

# Whither growth in central and eastern Europe?

## Policy lessons for an integrated Europe

BY TORBJÖRN BECKER, DANIEL DAIANU, ZSOLT DARVAS,  
VLADIMIR GLIGOROV, MICHAEL LANDESMANN, PAVLE PETROVIC,  
JEAN PISANI-FERRY, DARIUSZ ROSATI, ANDRÉ SAPIR  
AND BEATRICE WEDER DI MAURO

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#### **Whither growth in central and eastern Europe? Policy lessons for an integrated Europe**

Torbjörn Becker, Daniel Daianu, Zsolt Darvas, Vladimir Gligorov, Michael Landesmann, Pavle Petrovic, Jean Pisani-Ferry, Dariusz Rosati, André Sapir and Beatrice Weder Di Mauro

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**BRUEGEL**  
33, rue de la Charité, Box 4  
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# About the authors

**Torbjörn Becker** has been Director of the Stockholm Institute of Transition Economics at the Stockholm School of Economics since August 2006. He is also a board member of the Swedish International Development Cooperation Agency, chairman of the board of the Kyiv Economics Institute (Ukraine) and CenEA in Poland, and a member of the International Faculty Committee at the International School of Economics in Tbilisi. He previously worked for the International Monetary Fund for nine years. He holds a PhD in economics from the Stockholm School of Economics and has also studied at the University of California, Berkeley and Manchester Business School.

**Daniel Daianu** is a professor of economics at the National School of Political and Administrative Studies (SNSPA) in Bucharest, and chairman of the Romanian Economic Society. He is a former finance minister of Romania and former Member of the European Parliament, where he worked extensively on reform of financial market regulation and supervision. His research stints include the IMF, the Organisation for Economic Cooperation and Development and the United Nations Economic Commission for Europe. He has been a visiting professor at the University of California (Berkeley and Los Angeles). His latest book is 'Which way goes capitalism?' (2009) Budapest/New York, CEU Press.

**Zsolt Darvas** is a Research Fellow at Bruegel, a Research Fellow at the Institute of Economics of the Hungarian Academy of Sciences, and an Associate Professor at the Corvinus University of Budapest. He was previously Research Advisor to the Argenta Financial Research Group in Budapest (2005-08) and researcher and later Deputy Head of the Research Unit of the Central Bank of Hungary (1994-2005). He has had visiting researcher positions at the Bank of Finland, Deutsche Bundesbank, De Nederlandsche Bank and the Stockholm School of Economics. He is Deputy President of the Economics Committee of the Hungarian Academy of Sciences. His research interests include macroeconomics, international economics and time series analysis.

**Vladimir Gligorov** is a researcher at the Vienna Institute for International Economic Studies and a lecturer at the University of Vienna. He was previously associated with

Columbia University, Belgrade University, the Institute of Economic Sciences, Belgrade, the Center for the Study of Public Choice, George-Mason University and Uppsala University, Sweden. His publications include 'Residue: essays on the advantages of freedom' (in Serbian and English, 2010); 'Why do countries break up: the case of Yugoslavia' (forthcoming, 2010); 'Neoclassicism in the Balkans: papers on Balkan economics' (forthcoming, 2011); 'Causes, rights and choices' (forthcoming, 2011).

**Michael A Landesmann** is Scientific Director of the Vienna Institute for International Economics Studies (wiiw) and Professor of Economics and Head of the Institute for Economic Theory and Quantitative Economic Research at the Johannes Kepler University, Linz. Previously he was at the Department of Applied Economics of the University of Cambridge and was a Fellow in Economics at Jesus College, Cambridge. He holds a DPhil in economics from Oxford University. He was a member of the Economic Analysis group under the chairmanship of former European Commission President Romano Prodi. He currently (academic year 2010-11) holds the Pierre Keller Visiting Professorship at Harvard University.

**Pavle Petrovic** is a Professor of Economics at the University of Belgrade, and the editor of *Quarterly Monitor*. His main interest is in international macroeconomics. He has published in, and refereed for, international journals such as: the *Journal of Money Credit and Banking*, the *Journal of Development Economics*, the *Journal of Comparative Economics*, the *Journal of Macroeconomics*, *Cambridge Journal of Economics* and the *European Journal of Political Economy*. He was a visiting fellow at Harvard, Princeton and Cornell universities. He was previously President of the Council of the National Bank of Serbia, and assistant finance minister. He is co-founder and director of CES Mecon, a think-tank, where he has led projects on macro-stabilisation and reforms in transition.

**Jean Pisani-Ferry** is the Director of Bruegel and Professor of Economics at the Université Paris-Dauphine. He was previously Executive President of the French prime minister's Council of Economic Analysis (2001-02), Senior Economic Adviser to the French Minister of Finance (1997-2000), Director of CEPII, the French institute for international economics (1992-97) and Economic Advisor to the European Commission (1989-92). His current research focus is economic policy in Europe. He writes regular columns for *Le Monde*, *Handelsblatt* and the Chinese magazine *Caixin*.

**Dariusz K. Rosati** is a professor of international economics at Warsaw School of Economics, from which he graduated in 1969. He is a former Polish Minister of

Foreign Affairs (1995-97), and has been a Member of the European Parliament (2004-09), a member of the Monetary Policy Committee, National Bank of Poland (1998-2004), and was head of the Transition Economies Section, United Nations Economic Commission for Europe (1991-95). He has also worked with Citibank in New York and was a Fulbright Scholar at Princeton. He has published extensively, including books on international trade and finance, European integration, economic policy and reforms in transition countries.

**André Sapir** is a Senior Fellow at Bruegel and Professor of Economics at the Université Libre de Bruxelles (ULB), where he teaches international trade and European integration at the Solvay Brussels School of Economics and Management and at the Institute of European Studies. From 2005-09, he was member of the Economic Advisory Group to European Commission President José Manuel Barroso. Previously, he worked for 12 years for the European Commission, first serving as Economic Advisor to the Director-General for Economic and Financial Affairs, then as Economic Advisor to President Romano Prodi. He has published extensively on European integration, international trade and globalisation.

**Beatrice Weder di Mauro** received her doctorate in economics from the University of Basel in 1991. Prior to joining the faculty of Johannes-Gutenberg University in 2001 she was an economist at the IMF. She has held visiting appointments at Harvard University, the National Bureau of Economic Research, the World Bank and the United Nations University in Tokyo. She serves as a consultant, *inter alia* for the Swiss and Austrian governments. She is a fellow at the Centre for Economic Policy Research (CEPR) and a member of the German Council of Economic Experts. Her current research focuses on the analysis of financial crises, international capital flows, bank governance and growth.



# Foreword

Countries in central, eastern and south-eastern Europe (CESEE), both inside and outside the European Union, have been hit hard by the crisis. This came as a surprise to most of us. Admittedly some countries were visibly heading for trouble, but economic forecasts made just a few months before the collapse of Lehman Brothers in September 2008 still foresaw a bright future for the region as a whole and currencies of floating exchange-rate regime countries skyrocketed in the summer of 2008. And while previous emerging markets crises were dominated by Asian and Latin American countries, European integration was thought to shield the CESEE region.

Actually European integration was thought to do more: to foster rapid and steady catching-up through a globally unique combination of institutional anchoring, trade integration and capital-markets integration. What could be termed the European 'integration model of growth' extended beyond the EU borders to neighbouring countries, especially to the EU candidate and potential candidate countries in the Balkans. It was widely hailed a success story.

But the recent global crisis, which primarily originated in the western world, hit emerging countries differently. Emerging Asia and Latin America were hit only temporarily, starting to rebound as soon as world trade recovered from collapse. The opposite has happened in CESEE countries. Even though the complete regional meltdown of the CESEE region that many analysts foresaw in late 2008 and early 2009 has not happened, the region has in general been hit hard and the recovery so far has not been remarkable, though there are significant differences between countries.

These different developments in the CESEE countries raise questions about their pre-crisis development model, which was to a large extent based on integration with western Europe. Can and should their integration model of growth be revived? Should it be repaired or reformed? And if so, what are the required changes?

Bruegel and wiiw cooperated to form an expert group of economists from various European countries to answer these questions. This volume is our summary report. It

results from a number of meetings in Brussels and Vienna and from extensive email exchanges, not always consensual. Yet we all agree about the main conclusion of this report: in view of the depth of integration in Europe, the development model of the CESEE region, despite its shortcomings, should be preserved. But it should be reformed, with major implications for policymaking both at national and EU levels.

The report has benefited from comments from Mario Nuti and Karsten Staehr at a seminar in Vienna in July 2010 organised by the Austrian Ministry of Finance. Maite de Sola, Juan Ignacio Aldasoro and Lucia Granelli from Bruegel, and Beate Muck and Monika Schwarzappel from wiiw provided essential research and statistical assistance, for which we are thankful. Bruegel gratefully acknowledges the financial support of the German Marshall Fund of the United States to research underpinning this report. wiiw thanks the Austrian Ministry of Finance for financial support for this report.

Last but not least, we would like to thank Zsolt Darvas from Bruegel and Vladimir Gligorov from wiiw for significant personal input and relentless activism in the preparation of this report. Without them the report would not have seen the light of day.

*Michael A. Landesmann  
Scientific Director, wiiw*

*Jean Pisani-Ferry  
Director, Bruegel*

# Executive summary

This report examines the impact of the economic crisis on the countries of central and eastern Europe (CESEE) and draws out the main policy lessons. Until the crisis hit, CESEE countries had been pursuing a distinctive model of growth and catch-up through integration with the European Union, although not all countries had achieved the same level of integration with the EU. The crisis was a major challenge for the policies pursued in many CESEE countries, and the region was hit by the crisis much harder than other parts of the emerging world, and is also recovering more slowly.

In chapter 1, we compare the pre-crisis development model of the central, eastern and south-eastern Europe (CESEE) region with similar countries in Asia and Latin America and study the impact of the crisis. We highlight that the CESEE growth model was fundamentally different from models in other emerging country regions, but also that it had two variants. The first, which characterised most central European countries, was by and large appropriate and sustainable. But there is a second group of CESEE countries (we call it the Baltic-Balkan group) in which the same overall growth model led to widespread misallocation of resources and unsustainable growth trajectories. These countries are undergoing a much more painful recovery from the crisis.

In chapter 2 we scrutinise more closely the growth model of the region. We study the short-run challenges and the medium- to longer-run issues, focusing on behavioural adjustments occurring within the countries of the region in the wake of the crisis and on changes in the external environment. We discuss policy issues to make the re-oriented growth model sustainable and successful.

Chapters 3, 4 and 5 examine three key policy areas: exchange-rate policy, financial stability and fiscal sustainability. We identify a strong role for exchange-rate policy both in the unsustainable pre-crisis developments of a number of countries and in their dramatic response to the crisis. However, concerning the other two main policy areas, it is true more generally that even more conservative domestic financial regulation and supervision and fiscal policy could not have crisis-proofed those CESEE countries which, even before the crisis, had double-digit current-account deficits.

Looking forward, improving supply side conditions and competitiveness will be a key challenge for most countries in the region. Massive cross-border holdings in CESEE banks pose significant challenges to financial regulation and we highlight a large number of unresolved issues, while for fiscal sustainability we are cautiously optimistic, but certainly more optimistic than most analysts who call for overly strict, and hence pro-cyclical, fiscal policy.

In our concluding chapter 6, we raise policy issues for the CESEE countries and the EU. The general conclusion is that the benefits of EU integration for countries that are catching up are conditional on the quality of national policies and of the EU framework itself. In both respects we point out past failings and suggest strategic improvements. Reorienting the growth model in those countries that entered a shunt-line before the crisis will be hard because of their legacies, but that there is no other path to follow in order to make the EU's eastern enlargement a lasting economic success story.

# 1. Context and stylised facts

## 1.1 Introduction

The global financial and economic crisis has hit most countries of central, eastern and south-eastern Europe (CESEE) harder than other countries in the world, and post-crisis recovery is also generally slower for CESEE countries than in other emerging economies. This raises questions about the pre-crisis development model of the region, which was a unique model that resulted in rapid economic growth.

