflation in euro terms was fully transferred onto domestic prices, while in Slovakia and Poland strong currency appreciation acted as a buffer against imported inflation. There are also significant differences in the competitive environment. Only a few international supermarket chains are interested in the EU's periphery in view of its small population (market size) and limited transport infrastructure, so competition is limited in Bulgaria and in the Baltic countries. Consequently, industry margins in retailing and wholesaling are high. By contrast, in the Central European food markets, e.g. in Poland and Slovakia, strong competition has mitigated the rise in food prices.

Thanks to promising forecasts for the 2008 grain harvests in Europe, grain prices may ease from this year's record levels. However, many agricultural commodity supplies will continue to be tight as stocks are not likely to be promptly (or sufficiently) replenished in the short run. As a result, it is very unlikely that prices will drop to pre-crisis levels anytime soon. This is true especially with regard to oilseeds and maize, as the latter is a major staple food in poor developing countries and an important input for bioethanol production. Both are important inputs for fodder production needed for expanding production of meat and dairy products, which are in high demand in emerging markets such as China, Russia, and India.

Chart 6

The Comparative Price Level of GDP in 2007



Source: Eurostat.

Agro-food products were cheap commodities for several decades, but the era of cheap food is definitely over. This problem will get worse as long as the U.S. and the EU continue to produce first-generation biofuels that are based on agricultural commodities.⁷

In all likelihood, the ratio between agricultural and non-agricultural prices will continue to go up in the long term, as will the ratio between incomes earned in the agro-food sector and other incomes, both urban and rural. Some regions specialized in agriculture could become more affluent than they were in the past. This is true mostly for developing countries, though several rural regions in the NMS could also gain in this context.

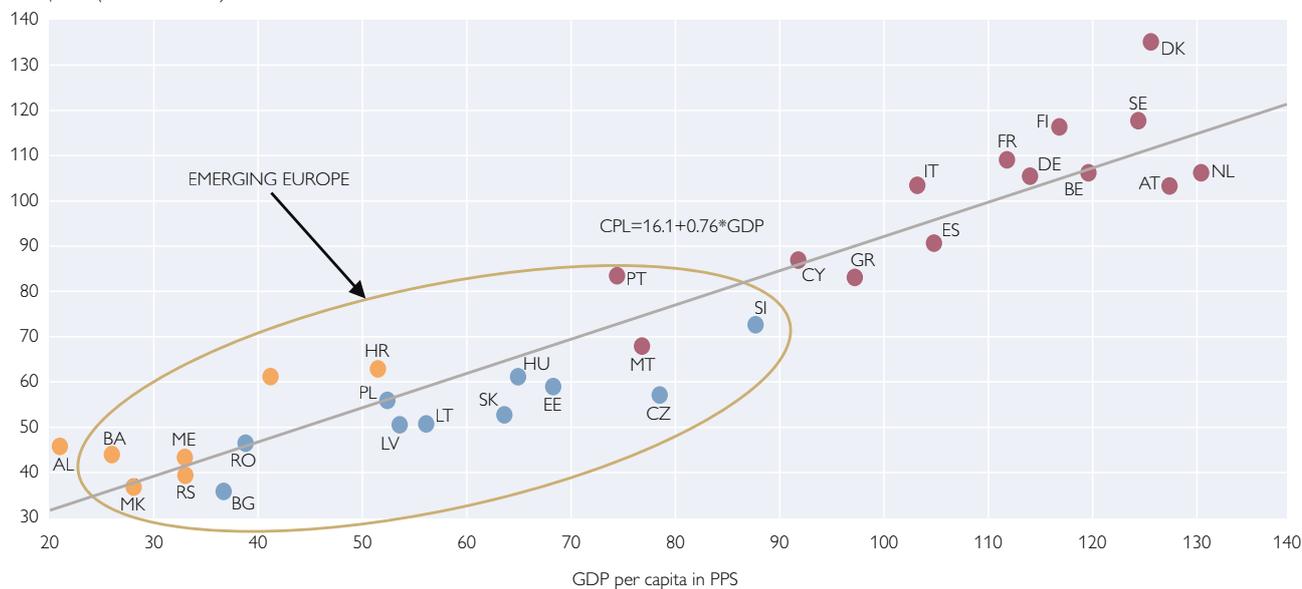
Przemysław Woźniak (Senior Economist, CASE, Warsaw) emphasized the impact of structural price convergence factors on the recent inflation surge in emerging Europe.

Even though the recent price surge might seem particularly severe in emerging Europe (EE) including the new EU Member States and Southeastern Europe

⁷ *Contrary to first-generation biofuels (that are primarily generated from agricultural crops), second-generation biofuels are produced from lignocellulosic or wood resources using new, advanced technologies that make it possible to convert this biomass to (energy-rich) liquid fuels. However, to date, these second-generation biofuels are even more expensive than first-generation biofuels.*

Comparative Price Level of GDP and GDP per Capita in PPS in 2006

CPL of GDP (euro area = 100)



Source: Eurostat and author's calculations.

Note: Luxembourg is not included as it is an outlier regarding GDP in PPS (233% of the euro area average); its CPL of GDP in 2005 was 109.

(SEE), price levels in the region are still generally well below those in the EU-15 (see chart 6).

Out of the 39 countries currently covered by the Eurostat/OECD Comparative Price Level (CPL) study (European Economic Area, SEE, Japan and the U.S.), the bottom 18 countries with the lowest price levels are those of EE, with the countries of SEE ranking lowest and posting levels that are generally well below 50% of the EU average. While theory points to a close causal relationship between income and price levels (confirmed by chart 7), clearly GDP per capita does not explain the entire variability of price levels. As Dreger et al. (2008) pointed out, price levels in the EU may also depend on the level of competition in individual markets, approximated by the openness to foreign trade and other factors such as taxation or transport costs.

Over the last one to two years, inflation rates have risen to new highs, with a clear positive (exchange rate-adjusted) inflation differential in EE vis-à-vis the EU-15, which points to the continuation of the convergence process. This trend is also confirmed by CPL indices that have been rising in recent years across EE with the exception of Croatia and FYR Macedonia. While prices of tradable food and consumer goods in EE are much closer to the euro area average than those of services (57% to 84% compared with 22% to 62%), the scale of recent upward adjustments seems comparable. Also, energy and food, which have been blamed for the recent inflation peak, exhibited only slightly higher upward dynamics than the rest of consumer goods, pointing to the fact that upward price pressures in EE might also be attributable to factors other than the recent global commodity price surge. Beyond that, food price convergence trajectories lie still below those for

general consumer goods prices for most of the countries, indicating that food could have been underpriced so far.

The period from 1999 to 2004 was marked by relative stability (or reversing trends) for most EE countries, while price levels started to rise faster after 2004. Two major factors might have been at play: accelerating economic growth and strengthening domestic currencies. The GDP growth differential vis-à-vis the euro area rose markedly in recent years (with the exception of a few countries), thus boosting relative income in EE and, through the Balassa-Samuelson effect, raising prices of nontradables and tradables alike (the latter, inter alia, via the *non-tradable* element in retail prices). Moreover, buoyant domestic demand was accompanied by high wage dynamics and underpinned by unprecedented credit growth amid generally lax fiscal and monetary policies, which exacerbated inflationary pressures.

Likewise, strengthening currencies are speeding up convergence through rising prices in EE in comparison with those in the euro area. In recent years (2007 and 2008 in particular) the nominal appreciation of EE currencies accelerated substantially – especially compared with the period from 2000 to 2004, when most domestic currencies were weakening.