Before the crisis, CESEE countries seemed to be catching up with their western European counterparts rapidly and smoothly, following an extraordinarily deep recession after the collapse of CESEE communist regimes, as shown by Figure 1.1 on the next page. Most countries had entirely regained their initial pre-transition relative income levels in comparison to the EU15, and others were en route to this goal<sup>1</sup>.

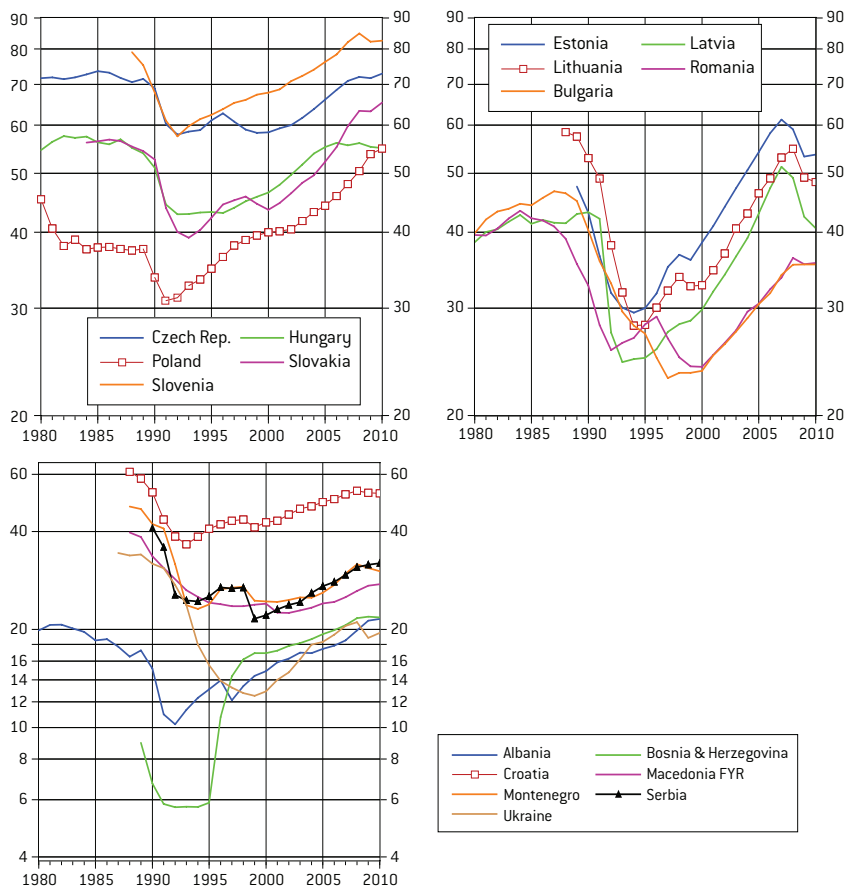
The main focus of the development model of CESEE countries was EU integration. The vision of EU integration and EU accession talks drove reform and still provide institutional, legal and behavioural anchors for those CESEE countries that are not yet EU members. As a consequence of this integration process, all CESEE countries have achieved deep financial and trade integration with the EU, and have experienced significant labour mobility to EU15 countries. Within this common framework, however, there are substantial differences between CESEE countries. In a few, catching-up was supported by a strong manufacturing sector and was accompanied by macroeconomic stability. But many countries became increasingly vulnerable before the crisis. In particular they experienced huge credit, housing and consumption booms, and thus high current-account deficits and external-debt levels.

Pre-crisis, it was widely believed that these vulnerabilities would have to be corrected at some point, but the correction experienced during the crisis was much faster and deeper than expected. Indeed, the decline in output was greater than in other

---

1. Note that data quality for the pre-transition period is questionable.

Figure 1.1: GDP per capita at purchasing power parity (EU15=100), 1980-2010



Source: authors' calculation based on data from IMF World Economic Outlook April 2010 and EBRD. Note: the scale of the third panel is different from the scale of the first two panels.

regions, which surprised many analysts. The magnitude of the revision was exceptionally high in the Baltic countries, where output in 2010 is set to be 30 or 40 percent lower than the level forecast in late 2007. But with the notable exception of Poland, those CESEE countries that had maintained pre-crisis macroeconomic stability have also suffered substantial output declines.

Beyond the current shock, will the crisis have lasting economic effects on the region? Several questions loom large:

- Should the region's pre-crisis growth and development model be fundamentally reconsidered?
- What should national authorities and the EU change in order to help the region embark on a renewed process of economic catching-up?
- What are the policy implications for exchange-rate policies, fiscal policies, and financial regulation?

These and related questions form the core of this volume. However, answering these questions requires an understanding of the major factors that contributed to convergence in the pre-crisis period, including the main policies pursued in CESEE countries, and an understanding of the impact of the crisis on the region. We therefore first discuss these issues by presenting stylised facts about the CESEE region's development model, and the impact of the crisis.

## 1.2 Pre-crisis stylised facts

### 1.2.1 *The core of the development model: deep integration with the EU*

CESEE countries have pursued a distinctive model of development since the collapse of communist regimes. Their approach has been based on integration with the EU (European Commission, 2009b), including political integration, institutional development, trade integration, financial integration and labour mobility<sup>2</sup>. While these factors were also present to various extents in EU15 countries, it must be emphasised that most CESEE countries have reached very high levels of integration. In particular:

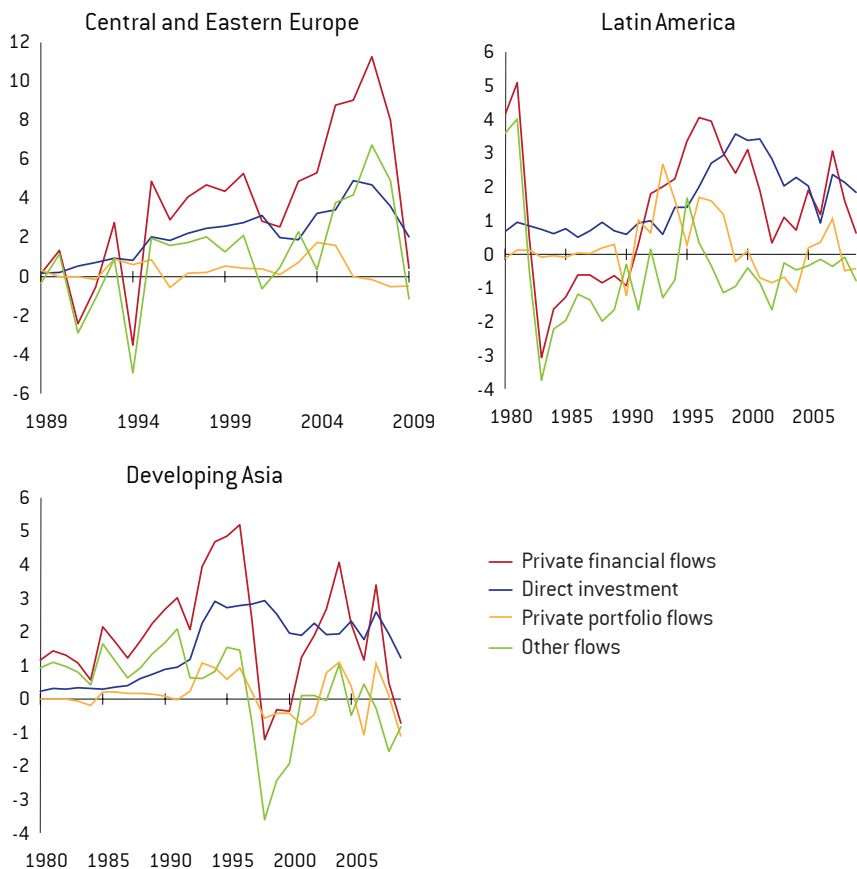
- There were huge net capital inflows before the crisis (Figure 1.2), larger than in any other emerging or developing region;
- Most (in some countries all) of the banking systems were bought up by western European banking groups; this is a unique feature of CESEE economies;
- Gross external assets and liabilities have increased rapidly, though they have on average remained below levels observed in the EU15 (Figure 1.3);
- The ratio of foreign trade to GDP increased quickly and became, in general, much higher in CESEE countries than in EU15 countries and other emerging/developing country regions (Figure 1.3)<sup>3</sup>.

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2. It has to be emphasised that political integration with the EU set an unambiguous path to trade and financial integration, while restrictions on labour mobility were applied temporarily. In particular, the complete opening of the capital account was to be achieved by the time of joining the EU and comprehensive financial integration could not be questioned by new EU member states or by candidate countries currently under negotiations.

3. In emerging countries the lower price of non-tradables inflate the share of tradables in GDP. Hence, a higher share

Figure 1.2: Net private financial flows in the main emerging country regions (% GDP), 1980-2009

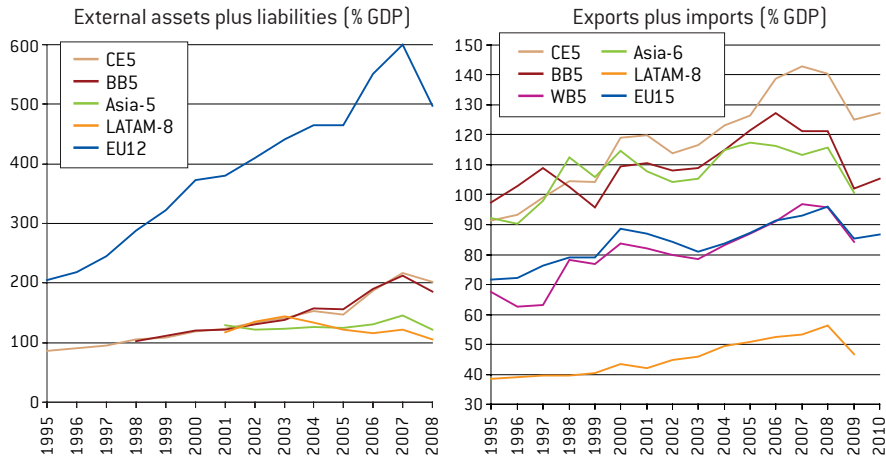


Source: IMF World Economic Outlook April 2010.

Note: Other flows mainly refers to cross-border loans. Country groups are according to the IMF classification; due to the lack of sufficient country-specific data, we could not calculate the series shown for our country groups. According to the IMF classification, the central and eastern Europe group is made up of 14 countries (it includes Turkey, which we do not include, but it does not include the Czech Republic, Slovakia, Slovenia and Ukraine). The IMF's Latin America group includes 32 countries, while the IMF's Developing Asia group includes 26 countries.



Figure 1.3: Openness to trade and finance, 1995-2010



Source: Authors' calculation using data from IMF and UNCTAD.

Note: External assets and liabilities are not available for the full period for Greece, Ireland and Luxembourg and therefore the right-hand panel shows the average for the other 12 EU15 countries. Data is generally not available for western Balkan countries.

### 1.2.2 Capital inflows: larger than anywhere else in the world

Figure 1.2 shows that net private-capital inflows reached about 11 percent of the GDP of the whole CESEE region by 2007. No other region in the world has experienced such a massive inflow of capital in any year during the past three decades. Another, and related, distinctive feature of the CESEE region's development model is current account imbalances (Figure 1.4), though there are significant differences within the region. The deficit remained broadly stable at around 4-5 percent of GDP for the CE5, but increased to around 15 percent of GDP on average for the BB5 and WB6 (see Box 1.1 for our country groupings).

Asia and Latin America were different: after the dramatic crises of the 1990s and around the turn of the millennium, most Asian and Latin American countries (not just our Asia-6 and Latam-8 groups) fundamentally changed their development strategies. From being net capital importers, they – especially in Asia – became balanced,

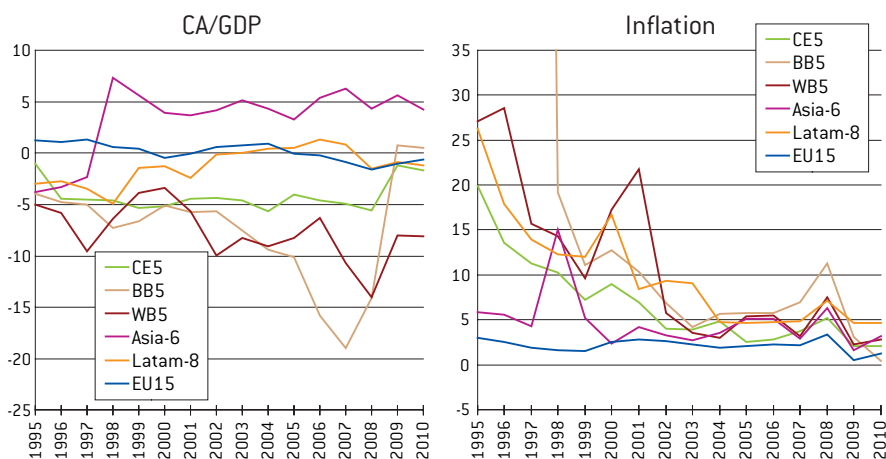
of tradables to GDP in emerging countries does not necessarily imply higher openness, but certainly implies higher dependency on foreign trade.

or even substantial capital exporters<sup>4</sup>. Net private capital inflows (Figure 1.3) combined with current accounts close to balance (Latin America; see Figure 1.4) or in significant surplus (Asia), led these economies to accumulate foreign-exchange reserves, especially in US dollars. Indeed, the accumulation of foreign-exchange reserves was a key policy objective of Asian countries in the aftermath of the 1997 crisis.

Capital flows into the CESEE took the form of FDI (including the buying-up of swathes of the CESEE banking system), portfolio investments and loans. Figure 1.2 illustrates the gradual and substantial increase (even as a share of the region's GDP) of net FDI inflows. On average, FDI inflows to the CESEE region increased from practically zero in 1989 to about five percent of GDP by 2006/2007. The value reached by 2006/2007 was higher than flows to Latin America and developing Asia in every year in the past three decades.

While the inflow of FDI was a key driver of economic growth in the CESEE region<sup>5</sup>, the composition of FDI was not always favourable. In particular, the share of manufacturing, the key sector for developing export potential, was significant only in CE5, but

Figure 1.4: Macroeconomic balances: current account and inflation (%), 1995-2010



Source: Authors' calculations using data from IMF World Economic Outlook April 2010.

4. See, for example, Abiad, Leigh and Mody (2009).

5. See, for example, the econometric estimates in Darvas (2010c) and EBRD (2009) that support this claim.

### BOX 1.1: THE COUNTRY GROUPS

While CESEE countries pursued development models with common features, it is instructive to differentiate certain country groups to facilitate comparison of the CESEE region with other regions. There are many different ways to define groups within the region. We categorise countries based on EU membership on the one hand (because EU and non-EU countries have rather different policy constraints) and sustainability of their external balances on the other hand (because two highly distinctive features can be observed within the region). Interestingly, countries with similar features are also geographically close to each other.

We therefore divide CESEE countries into three groups (abbreviations used in the figures are in brackets):

- 1 Central European EU members (CE5): Czech Republic, Hungary<sup>6</sup>, Poland, Slovakia and Slovenia – the trade balance was stable or improving in these countries;
- 2 Baltic and Balkan EU members (BB5): Bulgaria, Estonia, Latvia, Lithuania and Romania – the trade balance was almost continuously worsening before the crisis in these countries;
- 3 Western Balkan EU candidate countries (WB6): Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Montenegro and Serbia – the trade balance was also deteriorating before the crisis in these countries. Kosovo (under UNSC Resolution 1244/99) is also a western Balkan country, but we do not include it in our study due to lack of data.
- 4 We also include Ukraine in our study, though we do not group it with other countries. Ukraine is a European Commonwealth of Independent States (CIS) country that from time to time has expressed the ambition of joining the EU, and the EU considers Ukraine a priority partner country within the European Neighbourhood Policy. Ukraine's EU links have played an important role in reforms in Ukraine, which has also built strong economic links with the EU.

We shall compare the three main CESEE groups to other relevant country groups:

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6. While Hungary belongs to this group of countries regarding its trade balance during the 2000s, it accumulated (partly due to the already high starting position) a large external debt (of which, however, a significant part constitutes inter-company loans related to FDI and loans from western European parent banks to their subsidiaries and branches; see Figure 4.1).

- 1 EU15: the 15 members of the EU before 2004, though we have excluded Luxembourg from the average due to its very small size and specialised economy. The EU15 serves as a natural benchmark, as this is the group that CESEE countries aspire to catch up with.
- 2 Asia-6: Indonesia, Korea, Malaysia, Philippines, Taiwan and Thailand;
- 3 Latin America 8 (Latam-8): Argentina, Brazil, Chile, Columbia, Ecuador, Mexico, Peru and Uruguay.

Note, with the Asian and Latin American groups above we have selected countries that have reasonably liberalised and well-functioning market economies, broadly similar income levels, and of a size comparable to CESEE countries

With the exception of Figure 1.2, which was taken from the IMF, we always use simple arithmetic averages, as our main goal is to compare 'models' of growth within certain geographic regions and not to compare regional developments to each other. This means, of course, that, for example, Estonia is treated the same as Romania, or Ireland is treated the same as Germany.

insignificant in other CESEE countries. We will enlarge on this in the next chapter.

Other investment flows (mostly constituting cross-border loans) were more volatile, but in the peak years before the crisis their magnitude even exceeded FDI inflows. Again, inflows of other capital to CESEE countries have exceeded corresponding inflows to Asia and Latin America for every year in each of the past three decades. As a consequence, total inflows to central and eastern Europe were exceptionally high before the recent crisis.

Capital export from poorer to richer countries is sometimes referred to as capital moving 'uphill'. The CESEE region was different: capital moved 'downhill', mostly from rich EU15 countries to poorer CESEE countries. The supply-side factors behind this were good economic growth prospects and the low level of physical capital, the prospect of eventual EU integration and the related improvement in the business climate, the generally highly educated labour force and low level of wages, and the low level of domestic credit offering the potential for substantial credit expansion. Capital inflows indeed exploited the economic growth potential of these countries and total factor productivity (TFP) increased rapidly before the crisis.

### 1.2.3 Credit growth: the main source of vulnerabilities

Credit expansion was a crucial driver of economic growth in CESEE countries, but also a key factor in their vulnerability. Financial crises are often preceded by rapid credit growth in the private sector, and related strong real effective exchange-rate appreciation and large current-account deficits. This was the case in Finland and Sweden before the 1992 crisis, and in several east Asian countries (Malaysia, Thailand) before the 1997 crisis (World Bank, 2007).

Indeed, parallel with foreign investment in the financial sector and inflows of other capital, credit to the private sector increased rapidly before the crisis in the CESEE region (Figure 1.5), but with substantial differences across countries. In the CE5 group, the evolution of the credit-to-GDP ratio was markedly less steep than in the BB5<sup>7</sup>. To the extent that foreign investment in real estate and financial services contributed to the huge pre-crisis housing booms and excessive credit booms, one cannot exclude the possibility of a misallocation of FDI.

The pre-crisis credit growth process in the region has been extensively studied in the literature (see eg, Darvas and Szapáry (2008) for a survey and assessment). Both demand and supply factors contributed to pre-crisis credit expansion. The demand for credit was fuelled by the sharp decline in real interest rates (see the right panel of Figure 1.6), which resulted from nominal interest-rate convergence and higher inflation owing partly to the Balassa-Samuelson effect and partly to the economies being overheated. This low borrowing cost environment was compounded in several countries by the use of foreign currency. Low real interest, however, cannot be the only factor for rapid credit growth because in Asian countries real interest rates were quite low and credit growth was modest there. In CESEE countries, the initial low level of credit (in contrast to Asia, for example, see the left panel of Figure 1.5) and of indebtedness, combined with rapid output growth, the rise in income expectations and high levels of confidence that were boosted by prospective and eventual EU entry, also led economic agents to be more willing to take on debt.

On the supply side, the post-privatisation development of the banking sector and the predominance of foreign banks increased the lending capacity of banks. Whenever domestic credit booms were financed from external borrowing, the supply of foreign

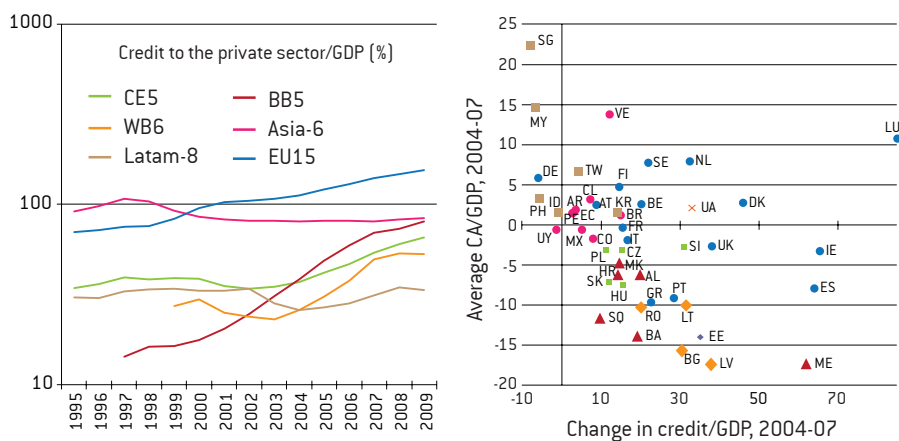
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7. The most extreme case was Latvia, in which credit to the private sector stood at 16 per cent of GDP in 1999 and rose to almost 100 per cent before the crisis in parallel with a very rapid increase in GDP. The further rise in the credit-to-GDP ratio in 2009 compared to 2008 is the result of a four percent drop in credit outstanding and a 20 percent drop in nominal GDP.

currency loans increased, because CESEE countries generally cannot borrow from abroad in their domestic currencies. At the same time, increasing competition between banks to expand their activity in the household sector once the corporate sector was saturated, together with the narrowing of margins due to the fall in interest rates, provided strong incentives for banks to lend to households, primarily in the form of mortgage lending, in order to maintain profitability.

While the level of credit as a percentage of GDP remained well below the EU15 average even at the peak of the pre-crisis credit boom (Figure 1.5) and several empirical studies suggested that the *level* of credit was below equilibrium<sup>8</sup>, the *speed* at which the equilibrium level of credit is reached matters for macroeconomic stability. From the perspective of inflationary pressure, it is not the level but the rate of growth of credit that matters. Rapid credit growth can fuel consumption, can lead to sharp rises in house prices<sup>9</sup>, can feed inflation and wage growth, which can erode competitiveness, and can contribute to current-account deficits and the build-up of external debt.

**Figure 1.5: Credit to the private sector (% GDP, 1995-2009) and the relationship between pre-crisis credit growth and current account balances**



Source: Authors' calculation based on IMF International Financial Statistics (credit) and April 2010 World Economic Outlook (current account balance and GDP). Note: See the explanation of the two-digit country codes in the appendix at the end of this volume.

8. See, for example, Schadler *et al* (2005), Kiss *et al* (2006), Égert *et al* (2007) and World Bank (2007). These studies typically found that the level of credit was either below or approached the estimated equilibrium level in CESEE.

9. Égert and Mihajek (2007) report real house price increases of between 20 and 30 percent per year in Estonia and Lithuania during 2000-2006. Housing price bubbles might further boost credit expansion by increasing the

The right panel of Figure 1.5 clearly indicates a close relationship between pre-crisis credit growth and the current-account balance. When the counterpart of indebtedness is consumption and housing loans, it means that resources are diverted away from investment in the tradable sector, which is bound to negatively affect competitiveness and growth down the road. Furthermore, since higher inflation occurs essentially in the non-tradable sector, the lowest real interest rates will prevail in that sector, channelling resources away from the tradable sector. Thereby rapid credit growth can itself further exaggerate the misallocation of capital<sup>10</sup>.