Some other factors that might have played a role in increased inflation relative to the euro area are a generally lower openness to trade in EE (non-EU SEE in particular), weaker competition in the retail sector and higher reliance on poorly tradable market-specific agricultural and food products. On the other hand, a positive energy inflation differential may result from obsolete and inefficient technologies in the energy industry and the ensuing costly investments. Finally, the complex construction of CPL measures implies a high likelihood of rising values with increasing quality of goods and services; this phenomenon would leave inflation unchanged.

Gert D. Wehinger (Economist, Financial Affairs Division, Directorate for Financial and Enterprise Affairs, OECD, Paris) concluded the background session as discussant and provided the following comments.⁸

(A) Macro-background and explanations

One of the moot questions was whether the recent surge in inflation is a temporary phenomenon or a lasting challenge. It may be useful to look at explanations for high and chronic inflation that have helped us understand the phenomenon in the past – in particular the high-inflation episodes in Latin America in the 1970s and 1980s. Basically, the dividing line ran between structuralists and monetarists, and certainly both have added to the understanding of inflation and its propagation mechanisms.

Structural explanations: For over a decade we have been observing a positive supply “shock” (actually, a structural development rather than a shock-like event), driven by emerging economies, in particular China and India (re-)entering the world economy, which has put downward pressure on prices globally. Now, over

⁸ *The views expressed in this contribution are those of the author and do not necessarily reflect those of the OECD or the governments of its member countries. The author is solely responsible for any errors.*

the past few years, a *positive demand “shock”* from these emerging economies has started to counterbalance this effect, and prices for energy and food are among the most visible items affected. It seems that the great moderation (as some economists called the past two decades or so of disinflation and macroeconomic stability) may have come to an end.⁹

Monetary explanations: Partly linked to the China phenomenon are excess savings at a global level, resulting in *abundant global liquidity*, which has shown up in asset price bubbles and low interest rates (which were among the root causes of the U.S. housing debacle and subprime crisis). This liquidity is not only invested in foreign assets (especially U.S. treasuries), but is finally also starting to show up in emerging economies’ consumption demand and causing price levels to rise, commodity prices in particular (see chart 8).

Both structural and monetary explanations seem to indicate that the phenomenon of surging prices may be longer lasting than policymakers may have feared, and because underlying factors are global, domestic policies to combat inflation turn out to be less effective.

It is important to emphasize the structural developments leading to more long-term price pressures. For example, while the technologies we use have become more energy efficient, energy demand has grown per capita. In 1970, 2.2 barrels of oil equivalent were necessary to produce USD 1,000 of real GDP, while today it is only 1.3 barrels. However, improving living standards have lifted per capita annual energy consumption from 10 barrels of oil equivalent in 1970 to 12.5 barrels today. The strong crude oil demand from emerging economies is a reflection of this phenomenon.

(B) Reasons for food price increases

On the supply side, bad weather conditions have contributed to supply shortages, and rising fuel and fertilizer prices have increased production costs. This does not seem to be a temporary phenomenon only, as climate change may lead to more bad harvests in the future.

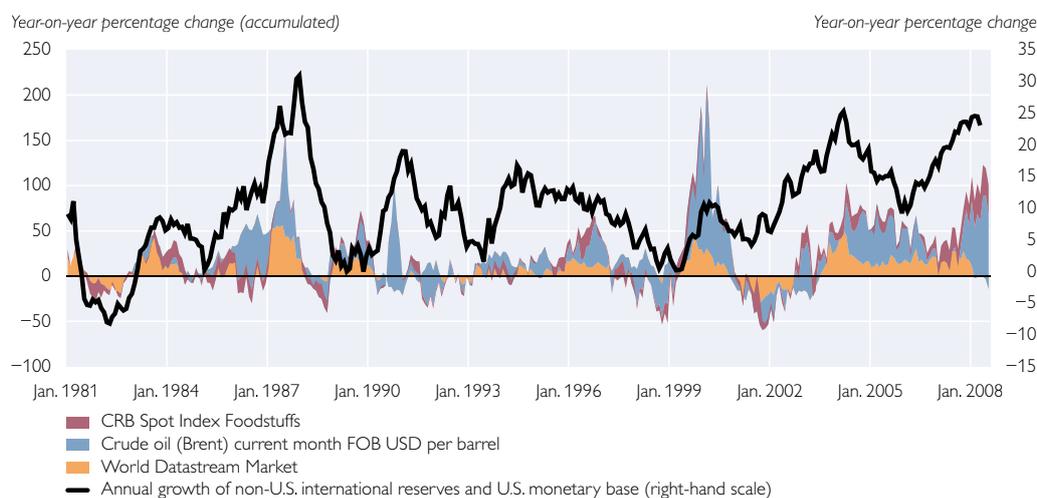
On the demand side, the strong trend growth in global demand for food has put upward pressure on prices, and more recently the promotion of, and rising demand for, biofuels has added to this development. Some may add speculative demand as one of the driving factors, which may be true in the short run. In the long run, however, speculation will hardly drive prices off their equilibrium levels. While trading on commodities markets and in commodity derivatives has seen an upturn in recent years, derivatives data do not currently indicate that speculation was a major factor in the recent surge in prices.

Cyclically, price pressures may be expected to alleviate somewhat. Even though long-term supply and demand conditions are likely to remain broadly unchanged and will keep putting upward pressure on food prices, they could rise less rapidly or even fall as global growth slows and a possible speculative bubble deflates.

⁹ *As an aside: Potentially, such a structural shift in global demand for food can improve agricultural terms of trade and should benefit the food producers. However, it turns out that such benefits are greatly diminished as these producers are also hurt by higher prices as food and energy consumers.*

Chart 8

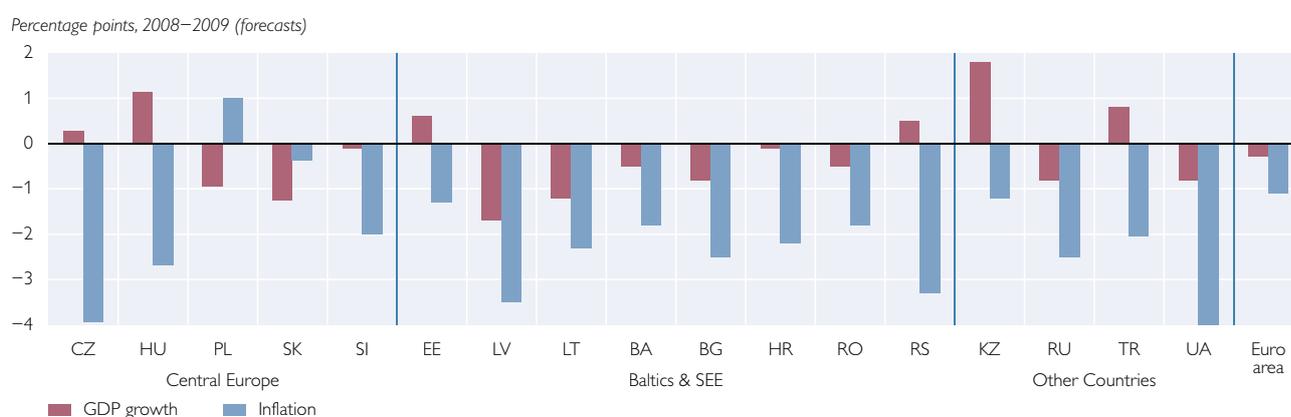
Asset and Commodity Price Bubbles vs. Global Liquidity



Source: Thomson Financial Datastream, OECD.

Chart 9

Disinflation Comes at a Price



Source: OECD, UniCredit Group CEE Research Network.