The right panel of Figure 1.4 shows that the downward trend in inflation reversed especially in the BB5 countries (well beyond the impact of the rise in food and commodity prices in the few years before the crisis), and these countries also experienced marked increases in unit labour costs (ULC), that is, wages increased much faster than productivity during the boom years. This implies that these countries have lost competitiveness.

#### *1.2.4 Real exchange rates and real interest rates*

In order to document real exchange-rate movements and to provide an assessment of competitiveness, the left panel of Figure 1.6 shows the relative price level of GDP compared to a weighted average of 22 industrialised countries<sup>11</sup>. The relative price level is proportional to the GDP deflator-based real effective exchange-rate index, but has the advantage that it has a natural unit of measurement. The relative price level is related to the relative GDP per capita and therefore we have plotted these two variables against each other.

The CE5 group shows a unique pattern of economic catching-up and real appreciation, as the two indicators have gone broadly hand in hand. Real appreciation started to speed up in 2008, when average annual real appreciation would have been even higher without the sharp depreciation that was experienced after the collapse of Lehman Brothers in September. The recent appreciation that took place since mid-2009 has not reached excessive levels so far, though there are obviously differences

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value of collateral and banks may be willing to lend to less creditworthy customers, exposing the banks to heavy losses when the bubbles burst.

10. Similar phenomena were observed in fast growing euro-area countries, see eg Ahearne and Pisani-Ferry (2006) and Ahearne, Delgado and von Weizsäcker (2008).

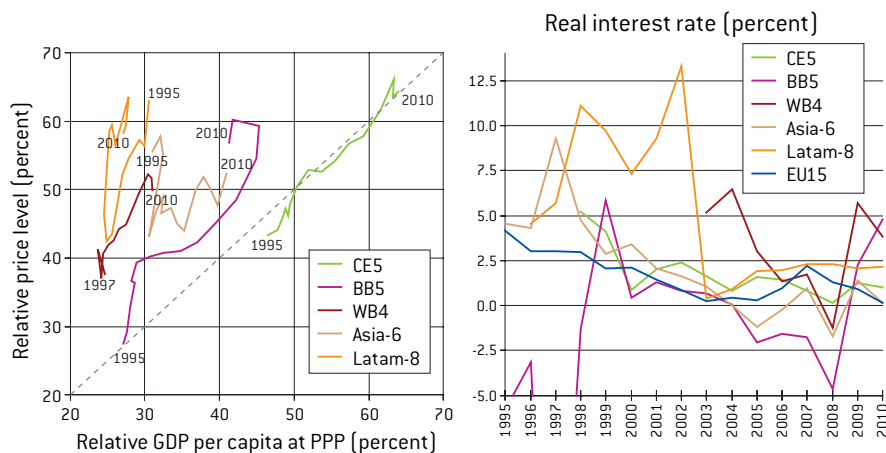
11. We have used all the 22 industrialised countries (as defined by the IMF), since the trade structures of countries in different regions of the world differ and hence it would not have been appropriate to relate the price level only to the EU15. We have deliberately not considered all trading partners, but only industrialised countries with which emerging countries aim to converge.

between the five countries included in this group, since Slovakia and Slovenia are now members of the euro area and nominal appreciation has characterised only the other three countries in more recent periods.

In the BB5 and WB6 groups, however, very rapid real appreciation occurred during the 2000s that far outpaced the expansion of GDP per capita. Hence, in the aftermath of the crisis the relative price level in these countries has grown much more quickly than their relative per-capita GDP, suggesting that they have ended up in a weak competitive position – at least compared to the CE5 group.

The left panel of Figure 1.6 also offers an interesting comparison between CESEE countries and the Asia-6 and Latam-8 groups. In Asia, real exchange rates fell after the 1997 crisis and were typically kept at depreciated levels despite rapid economic catching-up. The current account surpluses are indeed consistent with depreciated exchange rates. As GDP growth was broadly similar in CESEE countries and in the

Figure 1.6: Real exchange rates and real interest rates, 1995-2010



Source: Authors' calculation using data from the IMF and Economist Intelligence Unit.

Note: The relative price level (=real exchange rate) is plotted against relative GDP per capita and both variables are measured as a percent of the weighted average of 22 industrialised countries using country-specific weights derived from foreign trade. Real interest rate was calculated on the basis of 3-month nominal interest rates (money market or treasury bill) and consumer price inflation. 2010 values were calculated the following way: forecast for GDP per capita, PPP exchange rate and inflation are from the IMF April 2010 WEO; nominal interest rate is from the March 2010 EIU forecast; nominal exchange rate is actual data from 1 January till 18 June 2010 and the 18 June 2010 values are assumed to be unchanged for the rest of the year.



Asia-6 group, the Balassa-Samuelson effect itself does not explain these differences. In Latin America, the crises of the late 1990s and early 2000s led to substantial variations in the relative price level, and GDP per capita convergence was negligible.

Consequently, real exchange-rate appreciation during the catching-up process is another distinctive feature of the CESEE region's development model. But once again there is substantial variation within the region regarding the speed and the level of real appreciation: the process seems to be sustainable in the CE5 group, but looks excessive in the BB5 and WB6 groups.

The right panel of Figure 1.6 shows short-term money-market real interest-rate developments. As mentioned, nominal interest-rate convergence and higher inflation pushed down real interest rates in CESEE countries, with, again, variation between country groups: in CE5 countries the real interest rate has not declined to negative territory, while in BB5 and some WB6 countries it has. Low real interest rates also characterised Asia-6, but in Latam-8 real interest rates remained much higher.

### 1.2.5 *The role of policies*

The stylised facts described so far illustrate the distinctive features of the pre-crisis development model of CESEE countries. Key common features of the model were strong productivity growth, deep financial and trade integration, sizeable net capital inflows (and corresponding current-account deficits), rapid domestic credit expansion, significant real exchange-rate appreciation, and low real interest rates. But while these features characterise all countries, those in the CE5 group had broadly sustainable developments, while the BB5 and WB6 countries recorded extreme credit growth, excessive real exchange-rate appreciation and a sharp fall in real interest rates.

European integration has certainly contributed to all of these developments, but, as country performances differed within the CESEE region, a key question is whether policies in those countries, such as exchange-rate and monetary policy, domestic financial-market regulation and fiscal policy, have played a role.

First, *exchange-rate regimes* have certainly played a role. Prior to the crisis CE5 countries maintained more or less flexible exchange rates (with the notable exceptions of Slovenia and, only since mid-2008, Slovakia), while most BB5 and WB6 countries opted for fixed rates or intensive exchange-rate management (with the notable exceptions of Albania, Romania and Serbia). A fixed exchange-rate regime fuels

inflation in an economy that is catching-up. When a country is catching-up in terms of GDP per capita (as was the case in all CESEE before the crisis), its price level also increases. When the exchange rate is fixed, the price-level increase translates into higher inflation. High inflation and the credible exchange-rate peg lead to low real interest rates and also encourages borrowing in foreign currency. The vicious circle of credit growth, house-price increases, excess demand, inflation, and low real interest rates, led to unsustainable booms in several countries.

By contrast, in countries with a floating exchange rate, the structural price-level convergence can also be accommodated by nominal exchange-rate appreciation. This happened in the Czech Republic, in Poland and (before fixing the conversion rate of the Slovak koruna to the euro in the summer of 2008) in Slovakia. While the difficulties of managing the convergence process under inflation targeting with floating exchange rates should not be underestimated, it must be recognised that ‘floaters’ succeeded better than ‘fixers’ on the whole in maintaining macroeconomic stability<sup>12</sup>.

Second, the role played by *domestic financial regulation and supervision* has been significant, but has involved delicate trade-offs. Several CESEE countries applied administrative and regulatory measures even before the crisis to slow down the growth of credit and to limit unhedged foreign-currency loans. The World Bank (2007) provides a list of the measures introduced. Administrative measures included limits on the growth of foreign-currency loans or on the ratio of such loans to the banks’ own capital. Regulatory measures typically aimed to increase the cost of borrowing by imposing tighter rules on foreign-currency loans. These may include special reserve requirements and lower interest rates paid on those reserves, tighter provisioning and asset-qualification rules, stricter non-price requirements (eg higher down payments, additional collateral), higher capital requirements or other measures applied to foreign-currency borrowings.

The problem with such measures is that if they are maintained for a long time they distort markets and weaken competition. Furthermore, they can be evaded by switching from domestic to direct borrowing from abroad, a technique made easier in countries where foreign-owned banks play a dominant role. Administrative controls can also lead to a redirecting of financing from bank to non-bank channels, such as leasing, and they can encourage foreign banks to switch from subsidiaries to branches, a channel less supervised by the local authorities. On the whole, the effectiveness

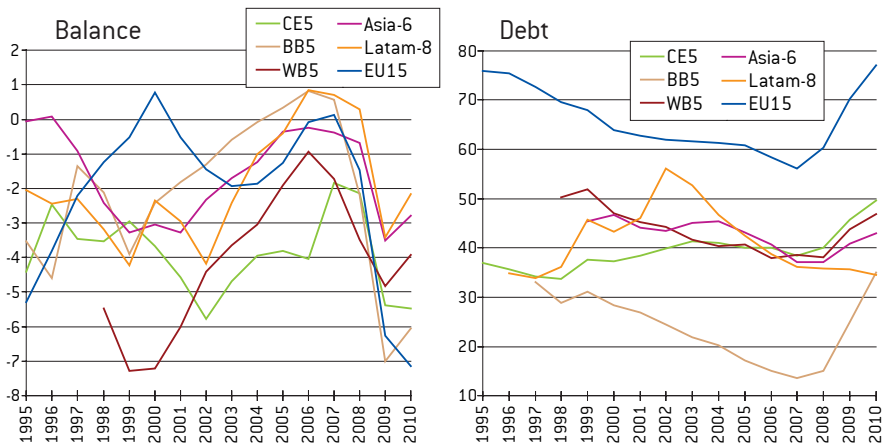
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12. See Darvas and Szapáry (2008) for a detailed analysis of issues related to price-level convergence in the context of euro adoption.

of such measures is questionable in the long run and can best serve as a short-term expedient to slow excessive credit expansion when the economy overheats. Therefore, both the unfavourable experiences of those countries that applied regulatory measures, such as Estonia and Croatia, and the principal problems discussed suggest that domestic financial regulation and supervision alone may have not been the major cause of the huge credit booms.

Third, *fiscal policies* were by and large as adequate as they realistically could be, but there were a few important exceptions. Hungary was the key outlier by running very large budget deficits after 2001, but the Czech Republic, Poland and Slovakia also ran large conventional budget deficits in the early 2000s. However, since initial government debt levels were reasonably low, even a 10 percentage-points of GDP average rise in the early 2000s has not resulted in a worrisome level of government debt (Figure 1.7). And credit growth was generally modest in CE5 economies, so there was no need for a strong fiscal policy reaction.

Figure 1.7: General government balance and gross debt (% of GDP), 1995-2010



Source: IMF World Economic Outlook October 2009.

In the BB5 countries, where credit growth had reached very high levels, budget deficits were gradually eliminated and the debt-to-GDP ratio declined steadily<sup>13</sup>. Although fiscal policy was pro-cyclical in many CESEE countries (Darvas, 2010a) and tax instruments were not used to dampen the boom (eg taxing property or credit), fiscal policy was not the main culprit behind the build-up of vulnerabilities. In any case, fiscal policy could counterbalance neither the strongly expansionary effect of credit growth nor the savings shortfall corresponding to current-account deficits amounting to 10-25 percent of GDP, which were prevalent in BB5 and WB6 countries. Simply put, fiscal policy was unable to counterbalance private-sector excess.

### 1.3 The impact of the crisis

Until the third quarter of 2008, ie until the collapse of Lehman Brothers, no CESEE countries were hit by the crisis (Figure 1.8). In Estonia and Latvia, GDP already started to fall in the first quarter of 2008, but this was mainly due to domestic reasons: the bursting of the housing bubble and a reversal of the previously unsustainable credit boom.