(C) Some policy implications

In many CESEE countries inflation is still relatively high (compared with the euro area) due to specific domestic factors (including convergence), and the waning of these factors in conjunction with successful stabilization policies has contributed to disinflation. Inflation forecasts are generally on the downside – but so are growth forecasts: disinflation comes at a price (see chart 9).

In the specific context of rising food and energy prices, various structural policies may be conceived to supplement monetary and fiscal policy measures so as to facilitate disinflation. Such policies, which are also more long-term oriented, may include (i) measures to enhance competition, (ii) cutting back distortionary policies to incentivize supply, (iii) measures to increase energy efficiency, (iv) incentives for switching to second-generation biofuels, and (v) regulatory policies, including those addressing speculation.

3 Panel Discussion: What to Do about Inflation? The Possibilities and Limits of Policy Measures

3.1 Appropriate Monetary Policy Strategies

Ágnes Csermely (Director Monetary Strategy and Economic Analysis, Magyar Nemzeti Bank) opened the panel discussion with her statement on How to respond to an imported inflation shock in a small open economy – The case of Hungary.

From the perspective of a small open economy that is a commodity importer, recent developments appear as a series of terms-of-trade shocks, which influences both growth and inflation via compound propagation mechanisms.

Models currently used for monetary analysis do not provide unambiguous policy advice about the optimal policy reaction to a terms-of-trade shock. A shock to import prices opens the inflation and the output gap in the opposite direction, and – assuming the shock is temporary or one-off – the inflation gap peters out relatively quickly. As a result, the conventional Taylor-type reaction functions tend to suggest almost full monetary accommodation. In this setting, the modeling challenge arises from the altered time pattern of the shocks. While the model is estimated on past data, we have seen a new pattern over the last two years, which can only be emulated as a series of shocks, all of them characterized by the old, low persistence parameter.

The results change dramatically when the desirable policy is approximated by an endogenous optimal interest rate path in a Dynamic Stochastic General Equilibrium model framework. In such a model, the terms-of-trade shock has a negative effect on potential GDP, so that an optimizing policy puts less emphasis on smoothing output. Both factors, the longer horizon and the separation of potential and cyclical components of growth, suggest a much stronger reaction to inflation. Nevertheless, in the current situation it is particularly difficult to draw quantitative conclusions from the simulation exercises. In addition to the usual problem of disentangling cyclical and potential components of growth in real time, communication of monetary policy becomes particularly demanding. The concept of flexible-price potential output is far too difficult to explain to the general public, and people perceive that the central bank's policy amplifies adjustment costs to the real economy.

Finally, standard models assume that inflation expectations are well anchored. The period of temporarily high inflation becomes protracted as a result of import prices growing continuously, which increases the risk that expectations get stuck at the observed high inflation level. Theory suggests that fast and decisive monetary tightening is required when the credibility of the inflation target starts to weaken.¹⁰ But how far we can go without endangering the central bank's credibility and when should we opt for preemptive tightening? Standard models give little advice on these issues.

As far as Hungarian monetary policy is concerned, in the recent past we faced a dilemma that was similar – although of domestic origin – to the current one. The fiscal consolidation program introduced in the second half of 2006 raised inflation (due to indirect tax and regulated price increases) and simultaneously

¹⁰ See *Blinder, A. S. 1999. Central Bank Credibility: Why Do We Care? How Do We Build It? NBER Working Paper 7161.*

held back economic activity. At that time, it was reasonable to assume that the inflationary impact of the fiscal adjustment would be temporary; moreover, the lags in the transmission process would have prevented an efficient monetary policy response anyway. Therefore, Magyar Nemzeti Bank (MNB) decided not to offset the direct inflationary impact of the fiscal measures; instead it concentrated on potential second-round effects. As the fiscal shock was accompanied by a negative risk premium shock and a weaker exchange rate, monetary tightening was warranted. In the second half of 2006, the MNB hiked its key interest rate by 150 basis points.

Later, just when the inflationary impact of the fiscal consolidation package started to fade away, oil and food prices began to surge. The MNB publishes forecasts conditional on commodity price developments based on market and expert information. In the recent forecasting rounds, we had to revise upward oil and food price assumptions. Higher commodity prices led to a slower forecast disinflation path, while the deteriorating global growth outlook restrained the recovery of the economy to potential growth level.

Ignoring a temporary spike in inflation once does not necessarily hurt the central bank's credibility, but behaving in a similar way repeatedly might jeopardize it. It might send the wrong signal to economic agents that the central bank tolerates above-target inflation, and it makes price and wage setting adjust to the perceived high inflation level. In order to prevent inflation inertia from increasing, the MNB had to start the tightening cycle in March; so far, it hiked the repo rate by 100 basis points.

Diana Dragutinovic (then Vice Governor, Narodna banka Srbije) discussed the reaction to inflation shocks from the perspective of Serbia as an inflation-targeting country.

This statement comes in support of inflation targeting (IT) in a period when many question the capacity of IT regimes to sustain low inflation against the backdrop of soaring commodity and food prices. The question we are facing is whether we are witnessing a repetition of the 1970s and their monetary policy challenges or whether the current inflation rise is a temporary blip. What is the appropriate reaction – benign negligence (that backfired in the 1970s in countries like the U.S. or the U.K.) or decisive restriction (paying off in Germany, Japan or Switzerland)?

The appropriate reaction to an inflation shock depends on its duration and source. Three different durations are debated today in the context of the oil price shock: (i) the shock raises the oil price level permanently, (ii) the shock raises the oil price level only temporarily, or (iii) the shock raises oil price inflation for a prolonged period. The appropriate IT-consistent policy response will differ in each case:

- In the case of a permanent inflation shock, a decisive reaction to full headline inflation is needed. Limiting the reaction to secondary core inflation effects or a wait-and-see approach are bound to lead to rising inflation expectations and falling credibility, which will need to be tackled with even tighter monetary policy later on.

- A temporary level shock, in contrast, can safely be ignored. All three different policy reactions have similar inflation profiles. Reaction to full headline inflation, however, would bring about unnecessary nominal and real fluctuations.
- An intermediate case of a permanent level shock is the most ambiguous, but the core inflation reaction seems to offer a good compromise between the concerns for price and output stability.

The experiments show difficulties in deciding on the monetary policy reaction *ex ante* under imperfect information about the nature and duration of the shock. Many countries, including Serbia, initially thought that the inflation shock was temporary, and perhaps underestimated the nature of the shock by overplaying the importance of the food price shock and downplaying that of the oil price. These assessments did not require much reaction apart from focusing on the secondary spillovers to core inflation. Many countries were also concerned about unnecessarily restraining growth at a time when the global financial turmoil made the financing of emerging markets' growth more expensive and a global slowdown more likely. Among the established IT countries, inaction was further supported by the fact that long-term inflation expectations were anchored at inflation targets. As time progressed and more information became available, many reevaluated the responses to rising inflation. In particular, the shock proved to be more persistent than initially expected. Information about its origins also changed, as the price of oil came to replace that of food as its main driver. Many became more concerned about higher and persistent inflation, and tightened monetary policies, including the ECB. Also the IMF recently urged countries to make inflation fight a priority.

Serbia's example is also illustrative. Initially, when the food price shock hit the country in mid-2007, the authorities considered it to be only temporary and signaled only a benign reaction. Later on they were caught by surprise by the persistence and severity of the shock. The initially low inflation expectations (that were not enough anchored to targets yet) began rising rapidly, forcing the central bank to react to the full scale of the shock.

Märten Ross (Deputy Governor, Eesti Pank) discussed appropriate monetary policy rules from the perspective of Estonia's currency board.