The disruption of financial markets after the collapse of Lehman Brothers, the rapid collapse in global trade and the bearish market sentiment, sent most of the world's economies into a slide. The CESEE region was particularly hard hit: in fact it was the hardest hit (along with former Soviet countries). The economic outlook was revised downward many times (Darvas, 2009b) and GDP fell substantially in several CESEE countries.

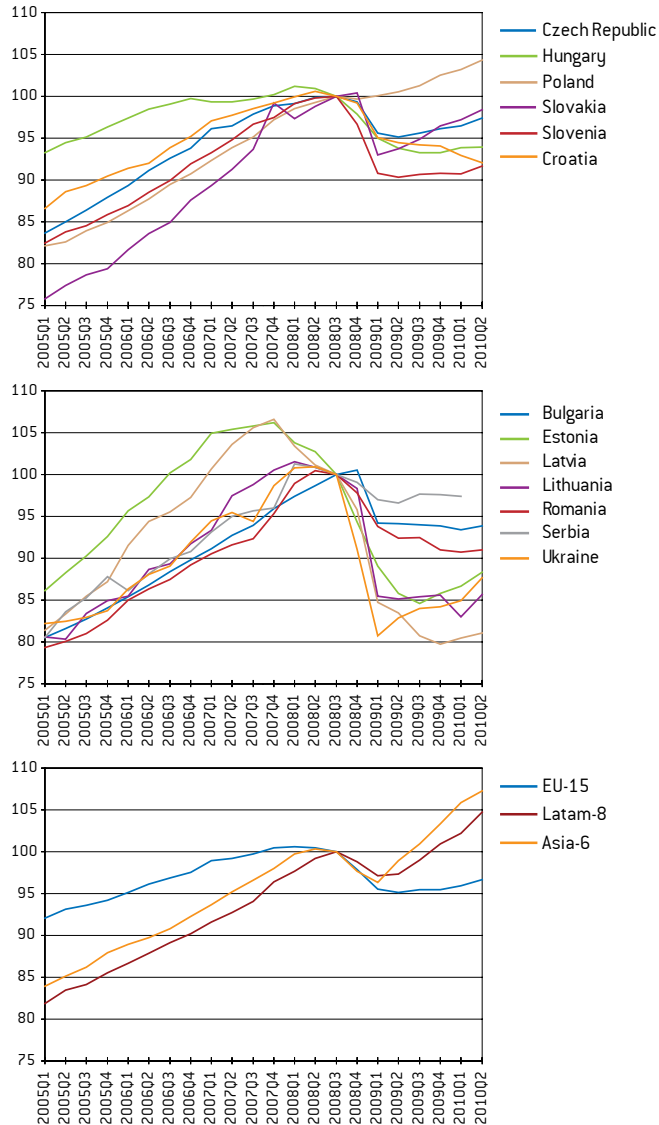
In four Asia-6 economies (Korea, Malaysia, Taiwan and Thailand) the recession had a V-shape, and these countries quickly returned to pre-Lehman GDP levels. In the other two, Indonesia and the Philippines, there was no recession at all. In Latin America the recession was generally mild and the recovery seems swift. This contrasts with both the depth of the output fall and the shape of the subsequent recovery in the CESEE countries. Poland has avoided a recession, but in other CESEE countries the speed of recovery was either modest and significantly less than that observed in Asia-6 and Latam-8 countries, or recovery had not yet started by the first quarter of 2010. As a consequence, output is still significantly below its pre-crisis level.

This provokes two questions. First, why have CESEE countries been in general more seriously affected than countries in other regions, even though their financial sectors

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13. Yet part of the decline in debt-to-GDP ratio was the consequence of above-potential growth.

Figure 1.8: Quarterly GDP developments (2008Q3=100), 2005Q1-2010Q2



Source: Eurostat (EU countries and Croatia), OECD (Korea and Mexico), national statistical offices (Serbia, Ukraine, Indonesia, Malaysia, Taiwan, Thailand, Argentina, Brazil, Chile, Colombia, Ecuador, Peru) and IMF (the Philippines). Note: Seasonally adjusted real GDP series are shown. We used the Census X12 method to adjust series that were available only in an unadjusted form (Croatia, Serbia, Malaysia, the Philippines, Argentina, Peru) Quarterly data is not available for other western Balkan countries listed in Box 1.1.

had not been contaminated by 'toxic assets'? Second, why has CESEE performance during the crisis been so diversified? Why have Baltic countries recorded a downward revision of forecast 2010 GDP of more than 30 percent, while in Poland it was only about seven percent?

In answer to the first question, the standard explanation emphasises trade and financial integration channels. First, the fall in foreign demand for their exports is supposed to be one major reason for output recession. Figure 1.3 showed that CESEE countries are in general much more open than the EU15 and other emerging regions. A second possible answer is the sudden stopping, or even reversal, of the massive foreign-capital inflows that fuelled the expansion of domestic credit in CESEE countries. Figure 1.2 has indicated that net private capital inflows dropped from about 11 percent of GDP in 2007 to practically zero by 2009 in central and eastern Europe. The magnitude of this fall in capital inflows was greater (as a percentage of GDP) than in Latin America at the time of the debt crisis in the early 1980s (where it fell from about five percent of GDP to minus three percent) and in developing Asia after 1997 (where it fell from about six percent of GDP to minus one percent). Such a huge fall in capital inflows necessitated strong adjustment in domestic demand.

In answer to the second question, the differentiated outcomes observed among CESEE countries suggest that they are not a homogenous bloc and that different factors must have been at work in different countries. Indeed, while some CESEE countries have suffered from 'imported' external shocks originating in the US and western Europe, others fell victim to the risky aspects of financial-market integration and, in parts, their own imprudent domestic policies, leading especially to excessive bank lending and external account vulnerabilities, as we have discussed<sup>14</sup>.

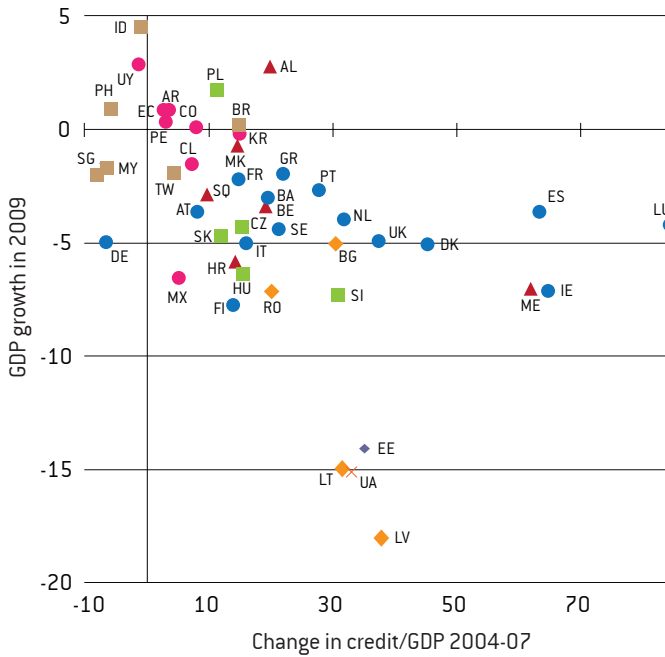
Which was most important: the trade or the financial integration channel? The hypothesis that reduced exports were the major factor behind the recessions in CESEE countries is not supported by statistical data. Domestic demand correlates better than export performance to falls in output, and the export intensity (the ratio of exports to GDP) has not been correlated with the falls in output.

The financial integration channel seems a more probable explanation for most CESEE

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14. Berglöf *et al* (2009) use cross-country regressions to study the determinants of the impact of the crisis and consider a wide variety of possible explanatory variables, such as pre-crisis credit growth, the stock of FDI, foreign bank ownership, external debt, corruption perception (as a proxy for institutions) and also the simultaneous fall in exports and lending, plus a dummy for hard pegs. They found that more than half of the cross-country variation in output decline in response to the crisis can be explained by a small group of macroeconomic vulnerabilities.

Figure 1.9: Pre-crisis credit growth and GDP growth in 2009



Source: Authors' calculations using data from the IMF. Note: See the explanation of the two-digit country codes in the appendix at the end of this volume.

countries. The sudden deterioration of financial assets (mostly asset-based securities, ABS) in developed countries, and in particular in those western European countries where most of the CESEE banks are headquartered, forced banks to restrict credit expansion and accumulate liquidity. The resulting credit crunch hit the real sector, prompting output declines. It could therefore be assumed that the output losses should be higher in countries with higher credit intensity. However, no such correlation can be detected using the cross-section of countries listed in Box 1.1: on the contrary, the countries with high ratios of bank loans to GDP (eg most EU15 and Asia-6 countries) seem to have weathered the financial storm better than countries with lower credit-to-GDP ratios.

But there are two other important distinctions between CESEE and EU15/Asia-6 countries. First, as we have shown (Figure 1.5), the growth of credit was much faster in most CESEE than in the EU15 and Asia-6. Second, credit expansion in CESEE countries has been mostly financed by capital inflows from abroad, rather than domestic deposits, in contrast to EU15 countries and non-European emerging countries.

We have shown in the right panel of Figure 1.5 that current-account deficits were related to the speed of credit growth, while Figure 1.9 suggests that pre-crisis credit expansion was in turn correlated with GDP declines during the crisis<sup>15</sup>.

### 1.4 Summary

The development model pursued by CESEE countries had many special features compared to other emerging economies. The CESEE model was based on deep political, institutional, financial and trade integration with the EU, which was also accompanied by substantial labour mobility into EU15 countries. Other emerging country regions did not have an anchor similar to the role the EU played for CESEE countries. Economic growth was boosted by TFP increases, which were faster (before the crisis) than in any other region, except CIS countries and China. Economic growth in the CESEE region relied on net private-capital inflows, which have reached higher levels than elsewhere. In the aftermath of the dramatic crises in Asia and Latin America in the late 1990s and early 2000s, the CESEE region was the only emerging region of the world that had persistent current-account deficits. Economic catching-up was accompanied by real exchange-rate appreciations, again a unique feature of the CESEE development model, and real interest rates fell.

In fact, the CESEE development model had two important variants within the region. In the CE5 group, growth was accompanied by small and even improving trade balances, as a reflection of reindustrialisation after the collapse that followed the fall of communist regimes. In the second group, comprising BB5 and WB6 countries, the trade balance deteriorated continuously before the crisis. As a consequence, current-account balances were reasonably small (around five percent of GDP) and stable in the CE5 group, but deteriorated sharply to double-digit levels in the second group. This second group is also characterised by fast-rising external debt. Also, house prices rose much faster, real exchange-rate appreciation was also more rapid, while real interest rates fell to lower levels than in CE5 countries, and inflation also rose considerably before the crisis. All of these factors suggest that economic growth in this second group of countries was to a considerable extent fuelled by unsustainable booms. Indeed, there was extremely rapid growth of credit to the private sector in this second group, and the composition of FDI was also biased in favour of banking, real estate and other domestic sectors.

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15. Berglöf et al (2009) also find a statistically significant relationship between pre-crisis credit growth and output decline in response to the crisis. They also find evidence that foreign bank ownership has cushioned capital outflows during the crisis.



What factors have contributed to these diverging developments? The speed of credit growth seems to correlate well with unsustainable developments and hence the key question is what are the underlying causes of fast credit growth, particularly in the BB5 and WB6 countries? Certainly the fixed exchange rate in many countries was a contributing factor, since price-level convergence could occur only through higher inflation (as opposed to nominal exchange-rate appreciation). However, other domestic policies, such as fiscal policy or banking regulation, did not play a significant role. Instead, deep integration with the EU has predisposed CESEE countries to large capital inflows. It is fair to conclude, not just with the benefit of hindsight, that the lending practices of mostly foreign-owned banks were not always prudent.