Looking at inflation developments in Estonia over the last five to six years, the price level change was not much out of line with real convergence (at least until very recently). Incomes rose by close to 7% to 8% on average, and the inflation rate increased by roughly 5%. As a double check, one should recall that the increase in Estonian real exchange rates in this century was no higher than in other NMS.

As expected, the fixed exchange rate and open trade regime delivered an inflation rate in the nonenergy tradable goods sector that was close to the euro area level. At the same time, EU accession-related supply shocks in the labor market and the financial market brought about a one-off jump in domestic demand and wages, thereby pushing up also services prices. While this increase coincided broadly with the overall increase in global inflation, these processes have a different background and have therefore shown also subsiding tendencies recently. However, the most important factors pushing inflation higher over the last year were global pressures from energy and food markets.

What we can and cannot do with monetary policy in this environment is quite a problem. Individual (small) countries cannot target global inflation – we simply have to adjust to that reality. Technically, Estonia (as other NMS) is affected more strongly by these pressures than older EU countries, as the share of food and energy is bigger in Estonia's consumer basket. If anything, the NMS are therefore under even bigger pressure to intensify a restructuring of the economy in order to safeguard society from global shocks more efficiently. At the same time, the convergence-related inflation differential vis-à-vis the euro area is not a problem to the extent that monetary policy remains credible and transparent. The problem here arises when the public does not understand or does not believe in monetary rule.

What is the role for monetary rule then? In my understanding, the most important fundamental aim of monetary policy in this environment should be to support, as much as possible, transparency in price formation and give adequate future guidance on price levels in general, but also on relative prices in particular. Simplicity could therefore be another helpful feature of monetary policy rule. In addition, it is of utmost importance to avoid raising unfounded hopes like “we are doing everything to keep food prices (relatively) low.” Understanding the limits of the monetary rule definitely remains crucial also for state budget planners.

The functioning of the currency board in Estonia has been quite satisfactory in light of the developments mentioned above. The problems arose at an early stage of the supply-side shock, with overoptimistic expectations of future income and potential growth emerging in 2005 and early 2006. However, with the exchange rate serving as a credible anchor, excesses started to be corrected relatively quickly, as the economy could no longer afford price misalignment vis-à-vis our competitors. If expectations are of any value, then recent data show that the currency board has fixed them well in the current global turmoil.

Peter Ševčovic (Board Member, Národná banka Slovenska) provided facts about the changing nature and driving forces of inflation in Slovakia with a view to shaping long-term monetary policy strategies.

As in other transition economies, price developments in Slovakia went through various periods and stages which were marked not only by diverse influences but also differed in terms of monetary policy performance.

In the first period, up to 2000, the Slovak Republic was a typical transforming economy that was characterized, on the one side, by a gradual liberalization of the balance of payment's current and financial accounts, which was later reflected in exchange rate volatility. On the other side, following the initial depreciation of the currency in the period after the establishment of the Slovak Republic, when inflation was in the double-digit range, it was necessary to determine an anchor for the development of the whole economy and, particularly, for preventing hyperinflation. As in most countries, the anchor consisted in fixing the exchange rate and using direct monetary policy instruments (credit limits, foreign exchange positions for monetary purposes, quantitative operations on the interbank market), as the economy was not used to react flexibly to changes in interest rates. These instruments were successful in that first period, and the inflation rate moved in line with acceptable levels. International financial crises and significant macroeconomic imbalances caused the fixed exchange rate regime to become unsustainable in 1998.

The second period started with the implementation of a floating regime and the establishment of a new government: It was a period of reforms and gradual transition to the standard instruments of monetary policy. Gradually, the system was abandoned and in 2000 the central bank started to set key interest rates. The development of the exchange rate was supposed to fulfill a stabilization task, as the reforms had a pro-growth impact on inflation development. These reforms consisted, inter alia, in eliminating cross subsidies and changing regulation of energy prices so as to reflect real costs. Henceforward, indirect taxes were harmonized with the EU and, within the tax reform, the focus was transferred from direct to indirect taxes. Wage policies of both general government and private companies were restrained, which led to a negative income effect. This also helped to stabilize inflation and improve a high current account deficit. At the same time, it contributed to the minimization of secondary effects on inflation development. Since 2005, Slovakia has created conditions for the introduction of inflation targeting. This strategy was part of a nation-wide plan to introduce the euro by 2009, which was approved in 2003.

Considering that the system of inflation targeting has a short history in the Slovak Republic, it is impossible to assess its influence on the development or stabilization of inflation. Public inflation expectations were obviously on a downward path, which may be connected both to inflation targeting and the revision of inflation targets from 3.5% to 2% over the last three years, but also to the favorable inflation development itself. Just because of the development of these factors, which are outside the influence of monetary policy, the inflation target was met only in 2005.

So far, we have not observed an impact on inflation expectations and wage requirements from the absence of inflation targets. Yet the demand side of inflation has not been sufficiently developed, and the influence of the Balassa-Samuelson effect has been relatively small, contributing no more than 1 percentage point to inflation development. At the same time, the power of trade unions is not great, which – together with sufficient competitiveness in the retail market – represents a dampening effect for possible inflation pressures.

3.2 Country-Specific Inflation Peculiarities and Possible Policy Measures

Tina Žumer (Advisor to the Governor, Banka Slovenije) focused on the factors driving inflation in Slovenia since 2007 and discussed possible policy measures.

Inflation picked up significantly more strongly in Slovenia than in the euro area. The country was hit by the external global price shock like the other EU and euro area countries, but this shock was propagated in a disproportionately stronger way due to favorable domestic cyclical conditions and it was amplified by strong domestic demand and other domestic factors. In particular, structural characteristics (e.g. the degree of competition and, in turn, pricing power) have likely played a role in this respect.

External factors: While the contribution of energy to the HICP developed in line with the euro area (as a result of regular price adjustments to world markets), the contribution of food clearly outpaced the euro area from the beginning of 2007. External factors were an important, but not the only factor explaining the recent inflation surge in Slovenia. This is also reflected in the HICP underlying inflation excluding food and energy, which increased to around 4% annually in

the second quarter of 2008, while remaining broadly stable (below 2%) in the euro area.

Domestic factors: All available indicators suggest that GDP growth was above its potential in 2007, which in turn indicates a potential for inflationary pressures owing to the lack of spare capacity in the economy. Furthermore, the unemployment rate reached a historical low and tightness in the labor markets was also confirmed by surveys. With some delay, wage growth started to pick up and ULC, which impact heavily on firms' output price, gradually accelerated to close to 5% year on year in the first quarter of 2008, after being broadly stable in 2005 and 2006. Mirroring strong domestic demand and rising inflation, the current account deficit widened significantly to 6% in the first quarter of 2008. Taking all these indicators together, it becomes apparent that domestic factors are important in explaining the current high inflation and should be thus considered when formulating policy recommendations.

Further to the cyclical factors, country-specific factors have also contributed to the recent rise in inflation, in particular Slovenia's EU entry in May 2004 and the euro introduction in January 2007. In the longer-term perspective, the structural properties of an economy (such as the degree of competition and flexibility in the markets) importantly shape inflation developments in a country. The Balassa-Samuelson effect typically attributes a part of higher inflation in catching-up economies to the differences in productivity growth in the tradable and nontradable sectors. However, available estimates suggest that the inflation differential between Slovenia and the euro area has been significantly larger than the available estimates of the Balassa-Samuelson effect could explain.

The role of economic policies: Upon euro area entry, policy options to counteract inflationary pressures changed, as there is no autonomous monetary policy anymore. As a result of an asymmetric rise in inflation in the environment of common monetary policy, conditions in Slovenia became over-expansionary, with real interest rates dipping into negative territory in 2007.