When the crisis started, it first hit western banks forcing them to accumulate liquidity to cover losses from non-performing assets, and to build up reserves. This led to sudden interruptions, and even reversals, of bank-linked parts of capital inflows to the emerging markets, including most of the CESEE region. This was accompanied by outflow of other categories of capital as other financial investors became more risk-averse and decided to reduce their exposure in CESEE countries and fly to 'safe havens'. The resulting credit crunch was strong enough to depress economic activity and pitch most CESEE economies into recession. The impact was exacerbated by the subsequent export and investment declines, the latter resulting from increased overall uncertainty about future growth prospects. As the crisis unfolded, the credit crunch was replaced by falling demand for credit, caused by increased uncertainty and lowered expectations with respect to future growth prospects (Ghosh, 2009).

## 2. Redirecting the growth model

### 2.1 Introduction

Chapter 1 has shown that the prospects of integration with the European Union drove reform and transition processes in CESEE countries, and even in some neighbouring countries and regions despite their much more limited EU membership prospects. The promise of EU membership was an important focus for both the general public and for policymakers, prompting them to initiate institutional change, follow certain concepts in economic policy design and put in place economic and other behavioural changes. The result was a growth model based on integration with the EU15 that supported sustained a catch-up in productivity and income levels (see Figure 2.1), although this was interrupted in some CESEE countries by secondary transition crises in the 1990s<sup>1</sup>.

The financial and economic crisis that erupted in full after the collapse of Lehman Brothers in September 2008 interrupted the steady progress of the CESEE economies. This chapter concentrates on the prospects for a resumption of growth, and considers the type of growth model that can be envisaged for the region. The challenge when discussing a post-crisis or 'redirected' growth model is two-fold: first, we must make sure we understand whether or not the conditions for growth in CESEE countries have changed as a consequence of the crisis and, if so, over what time horizon. For the purposes of our analysis we distinguish quite carefully the short-run challenges (ie how to get growth going again) from those in the medium to longer run (ie a horizon beyond the next three to four years). The short-run and medium/long-run challenges will be related to expected behavioural adjustments occurring within the countries of the region in the wake of the crisis and to changes in the external environment. With respect to the medium- and longer-run, we have endeavoured to capture the differences between the countries of the region, as different countries and country groups followed different paths pre-crisis and face different challenges

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1. 'Secondary transition crisis' refer here to fundamental policy adjustments that took place in most transition economies either following unsuccessful first-round privatisation programmes, reform stalemates or premature attempts to peg exchange rates at unsustainable levels.

in its wake. These issues will occupy us in sections 2.2 to 2.4. In the final section 2.5, we discuss policy issues that will be much further developed in subsequent chapters.

## 2.2 A post-crisis growth model in the making

### *2.2.1 Characteristics of the pre-crisis growth model*

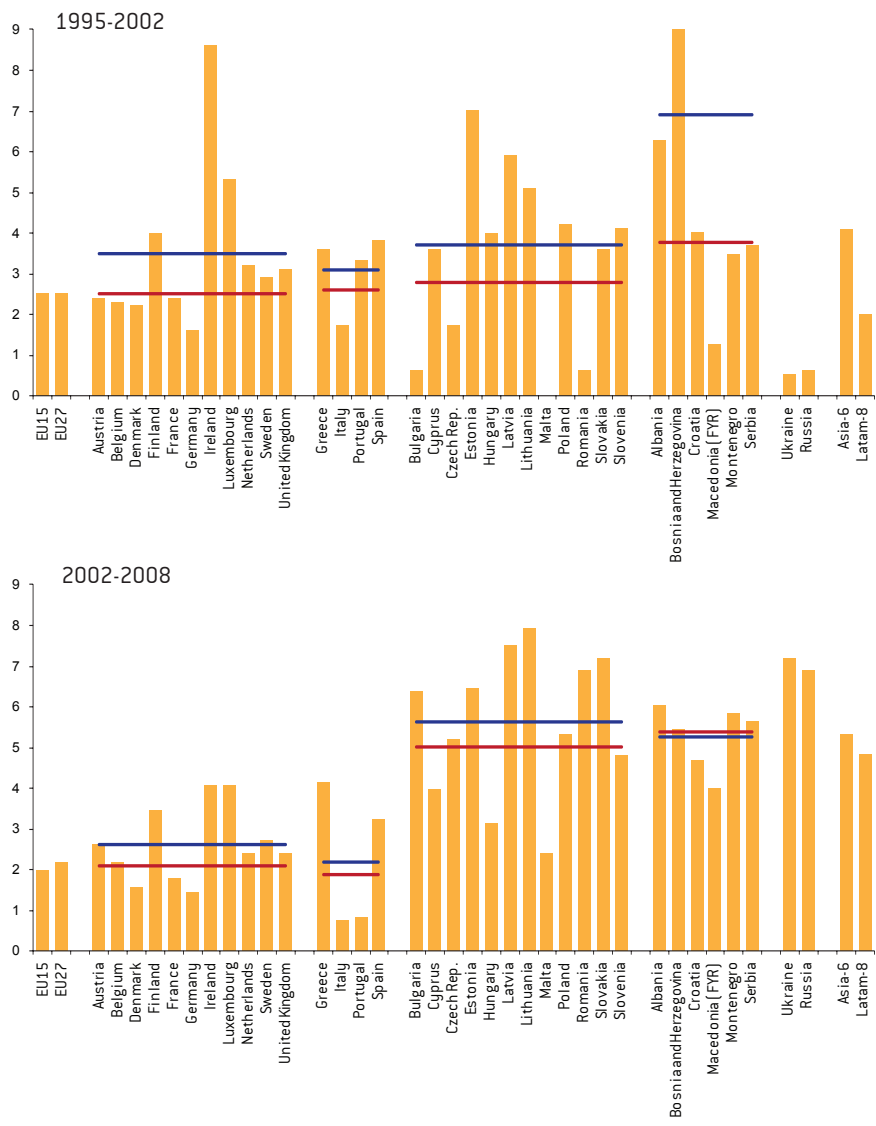
To define the CESEE countries' post-crisis growth model, we must first delineate what characterised the pre-crisis model, in order to understand which features are likely to change because of either the changed characteristics and reactions of market participants, or because of the different constraints on policymakers leading to changes in their policies.

The pre-crisis growth model was accompanied and, in part, shaped by the effort to rapidly achieve EU candidate and then membership status. The choice of a model for catching up with the EU was a consequence of this. CESEE countries pursued a very high degree of liberalisation in external (and internal) economic relations. Trade was liberalised, there was a commitment to free international capital movement (in all its forms) and financial markets were opened up to foreign financial institutions. Foreign banks attained dominant market positions in most countries of the region.

Liberalisation and openness in external economic relations coincided with a classic process of convergence, ie CEE economies embarked on a growth path with rates substantially above those of their western neighbours, even though such catching-up processes were at times (eg in the Czech Republic and Slovakia in the late 1990s, Poland in the early years of the 2000s, Hungary after that) interrupted by policy mistakes (such as pegging the exchange rate too early, mistakes in monetary policy or profligate fiscal spending) or by misalignments of wages and productivity.

Over the period 2002-08 (see Figure 2.1) all CESEE economies experienced significantly higher growth than western European countries. Underlying this growth performance was the room that any lower-income, lower-productivity economy has to benefit from technology transfer (to be interpreted in a wider sense, including product-quality upgrading, the adoption of better organisational structures, and improvements in institutions and behavioural practices), which is the main driver behind convergence processes. Comparative growth-accounting exercises (see, for example, World Bank, 2008) show that growth in total factor productivity (TFP) was the dominant factor explaining overall growth (see Box 2.1). In the case of the CESEE countries the speed of technology transfer was reinforced by the anchoring of their

Figure 2.1: Growth – GDP at constant prices  
Average annual growth rates, 1995-2002 and 2002-2008, in %



Source: IMF World Economic Outlook, October 2010, EBRD and wiiw Annual Database incorporating national statistics, Eurostat. Note: the horizontal lines refer to group averages; blue line: unweighted averages; red line: GDP-weighted averages. Growth in 1995-2002 was 22 percent in Bosnia and Herzegovina, but for readability the axis is cut off at nine percent.

economies to EU pre-accession and accession arrangements. This anchoring supported the rapid and substantial influx of foreign investors, who acted as a major conduit for that transfer. Low relative unit labour costs combined with a relatively high human capital endowment made the region attractive to foreign investors. This led to rapid technology transfer, access to high-income markets and the possibility of integrating into cross-border production networks. Some of the CESEE countries (in particular, the five central European countries, CE5<sup>2</sup>) experienced a period of re-industrialisation – rapid growth of industrial production and industrial exports – after the earlier period of de-industrialisation at the beginning of the transition period. Furthermore, the CE5 economies showed evidence of significant qualitative upgrading of their industrial and export structures (see Landesmann and Stehrer, 2009, and the annex for evidence for this; see also Fabrizio, Leigh and Mody, 2007)<sup>3</sup>.

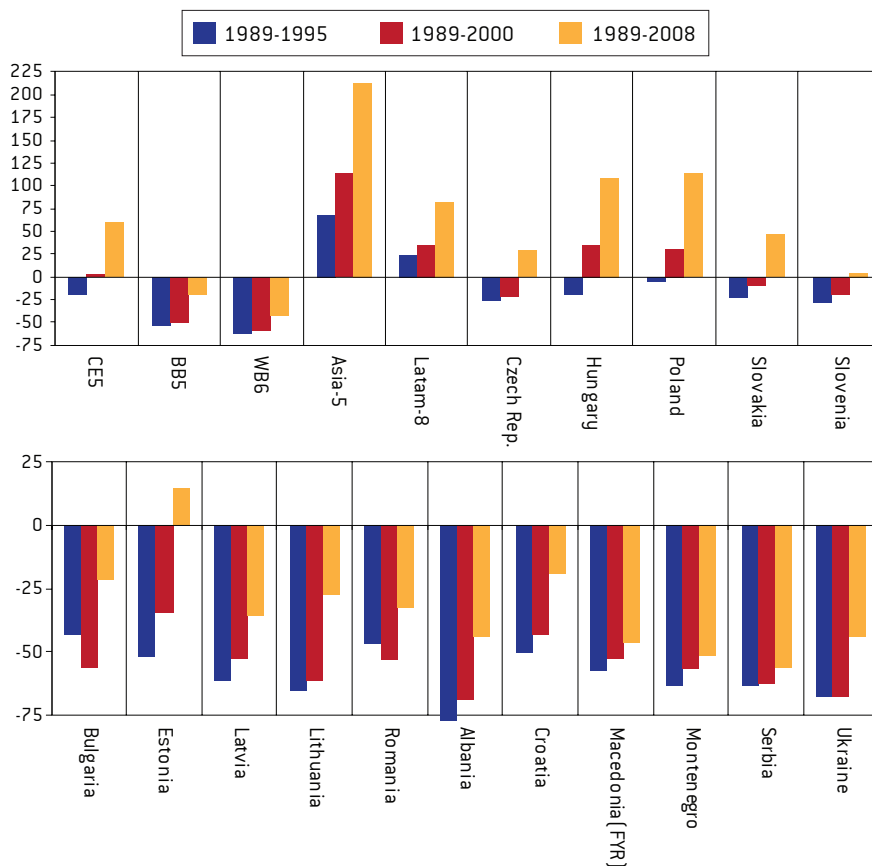
The south-eastern European economies of the former Yugoslavia (excluding Slovenia), Albania, Bulgaria and Romania, on the other hand, went through a longer period of economic and political turbulence and hence they embarked on a process of renewed growth with a considerable time-lag compared to the CE5 countries. They struggled with the long-term impact of a much more protracted period of industrial production decline (see Figure 2.2), which opened up a sustained gap in trade balances. This had grave consequences in terms of their vulnerability to external shocks, to which we shall return below. The Baltic countries experienced phenomenal growth from the second half of the 1990s onwards, and, in line with many of the south-eastern European countries, adopted various versions of fixed exchange-rate regimes. This was often done because of lack of trust in domestic monetary authorities, and to avoid the large exchange-rate fluctuations that can characterise shallow foreign-exchange markets. By fixing the exchange rate, these countries may also have wanted to speed up financial and monetary integration with the euro area. Their exchange-rate regime choices in turn contributed strongly to sustaining and accentuating the problem of deteriorating trade balances.

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2. The Czech Republic, Hungary, Poland, Slovakia and Slovenia. See chapter 1 for country groups.

3. There were also other factors at work in the more successful 'growth models' of the CE5: changes in educational structures and hence the skill structure of the 'future' labour force (for this see Applica and wiiw, 2009); and a change in sectoral and regional economic structures which meant difficult adaptation processes, but this resulted in more forward-looking patterns of sectoral and regional growth (see eg Roemisch, 2007).

Figure 2.2: Industrial production, cumulative change



Source: IMF International Financial Statistics, World Bank World Development Indicators and wiiw Annual Database incorporating national statistics, Eurostat. Note: the starting year for Ukraine is 1990. Asia-5 = Asia-6 (see Box 1.1) without Taiwan.

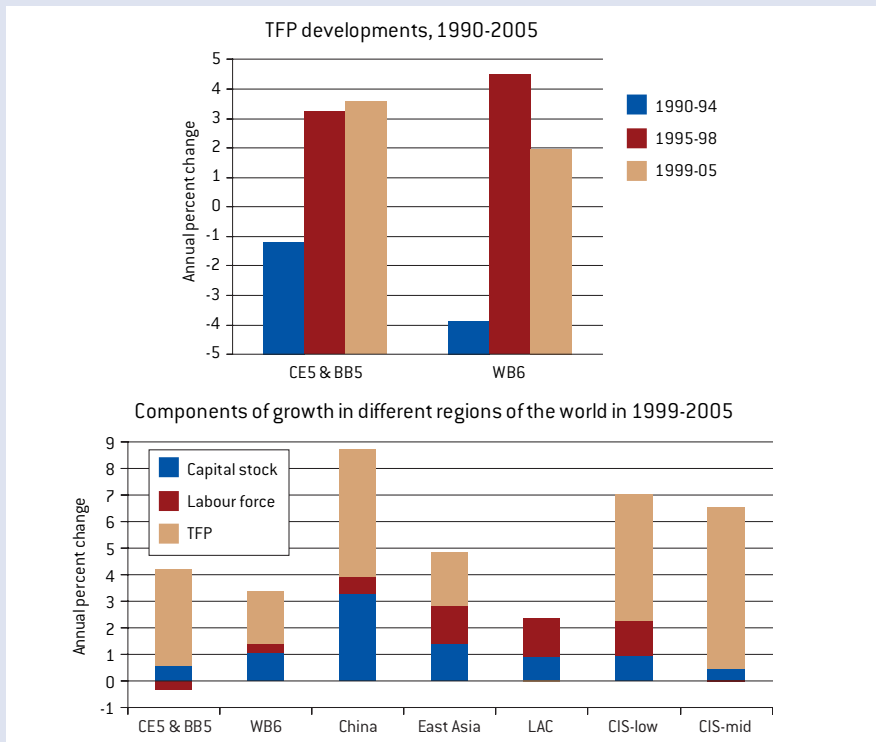
### 2.2.2 Sustainability of growth in central and eastern Europe – differentiation between economies

Economic catch-up in CESEE countries was not just about a burst of high growth. There were also examples of real improvements in conditions for long-run sustainability with respect to both external accounts and fiscal conditions. Regarding external accounts, the CE5 economies saw improvements in trade accounts during the past decade even in a period when these economies experienced positive growth differentials relative to their main trading partners (see Figure 2.3); current-account deficits

**BOX 2.1: THE IMPORTANCE OF TOTAL FACTOR PRODUCTIVITY IN THE CESEE REGION**

Total factor productivity (TFP) was the dominant component among growth determinants in CESEE countries before the crisis, as shown by Figure B2.1<sup>4</sup>. The figure suggests that TFP growth was faster in CESEE countries from 1999-2005 than in any other region of the world, except China and the CIS<sup>5</sup>. Whether or not such high TFP growth can be expected to resume after the crisis is a crucial question. Veugelers [2010] concludes that CESEE countries have limited potential for knowledge-based TFP growth.

**Figure B2.1: Total factor productivity (TFP) developments**



Source: Figures 5A and 5B from World Bank (2008), p. 11. Note: CIS = Commonwealth of Independent States; CIS-low = low-income CIS countries; CIS-mid = middle-income CIS countries LAC = Latin America and the Caribbean; SEE = south eastern Europe.

4. TFP is measured as the 'residual' part of total output growth not explained by capital and labour. Its measurement is even shakier for CESEE and other transition countries than for advanced economies due to the lack of reliable capital-stock data. Furthermore, TFP can also capture cyclical movements in output.
5. Irdian (2007) reaches a very similar conclusion.

were mostly due to negative entries in the income accounts, which reflected the profits made by international investors<sup>6</sup>. This was combined with qualitative upgrading in the CE5 export structures, as discussed earlier. Hence, the CE5 economies were robustly moving towards sustainability of external accounts and the main worry was periodic strong upward pressure on the exchange rate through strong capital inflows. In some countries, the relative movements of productivity and labour costs also had a negative impact on competitiveness and external accounts in specific periods.

On the other hand, as Figure 2.3 also shows, in a range of economies, especially in south-eastern Europe and the Baltics, the evidence did not point towards external sustainability. Trade accounts continued to deteriorate and transfers were insufficient to compensate for this. As a result these countries witnessed – before the crisis – at times dramatically worsening current accounts. These economies suffer from persistent weaknesses in their tradable sectors. The underlying issue is the dramatic fall in industrial production in the early phase of transition, from which these economies have still not properly recovered [see Figure 2.2]. Over-valued exchange rates are particularly problematic [see Holzner, 2006; Égert and Halpern, 2006; Brender and Pisani, 2010]. Over-valuation results from exchange-rate regime choices and associated monetary policies. In some countries this was exacerbated by the importance of remittances and the importance of the tourism sector, both of which hinder the development of a sufficiently large and differentiated export sector.

From this point of view, the crucial issue for the sustainable catch-up of CESEE economies is to *support conditions for the successful development of the tradable sector*, in order to achieve convergence without incurring current-account vulnerabilities.

The conditions for an adapted growth model in the wake of the crisis should therefore take account of the rather different situations found in the two groups of economies: (i) the relatively successful CE5 economies and (ii) the Baltic and the south-eastern European economies, which were on an unsustainable path of external disequilibrium even before the crisis<sup>7</sup>. Both types of economy will have to adjust to changes brought about by the crisis, but the magnitude of the challenge is quite different in each case. Before discussing these adjustments let us however point to further differences between the two groups of economy.

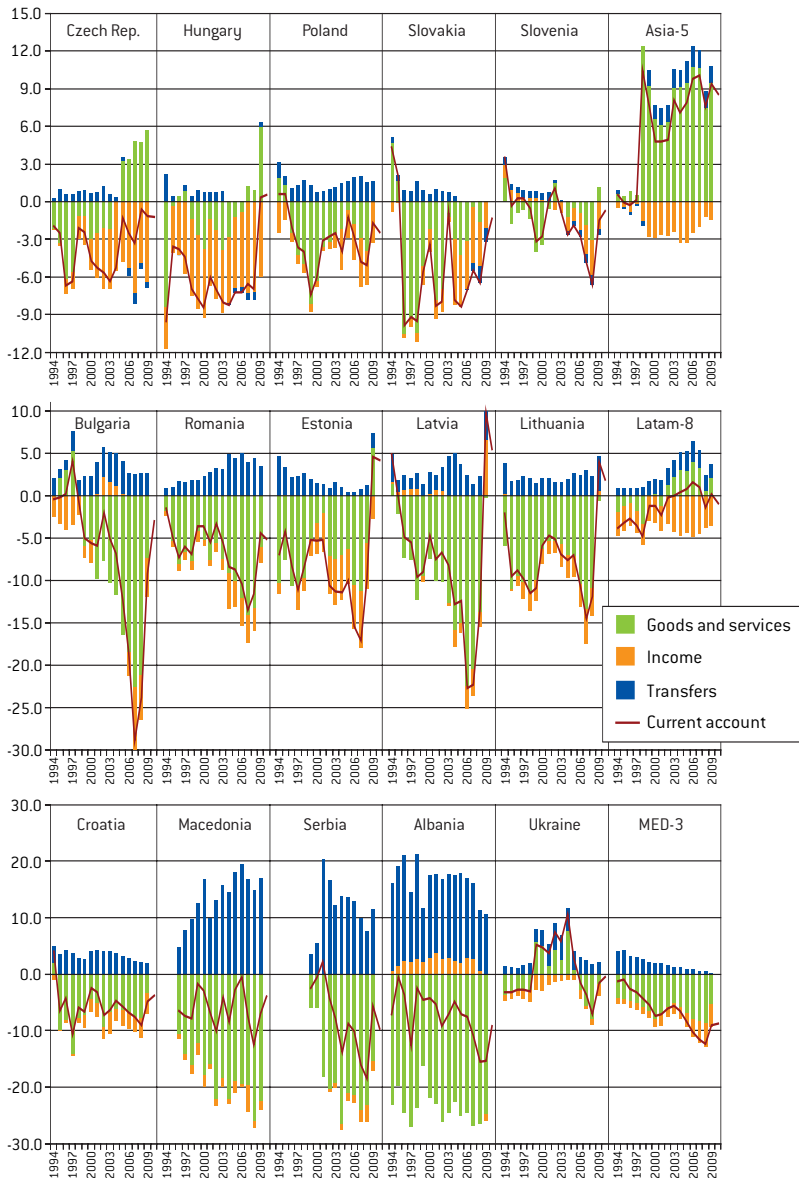
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6. Not only repatriated profits but also profits which are retained and reinvested by foreign firms in the host economy appear as negative entries in the income accounts.

7. The principal issue in the CIS economies is a lack of trade and production diversification and a lock-in of the political-economic structures that are linked with this phenomenon; however, we shall not pursue this issue further here [see Landesmann, 2008].



Figure 2.3: Composition of the current account of the balance of payments, 1994-2010 (in % GDP)



Source: IMF International Financial Statistics and IMF WEO October 2010. Note: For 2010 only the current account balance is available from IMF WEO October 2010. MED-3: Greece, Spain and Portugal. Asia-5: Asia-6 (see Box 1.1) without Taiwan.

Figure 2.4 shows the composition of the main components of the net foreign assets of the different CESEE economies from 2006-08. We see here a three-part differentiation:

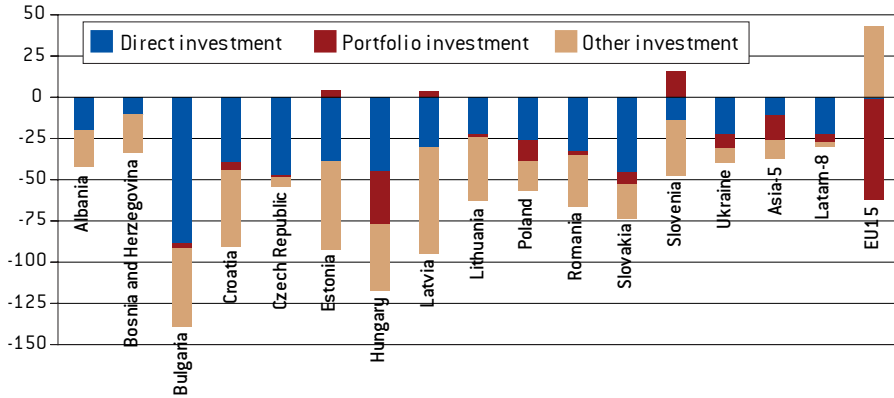
- Economies that have an overwhelming share of net foreign assets in the form of foreign direct investment, and a very low share in the form of net credit (Czech Republic, Poland, Slovakia).
- Economies with a high share of net foreign debt in the form of foreign direct investment but also with a high share of net foreign credit (Hungary, Bulgaria, Romania, Estonia, Albania).
- Economies with an overwhelming share of foreign debt in the form of net credit and a relatively low share of foreign direct investment (other Baltic states, Bosnia).