Fiscal policy in Slovenia was broadly neutral over the last two years, but an expansionary stimulus is expected in 2008. Given the inflationary risks identified, the broadly neutral stance over the last two years appears to have been not enough to efficiently counteract rising inflation. Hence, achieving a surplus in the general government balance and a more restrictive fiscal stance would be warranted.

Furthermore, wage policies and wage agreements are particularly important given external price shocks. Currently, Slovenia is facing a very unpleasant arithmetic, namely rising wage growth and declining productivity growth, pointing to strong inflationary pressures. Recent wage settlements in the public sector indicate high wage growth also for 2009 and 2010. Wage agreements were based on inflation forecasts, but they also foresee a compensation for past inflation, so that the agreements de facto imply nearly full indexation of collectively agreed wages on past inflation. This suggests that the risks for second-round effects have already materialized. In the light of currently unfavorable growth prospects, the adjustment burden lies mainly on the side of the labor market, or the economy will get stuck in a prolonged period of low growth.

Boris Vujčić (Deputy Governor, Hrvatska narodna banka) put the recent inflation developments in Croatia in a comparative perspective.

Mainly driven by supply side shocks, inflation started to accelerate in the middle of the third quarter of 2007. Higher prices for food raw materials and crude oil spilled over to food products and energy prices. However, Croatia's average inflation rate for the period from 1994 to 2007 was considerably lower at 3.2% than in Hungary, Poland, and Slovenia. Price pressures should ease in the near future, assuming restrictive fiscal and monetary policy, wage growth below productivity, and structural measures being pushed ahead by the government.

The weight of food in Croatia's CPI basket (29.1%) is much higher than in other countries of the region and in the euro area, where this share comes to just 14.4%. Price levels in Croatia are comparatively high, which should help dampen the future price convergence impact on inflation.

The Hrvatska narodna banka tightened monetary policy in 2007 and early 2008, inter alia by restraining credit growth, which should help to contain inflation pressures and expectations triggered by supply-side factors on the one hand, and still strong growth of domestic demand on the other. Some impact on inflationary pressures can also be achieved through exchange rate policy, as appreciation helps dampen import price increases. However, the exchange rate as a tool remains of limited use, as competitiveness considerations must be taken into account. A sustainable dampening of inflationary pressures can only be effective if supported by adequate fiscal and wage policies. Fiscal policy should impose stricter controls over expenditure growth, while wage increases should not exceed labor productivity growth.

Valentin Lazea (Chief Economist, Banca Națională a României) highlighted peculiarities of inflation in Romania and policy measures to address them.

After falling steadily for more than seven years (from 2000 to mid-2007), inflation in Romania started to rise again from July 2007. What is worrisome is that in Romania's case, all inflation measures increased (headline, core1, core2, and adjusted core2). One peculiarity explaining high inflation is the very strong increase in the prices of food, which have the largest weight in the CPI basket (38.3%) of all CEE countries. But also the prices of food relative to the EU average are among the highest in the region. Overall, food prices in Romania represent 71% of the EU-27 average. Herein lies one of "little dirty secrets" of the country's agriculture, which was heavily subsidized even prior to the adoption of the common agricultural policy. As a result, Romanian consumers paid much higher prices than under normal competition. Moreover, at the moment of EU accession, food prices did not jump as a result of new EU tariffs, because they had already been at high levels.

The second important reason for a surge in Romanian inflation was the decoupling (which started in 2006, but materialized in 2007) between wage growth and productivity growth. As a matter of fact, nominal wage growth in Romania, at 21.5% in 2007, remains the highest in the region (except for the Baltic countries) and accelerated (!) each year from 2005 to 2008. It is likely that Romanian policymakers, employers, and employees have not realized that the EU accession party is over, that global sentiment has changed (much) for the worse, and that foreign investors harshly penalize countries that pursue reckless policies.

The third factor contributing to Romanian inflation is the continuing rapid growth of credit to the private sector. It continues to expand at around 50% per annum in real terms (!), whilst in the Baltic countries it started to decelerate a long time ago, and in the four Visegrad countries¹¹ growth never exceeded 35% per annum. Even in Bulgaria, which for a period had similar rates of credit growth, the downturn has been much sharper. What is even more worrisome is that foreign currency-denominated credit grows at the alarming real rate of 70% or more, with very few signs of deceleration. Also, credit granted to households (which, by definition, are less sophisticated and relatively unhedged borrowers) rises much faster than credit to firms.

Banca Națională a României (BNR) hiked the monetary policy rate from 7% in September 2007 to 9.75% in May 2008, and future hikes should not be ruled out. Also, a firm management of money market liquidity was (and will continue to be) pursued. In this respect, it is worth noticing that the BNR's position vis-à-vis the banking sector is gradually changing from that of net debtor to net creditor. The minimum reserve requirements were maintained at the very high level of 20% (for domestic currency deposits) and 40% (for foreign exchange deposits). A prudential measure (which also has monetary effects, though) was to increase, in early 2008, provisioning for credit related to unhedged borrowers.

Among the reforms, continuing structural reforms (competition, labor, infrastructure) is paramount so as to boost productivity growth. Income policy should be restrained, in order to match productivity gains. Last, but not least, tighter-than-projected fiscal policy is needed in order to help narrow macroeconomic imbalances.

Finally, *Zornitza Vladova* (Economist, Bulgarian National Bank) submitted a contribution on recent inflation developments in Bulgaria.¹²

The sharp pickup in consumer price inflation since mid-2007 has been largely driven by the substantial contributions of the prices for food, catering services, energy and transport services. Food prices contributed 5.1 percentage points to annual inflation, catering services 1.8 percentage points, energy prices and transport services prices 1.1 and 0.6 percentage points, respectively.

Recent inflation developments in Bulgaria have been driven by a combination of country-specific, external and catching-up factors. A strong supply-side shock to food prices in the third quarter of 2007 was attributable to the fact that over the previous year, agricultural crop output contracted by about 35% for weather-related reasons and the coincident global agricultural commodity price increases, which had implications for high food inflation in the first half of 2008.

Poor harvests in Romania in 2007 disproportionately increased the demand for food produced in Bulgaria. In addition, an important driver of inflation in the first year of Bulgaria's EU membership was the increased foreign demand for food from EU countries (especially from Romania and Greece, but also from Germany). The introduction of the single customs tariff as of the beginning of

¹¹ Czech Republic, Hungary, Poland, Slovakia.

¹² Unfortunately, the representatives of the Bulgarian National Bank could not attend the workshop; they submitted this comment instead.

2007 drove up the import prices of some food products and agricultural raw materials.

The relatively large share of agricultural raw materials in food production costs (in contrast to euro area countries where labor and energy are the main components) has also contributed to increasing consumer food prices. A cartel agreement between vegetable oil producers, established by the Commission for Protection of the Competition, played a role in the substantial pickup in vegetable oil prices against the background of an increase in international prices of sunflower and a weak sunflower harvest in the country. This cartel agreement highlights the relevance of other possible imperfections in the structure of the domestic food supply chain.

Increases in excise duties on fuels over the last two years in line with surging international oil prices have contributed to a pickup in domestic energy prices. Since the end of 2007, energy and transport services prices have become an important contributor to annual HICP growth.

The acceleration in wage and ULC growth in 2007 occurred against the background of relatively stable developments over the previous years. The highest increase in nominal ULC growth was observed in the construction and services sectors, while the respective growth rate for the manufacturing sector was much less pronounced due to a substantial increase in labor productivity in that sector. Thus, inflationary pressures through the supply-side channel affected mainly service sector prices.

The most substantial adjustments of administered prices that were implemented in 2007 and the first half of 2008 cover electricity and water supply, sewage collection, road taxes, medical services and hospital services, as well as passenger transport by road. In effect from the beginning of 2008, excises were increased on tobacco, on electricity for business use and on coal and coke with a direct and indirect impact on HICP inflation.

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.

Economic Country Risks Emanating from Austria's International Exposure

Austria's special role as one of the leading investors in Eastern and Southeastern European growth markets increasingly raises questions on the risk capacity of Austria's foreign portfolio. Using selected macroeconomic indicators, this article assesses the economic country risk attached to Austria's external assets. A scoring model facilitates the calculation of individual country risks, which are linked to detailed regional data from the external statistics of the Oesterreichische Nationalbank (OeNB), thus enabling us to draw conclusions on the regional and functional risk structure of Austrian international investment. This reveals that, in capital-weighted terms, the developed and leading financial markets of Europe and the U.S.A. have a far stronger influence on total risk than that of the 12 EU entrants since 2004 (EU-12) or the Eastern and Southeastern European countries. Despite its intensive investment in Eastern Europe, Austria's international risk largely stems from securities holdings in developed industrialized countries. The EU-12 account for no more than a fifth of capital-weighted risk, while the region of Eastern and Southeastern Europe represents just a tenth of total exposure. Nevertheless, some growth markets, such as Hungary, Poland, the Czech Republic or Russia, already have more impact on Austria's total risk than some Western European markets. The projection up to 2009 suggests a leveling off in the total risk presented by Austria's external assets. A generally stable development in the EU-27 is somewhat offset by a more unfavorable risk environment in some European growth markets and in the U.S.A.

Matthias Fuchs

Published in Monetary Policy & the Economy 3/2008.

The Refinancing Structure of Banks in Selected CESEE Countries

Since the onset of the global financial market turbulence in mid-2007 there have been concerns whether and to what extent the unfolding liquidity squeeze may affect banks in Central, Eastern and Southeastern Europe (CESEE). In this note, we present systematic regional and cross-country information about the refinancing structure of the banking sector in selected CESEE countries as at end-2007 and mid-2008 (most recent data, depending on data availability). Thus, we focus on the situation of banks in these countries before external funding conditions deteriorated significantly for some of them, which happened in the second half of 2008 and has become particularly evident since mid-September. We benchmark the region against the euro area, and – where appropriate – against non-European emerging market economies. This exercise is to contribute to a better understanding of the risks to these countries emanating from the global liquidity squeeze, which may turn out to be more persistent and more relevant for the CESEE region than assumed when the turbulence began to unfold in mid-2007.

Zoltan Walko

Published in Financial Stability Report 16.

Statistical Annex

Statistical Annex

Table 1

Gross Domestic Product

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|----------------------------|-------------------------|------|------|------|------|------|------|
| | Annual real change in % | | | | | | |
| Albania | 7.9 | 4.2 | 5.8 | 5.7 | 5.7 | 5.5 | 6.0 |
| Bosnia and Herzegovina | 4.5 | 5.5 | 3.0 | 6.3 | 3.9 | 6.9 | 6.8 |
| FYR Macedonia ¹ | -4.5 | 0.9 | 2.8 | 4.1 | 4.1 | 4.0 | 5.0 |
| Serbia | 4.8 | 4.2 | 2.5 | 8.4 | 6.2 | 5.7 | 7.5 |
| Montenegro | 1.1 | 1.9 | 2.5 | 4.4 | 4.2 | 8.6 | 7.0 |
| Ukraine | 9.2 | 5.2 | 9.6 | 12.1 | 2.7 | 7.3 | 7.6 |

Source: wiiw.

¹ Former Yugoslav Republic of Macedonia.

Table 2

Industrial Production

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|-------------------------|------|------|------|------|------|------|
| | Annual real change in % | | | | | | |
| Albania | 6.1 | -5.1 | 29.0 | 14.1 | 11.7 | 12.1 | -5.1 |
| Bosnia and Herzegovina | 4.9 | 5.7 | 5.1 | 12.1 | 10.8 | 11.5 | 6.4 |
| FYR Macedonia | -2.9 | -4.8 | 4.1 | -2.2 | 7.1 | 3.6 | 3.7 |
| Serbia | 0.1 | 1.8 | -3.0 | 7.1 | 0.8 | 4.7 | 3.7 |
| Montenegro | -0.7 | 0.6 | 2.4 | 13.8 | -1.9 | 1.0 | 0.1 |
| Ukraine | 14.3 | 7.0 | 15.8 | 12.5 | 3.1 | 6.2 | 10.2 |

Source: wiiw.

Table 3

Average Gross Wages – Total Economy

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------------------|--------------------|------|------|------|------|------|------|
| | Annual change in % | | | | | | |
| Albania | 11.0 | 11.6 | 12.0 | 2.8 | 5.0 | 7.5 | 8.1 |
| Bosnia and Herzegovina ¹ | 4.9 | 5.7 | 5.1 | 12.1 | 10.8 | 11.5 | 6.4 |
| FYR Macedonia | -0.4 | 6.4 | 4.9 | 4.1 | 2.7 | 8.0 | 4.8 |
| Serbia | 128.8 | 52.6 | 25.3 | 23.7 | 24.1 | 24.4 | 22.1 |
| Montenegro | 16.8 | 42.6 | 7.8 | 11.7 | 7.8 | 15.6 | 31.7 |
| Ukraine | 35.2 | 21.0 | 22.8 | 27.6 | 36.7 | 29.2 | 29.7 |

Source: wiiw.

¹ Net wages.

Table 4

Unemployment Rate

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------------------|-------------------------|------|------|------|------|------|------|
| | <i>End of period, %</i> | | | | | | |
| Albania ¹ | 14.5 | 15.8 | 15.0 | 14.4 | 14.1 | 13.8 | 13.2 |
| Bosnia and Herzegovina ¹ | 40.3 | 40.9 | 41.9 | 43.2 | 44.1 | 44.1 | 42.5 |
| FYR Macedonia ² | 30.5 | 31.9 | 36.7 | 37.2 | 37.3 | 36.0 | 34.9 |
| Serbia ² | 12.2 | 13.3 | 14.6 | 18.5 | 20.8 | 20.9 | 18.8 |
| Montenegro ² | 23.7 | 20.7 | 22.7 | 27.7 | 30.3 | 29.6 | 19.3 |
| Ukraine ² | 10.9 | 9.6 | 9.1 | 8.6 | 7.2 | 6.8 | 6.4 |

Source: wiiw.

¹ Registered, end of period.

² Labor Force Survey, period average.

Table 5

Industrial Producer Price Index

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------------------|---|------|------|------|------|------|------|
| | <i>Period average, annual change in %</i> | | | | | | |
| Albania ¹ | -7.2 | -1.5 | 8.7 | 12.2 | 4.9 | 0.8 | 3.5 |
| Bosnia and Herzegovina ² | 3.9 | -0.3 | -0.1 | 2.3 | -0.6 | 3.4 | 4.6 |
| FYR Macedonia | 2.0 | -0.9 | -0.3 | 0.9 | 3.2 | 4.5 | 1.6 |
| Serbia | 87.7 | 8.8 | 4.6 | 9.1 | 14.2 | 13.3 | 5.9 |
| Montenegro | x | 14.5 | 4.5 | 5.8 | 2.1 | 3.6 | 8.5 |
| Ukraine | 8.7 | 3.0 | 7.6 | 20.5 | 16.7 | 9.6 | 19.5 |

Source: wiiw, national sources.

¹ Manufacturing industry.

² Federation of Bosnia and Herzegovina.

Table 6

Consumer Price Index

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|---|------|------|------|------|------|------|
| | <i>Period average, annual change in %</i> | | | | | | |
| Albania | 3.1 | 5.2 | 2.4 | 2.9 | 2.4 | 2.4 | 2.9 |
| Bosnia and Herzegovina | 3.2 | 1.3 | 1.1 | 0.8 | 3.0 | 6.2 | 1.5 |
| FYR Macedonia | 5.5 | 1.8 | 1.2 | -0.4 | 0.5 | 3.2 | 2.3 |
| Serbia | 93.3 | 16.6 | 9.9 | 11.4 | 16.2 | 11.7 | 7.0 |
| Montenegro | 21.8 | 16.0 | 6.7 | 2.4 | 2.3 | 3.0 | 4.2 |
| Ukraine | 12.0 | 0.8 | 5.2 | 9.0 | 13.5 | 9.1 | 12.8 |

Source: wiiw.

Table 7

Trade Balance

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|------------------------|-------|-------|-------|-------|-------|-------|
| | <i>% of annual GDP</i> | | | | | | |
| Albania | -25.3 | -25.9 | -23.3 | -21.7 | -22.5 | -22.9 | -26.5 |
| Bosnia and Herzegovina | -55.8 | -53.7 | -53.4 | -45.6 | -45.8 | -34.8 | -37.4 |
| FYR Macedonia | -15.3 | -21.4 | -18.3 | -21.1 | -18.4 | -20.1 | -20.9 |
| Serbia | -19.5 | -20.4 | -19.8 | -26.4 | -20.2 | -20.6 | -21.6 |
| Montenegro | -37.6 | -31.2 | -23.8 | -24.9 | -28.3 | -39.5 | -62.9 |
| Ukraine | 0.5 | 1.7 | 1.0 | 5.8 | -1.3 | -4.8 | -7.5 |

Source: wiiv.

Table 8

Current Account Balance

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|------------------------|-------|-------|-------|-------|-------|-------|
| | <i>% of annual GDP</i> | | | | | | |
| Albania | -7.0 | -9.4 | -6.9 | -5.8 | -9.0 | -6.5 | -10.5 |
| Bosnia and Herzegovina | -14.1 | -19.1 | -20.9 | -16.3 | -18.0 | -8.4 | -12.7 |
| FYR Macedonia | -6.9 | -10.0 | -4.1 | -8.4 | -2.6 | -0.9 | -3.1 |
| Serbia | 2.4 | -4.1 | -7.5 | -13.4 | -8.4 | -9.8 | -12.9 |
| Montenegro | -15.1 | -12.0 | -6.8 | -7.2 | -8.5 | -24.7 | -41.6 |
| Ukraine | 3.7 | 7.5 | 5.8 | 10.6 | 2.9 | -1.5 | -4.2 |

Source: wiiv.

Table 9

Net FDI Inflows

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|------------------------|------|------|------|------|------|------|
| | <i>% of annual GDP</i> | | | | | | |
| Albania | 5.1 | 3.0 | 3.1 | 4.5 | 3.2 | 3.5 | 5.9 |
| Bosnia and Herzegovina | 2.2 | 4.3 | 4.9 | 7.0 | 5.5 | 5.8 | 13.3 |
| FYR Macedonia | 13.0 | 2.8 | 2.4 | 6.0 | 1.6 | 6.8 | 4.3 |
| Serbia | 1.4 | 3.0 | 6.7 | 3.9 | 5.9 | 14.0 | 5.4 |
| Montenegro | 0.8 | 6.6 | 2.6 | 3.0 | 21.0 | 21.7 | 21.7 |
| Ukraine | 2.0 | 1.6 | 2.8 | 2.6 | 8.7 | 5.3 | 6.5 |

Source: wiiv.

Table 10

Reserve Assets Excluding Gold

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|---------------------------------------|------|------|------|------|------|------|
| | <i>End of period, % of annual GDP</i> | | | | | | |
| Albania | 18.3 | 16.7 | 15.6 | 16.7 | 17.9 | 18.4 | 17.8 |
| Bosnia and Herzegovina | 23.4 | 19.4 | 20.8 | 22.0 | 25.0 | 28.5 | 31.0 |
| FYR Macedonia | 22.0 | 17.3 | 16.7 | 15.1 | 22.0 | 25.8 | 25.0 |
| Serbia | 8.6 | 12.4 | 15.1 | 15.3 | 22.6 | 36.5 | 31.7 |
| Montenegro | x | x | x | x | x | x | x |
| Ukraine | 7.9 | 9.1 | 12.1 | 13.4 | 23.2 | 19.3 | 21.0 |

Source: wiiv.

Table 11

Gross External Debt

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-------------------------------------|---------------------------------------|------|------|------|------|------|------|
| | <i>End of period, % of annual GDP</i> | | | | | | |
| Albania | 28.9 | 25.3 | 22.0 | 20.8 | 20.9 | 20.0 | 18.2 |
| Bosnia and Herzegovina ¹ | 38.1 | 33.4 | 29.9 | 25.5 | 25.6 | 21.3 | 18.3 |
| FYR Macedonia | 44.2 | 39.3 | 35.9 | 47.9 | 53.9 | 49.1 | 48.4 |
| Serbia | 95.6 | 64.1 | 60.3 | 52.5 | 62.0 | 61.4 | 59.9 |
| Montenegro | x | 65.7 | 30.6 | 29.3 | 28.3 | 23.5 | 19.1 |
| Ukraine | 32.5 | 27.3 | 42.9 | 43.1 | 48.5 | 48.2 | 55.8 |

Source: *wiiw*.¹ Gross external public debt.

Table 12

General Government Balance

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|-----------------|------|------|------|------|------|------|
| | <i>% of GDP</i> | | | | | | |
| Albania | -6.9 | -6.1 | -4.9 | -5.1 | -3.5 | -3.3 | -3.5 |
| Bosnia and Herzegovina | -3.3 | -0.1 | 0.8 | 1.6 | 2.4 | 2.9 | 1.3 |
| FYR Macedonia | -6.3 | -5.0 | -1.1 | 0.0 | 0.2 | -0.6 | 0.6 |
| Serbia | -1.5 | -3.1 | -1.1 | 0.9 | 0.9 | -1.6 | -1.9 |
| Montenegro | -3.1 | -2.8 | -3.1 | -2.0 | -1.7 | 1.6 | 7.0 |
| Ukraine | -0.3 | 0.7 | -0.2 | -3.2 | -1.8 | -0.7 | -1.1 |

Source: *wiiw*.

Table 13

Gross General Government Debt

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|------------------------|------|------|------|------|------|------|
| | <i>% of annual GDP</i> | | | | | | |
| Albania | 66.6 | 65.3 | 61.7 | 56.6 | 57.4 | 55.5 | 53.8 |
| Bosnia and Herzegovina | 38.1 | 33.4 | 27.7 | 25.5 | 25.6 | 21.3 | 18.5 |
| FYR Macedonia | 51.6 | 48.7 | 45.0 | 43.8 | 48.5 | 41.5 | 29.0 |
| Serbia | x | x | 64.3 | 53.3 | 50.3 | 36.2 | 29.4 |
| Montenegro | x | 88.3 | 47.1 | 44.5 | 38.6 | 32.6 | 29.0 |
| Ukraine | 36.9 | 33.5 | 29.3 | 25.9 | 19.7 | 16.5 | .. |

Source: EBRD, European Commission.

Table 14

Broad Money

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|-----------------------------|--|------|------|------|------|------|------|
| | <i>End of period, annual nominal change in %</i> | | | | | | |
| Albania (M2) | 13.1 | 12.2 | 7.6 | 8.2 | 11.7 | 7.6 | 9.2 |
| Bosnia and Herzegovina (M2) | 31.4 | 66.7 | 4.8 | 21.0 | 17.6 | 21.6 | 25.0 |
| FYR Macedonia | 61.7 | -9.5 | 15.7 | 16.3 | 15.1 | 24.9 | 29.5 |
| Serbia (M3) | 67.6 | 73.4 | 29.1 | 31.2 | 39.1 | 37.4 | 41.1 |
| Montenegro (M21) | x | x | -0.3 | 10.6 | 58.7 | 82.9 | 71.9 |
| Ukraine | 41.9 | 41.8 | 46.5 | 32.4 | 54.3 | 34.5 | 51.7 |

Source: European Commission, wiiw.

Table 15

Official Key Interest Rate

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|---|-------------------------|-------|------|------|------|------|------|
| | <i>End of period, %</i> | | | | | | |
| Albania (refinancing base rate) | 7.0 | 8.5 | 6.5 | 5.3 | 5.0 | 5.5 | 6.3 |
| Bosnia and Herzegovina ¹ | x | x | x | x | x | x | x |
| FYR Macedonia (discount rate) | 10.70 | 10.70 | 6.50 | 6.50 | 6.50 | 6.50 | 6.50 |
| Serbia (discount rate) | 16.43 | 9.50 | 9.00 | 8.50 | 8.50 | 8.50 | 8.50 |
| Montenegro ² | x | x | x | x | x | x | x |
| Ukraine (refinancing rate) ³ | 12.50 | 7.00 | 7.00 | 9.00 | 9.50 | 8.50 | 8.00 |

Source: Eurostat, Bloomberg, wiiw, IMF.

¹ Currency board.² Unilateral euroization.³ Average.

Table 16

Exchange Rate

| | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 |
|------------------------|--|--------|--------|--------|--------|--------|--------|
| | <i>Period average, national currency per EUR</i> | | | | | | |
| Albania | 128.47 | 132.36 | 137.51 | 127.67 | 124.19 | 123.08 | 123.62 |
| Bosnia and Herzegovina | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 | 1.96 |
| FYR Macedonia | 60.91 | 60.98 | 61.26 | 61.34 | 61.30 | 61.19 | 61.18 |
| Serbia | 59.46 | 60.68 | 65.05 | 72.57 | 82.91 | 84.19 | 80.09 |
| Montenegro | x | x | x | x | x | x | x |
| Ukraine | 4.81 | 5.03 | 6.02 | 6.61 | 6.39 | 6.34 | 6.92 |

Source: wiiw, national sources, Thomson Financial.

Notes

Legend, Abbreviations and Definitions

Legend

- x = No data can be indicated for technical reasons
- .. = Data not available at the reporting date
- = The numerical value is zero or smaller than half of the unit indicated

Discrepancies may arise from rounding.

Abbreviations

| | |
|----------|---|
| BGN | Bulgarian lev |
| BIS | Bank for International Settlements |
| 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 |
| CEE | Central and Eastern Europe(an) |
| CEEI | Conference on European Economic Integration (OeNB) |
| CESEE | Central, Eastern and Southeastern Europe(an) |
| ČNB | Česka národní banka (Czech National Bank) |
| CPI | consumer price index |
| CPL | comparative price level |
| CZK | Czech koruna |
| EBRD | European Bank for Reconstruction and Development |
| ECB | European Central Bank |
| EDP | excessive deficit procedure |
| EE | emerging Europe |
| EIB | European Investment Bank |
| EME | emerging market economies |
| EMU | Economic and Monetary Union |
| ERM (II) | exchange rate mechanism (II) |
| ESA | European System of Accounts |
| ESCB | European System of Central Banks |
| EU | European Union |
| EUR | euro |
| FCC | foreign currency cash |
| FCD | foreign currency deposit |
| FCL | foreign currency loan |
| FDI | foreign direct investment |
| FEEI | Focus on European Economic Integration (OeNB) |

| | |
|--------|---|
| GDP | gross domestic product |
| GFCF | gross fixed capital formation |
| GVA | gross value added |
| HICP | Harmonised Index of Consumer Prices |
| HNB | Hrvatska narodna banka (Croatian National Bank) |
| HRK | Croatian kuna |
| HUF | Hungarian forint |
| IMF | International Monetary Fund |
| MNB | Magyar Nemzeti Bank (Hungary's central bank) |
| NBER | National Bureau of Economic Research |
| 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 |
| NCB | national central bank |
| NFA | net foreign asset |
| OECD | Organisation for Economic Co-operation and Development |
| OeNB | Oesterreichische Nationalbank |
| PLN | Polish złoty |
| PPI | producer price index |
| PPP | purchasing power parity |
| PPS | purchasing power standard |
| RON | Romanian leu |
| RPI | retail price index |
| RSD | Serbian dinar |
| RUB | Russian ruble |
| SAA | Stabilisation and Association Agreement |
| SDR | Special Drawing Right |
| SEE | Southeastern Europe(an) |
| SFR | Swiss franc |
| SIT | Slovenian tolar |
| SKK | Slovak koruna |
| SME(s) | small and medium-sized enterprise(s) |
| TCMB | Türkiye Cumhuriyet Merkez Bankası (Central Bank of the Republic of Turkey) |
| TRY | Turkish lira |
| ULC | unit labor costs |
| UN | United Nations |
| USD | U.S. dollar |
| VAR | vector autoregression |
| VAT | value-added tax |
| WIFO | Österreichisches Institut für Wirtschaftsforschung – Austrian Institute of Economic Research |
| wiiw | Wiener Institut für internationale Wirtschaftsvergleiche – The Vienna Institute for International Economic Studies |

Country Codes

| | | | |
|----|------------------------|----|------------------------|
| AL | Albania | LU | Luxembourg |
| AT | Austria | LV | Latvia |
| BA | Bosnia and Herzegovina | MD | Republic of Moldova |
| BE | Belgium | ME | Republic of Montenegro |
| BG | Bulgaria | MK | Republic of Macedonia |
| BY | Belarus | MT | Malta |
| CY | Cyprus | NL | Netherlands |
| CZ | Czech Republic | NO | Norway |
| DE | Germany | PL | Poland |
| DK | Denmark | PT | Portugal |
| EE | Estonia | RO | Romania |
| ES | Spain | RS | Republic of Serbia |
| FI | Finland | RU | Russia |
| FR | France | SE | Sweden |
| GR | Greece | SI | Slovenia |
| HR | Croatia | SK | Slovakia |
| HU | Hungary | TR | Turkey |
| IE | Ireland | UA | Ukraine |
| IT | Italy | UK | United Kingdom |
| KZ | Kazakhstan | US | U.S.A. |
| LT | Lithuania | | |

Definitions

Croatia, the Republic of 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 the Republic of 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.

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Issue 1/08

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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.

Focus on European Economic Integration

semiannual

The English-language publication Focus on European Economic Integration is the successor publication to Focus on Transition (published up to issue 2/2003). Reflecting a strategic regional research priority of the OeNB, this publication is a channel for communicating our ongoing research on Central, Eastern and Southeastern European (CESEE) countries ranging from economic country studies to studies on central banking issues and related topics. One of the purposes of publishing theoretical and empirical studies in the Focus on European Economic Integration, which are subject to an external refereeing process, is to stimulate comments and suggestions prior to possible publication in academic journals.

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 policymakers, 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 *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 highlights the interaction between human, relational, structural and innovation capital within the OeNB and reveals the influence of underlying factors. The integrated view of this stock-taking exercise serves to assess the consistency of the OeNB's intellectual capital with its knowledge-based strategic orientation.

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