Slovenia is a special case, having positive net portfolio holdings but also significant net borrowing and low FDI. Hence a significant group of economies (those with high stocks of financial borrowings) were very vulnerable to a change in financial risk assessment and to a stopping of net credit flows.

Figure 2.5 reveals further differences regarding the allocation of foreign direct investment across different sectors of the economy. What we see is that the CE5 economies except Slovenia have a share of FDI stock in manufacturing – a sector with a high trade share – that is above or close to 40 percent; in most of the Baltic and south-eastern European economies it is substantially below that. On the other hand, FDI shares are particularly high in financial intermediation and in real estate in a number of the south-eastern European and Baltic economies. Hence there is a significant difference in the role that FDI played in the different groups of economies in supporting the build-up of industrial capacities and in its focus on tradable versus non-tradable sectors. This supports the notion that the activity of foreign investors in the Baltics and the south-eastern European economies contributed much less towards the build-up of a competitive and sufficiently sized tradable sector than it did in the CE5.

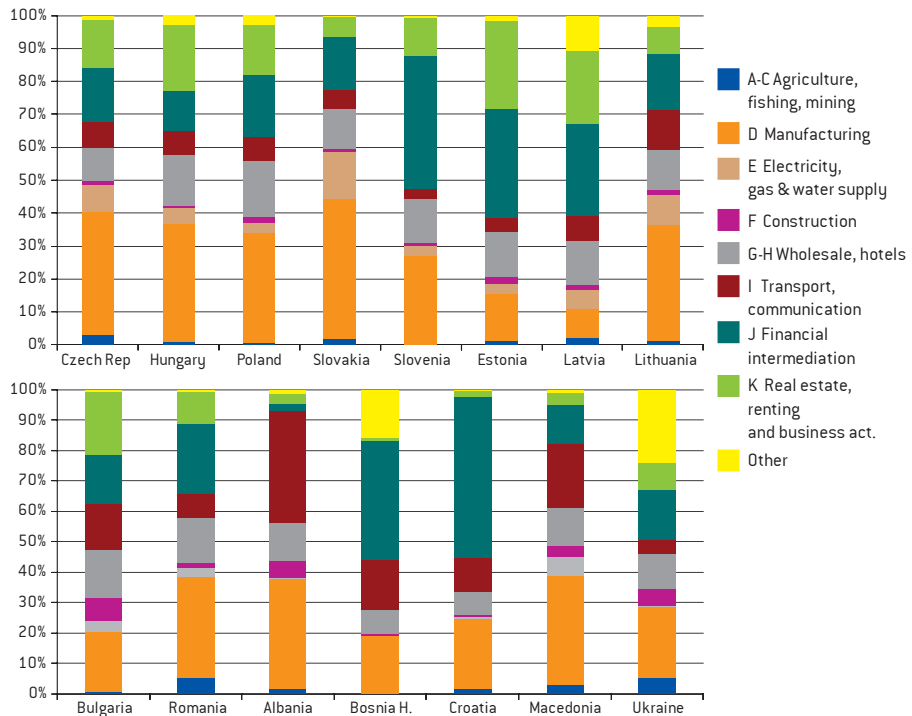
Finally, we want to point to differences in the sizes and characteristics of savings-investment gaps in the CE5 and the south-eastern European and Baltic economies. As Figure 2.6 shows, these are most striking in relation to private sector savings-investment short-falls, which had to be covered through foreign borrowing. Roughly the same grouping of economies emerges in this respect, ie the characteristics of the CE5 countries are different from those of the south-eastern European and Baltic

Figure 2.4: Net foreign assets, 2008, in % of GDP



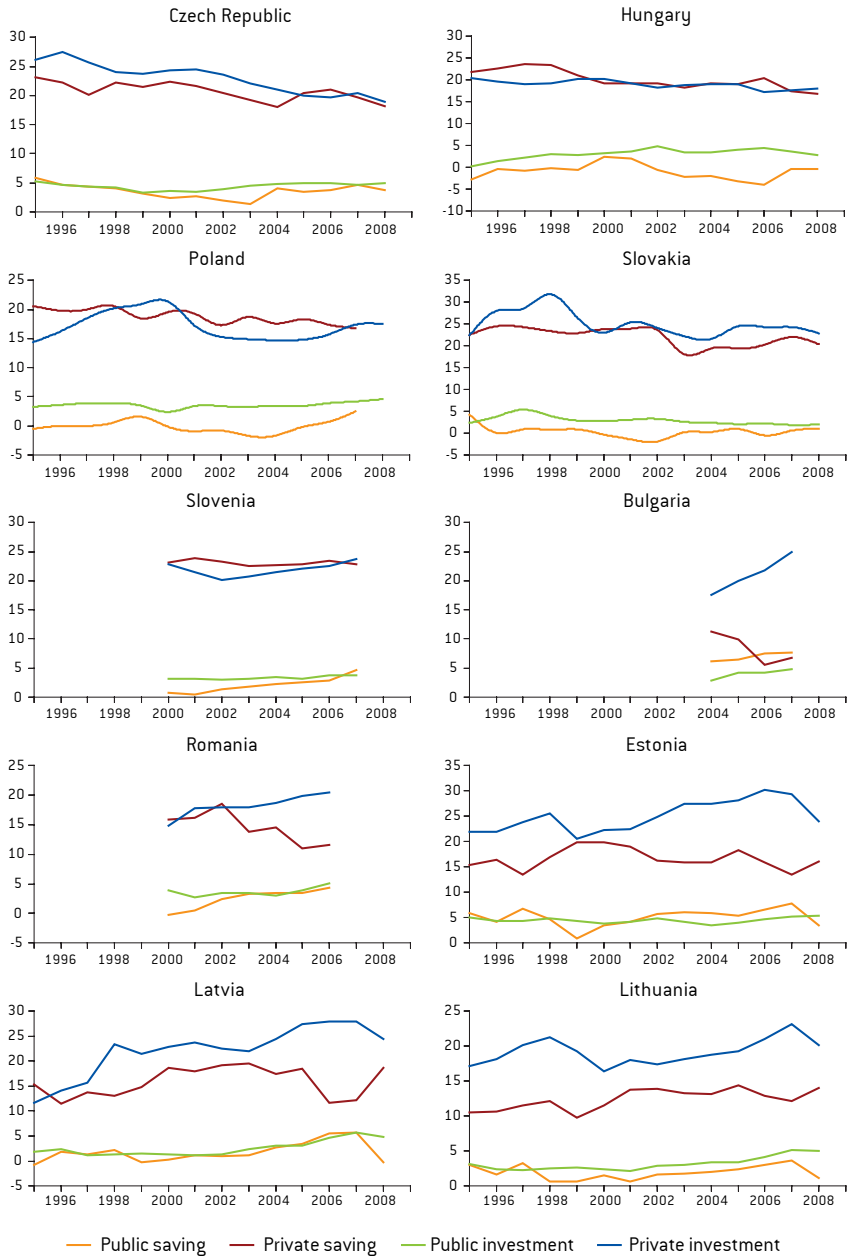
Source: wiiw Annual Database incorporating national statistics, Eurostat.

Figure 2.5: FDI stock by activities, as of December 2007, shares in %



Source: wiiw FDI Database. Note. Data for Slovakia refers to 2006, data for Albania refers to 2004.

Figure 2.6: Savings and investment, gross, in % of GDP



Source: wiiw Annual Database incorporating national statistics, Eurostat. Note: Notice that scales vary across figures.

countries (lack of data means we were unable to examine all of the CESEE economies). Hence strong growth of net credit inflows and large savings-investment gaps of the private sector in Baltic and south-eastern European economies before the crisis point to problems with the effectiveness of monetary policy and capital market regulation, an issue that is taken up in greater detail in chapter 4.

In summary, the analysis indicates that it would be wrong to speak of uniform problems with the growth model across the entire range of CESEE economies. Thus suggestions regarding the redesign of the growth model must take such differences into account.

The CE5 economies have built up a reasonably competitive trading sector. This was reflected in manageable current accounts and continued interest on the part of foreign investors in investing in export capacities, with the added benefit that the composition of capital inflows reflected this interest.

In contrast, we have presented evidence of the weaknesses of the tradable sectors in all other CESEE economies. Nonetheless these economies also achieved very high growth rates pre-crisis. But this growth performance stood on shaky legs and cannot simply be recommenced in this form following a recovery from the crisis. Future growth in CESEE countries is unlikely to be supported by the extent of current-account deficits and the inflow of credits that were seen in these economies before the crisis. Most of these economies went through a serious adjustment in current-account developments during the crisis, which reflected sharp drops in GDP and the sudden stopping of international financial flows<sup>8</sup>. Hence, the crucial question is whether or not there are adjustment processes at work that will allow the resumption of growth without incurring severe external imbalances in the future (for a discussion of this issue in relation to the Baltic states, see Darvas, 2009a).

### 2.3 Adapting the growth model to changed internal and external conditions

In the following we discuss two sets of factors that will shape the growth model in the CESEE region. These are:

- Internal behavioural adjustments in the CESEE countries and new constraints on policy, and
- Changed external circumstances.

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8. See, for example, the IMF's April 2010 World Economic Outlook.

### 2.4.1 Internal behavioural adjustments

#### i) Financial market developments

As chapter 1 discussed, the CESEE region was the beneficiary of very large capital inflows, much higher (in relation to GDP) than was the case for other emerging market economies globally. In a sub-set of CESEE economies there was also evidence of very fast credit growth leading to substantial private-sector debt (see Figure 1.6, chapter 1). An important fall-out of the crisis was that net capital imports slowed down or stopped, credit became much more difficult to obtain, and the private sector started to embark on a process of deleveraging. The crisis revealed significant earlier miscalculations in risk perceptions in relation to asset values, in the evaluation of the balance-sheet positions of some of the important actors in financial markets and of the default risks of households and businesses under changed circumstances; an important element of such risks relates to exchange rates. Finally, given these changed risk perceptions, the evaluation of sovereign public-sector debt also changed.

One evaluation of the outcome of the current crisis is that risk perceptions are not going to revert to pre-crisis levels. If risk perceptions are going to remain at a higher level over a medium-run horizon, this means that credit conditions will remain tighter than before the crisis. This relates to both lending behaviour within the countries and in relation to the outside world. In addition, the crisis worsened the balance-sheet positions of banks and of households; this also leads to more cautious lending and borrowing behaviour. Hence one of the most important outcomes of the crisis will be that transition and catch-up economies have to adjust to *more difficult financing conditions*, concerning both finance from domestic financial institutions and from the outside world. Economists will, however, find it hard to predict how long higher risk perceptions are going to last.

#### ii) The household sector

The household sector has experienced and will further experience a deterioration of its debt and/or financing position. There is considerable variation across the CESEE economies. In some economies the levels (and/or rates of increase) of household debt were high or very high in the build-up to the crisis (the Baltics, Croatia, Hungary, Romania) and this indeed has been one important reason for the vehemence of the transmission of the global financial crisis to this region. In three other economies (Albania, Poland and Serbia) levels of household debt might not have been as high,

but depreciation of the national currencies led to a jump in household indebtedness in the cases where loans were taken out in foreign currencies, though depreciation largely proved to be temporary. The implication of these financial constraints is that households will have to rely more on own income sources and might be forced to repay their loans implying higher savings rates. Other households will likely also undergo a process of voluntary deleveraging, ie attempts to reduce the level of their debt as lower than expected income flows imply a lower longer-run wealth position of households. All this points to a *rise in household savings rates* in CESEE economies over the medium term.

### iii) Fiscal positions

*Fiscal positions have worsened and will significantly worsen* in the aftermath of the crisis: lower incomes reduce tax revenues and the economic recession increases public-expenditure commitments. Furthermore, some of the public debt is in foreign currency and hence the largely temporary depreciation of currencies affected public debt/GDP ratios. In a number of countries there was also an increase in debt to international financial institutions (IMF agreements). Hence, although most CESEE economies (with the major exception of Hungary) went into the crisis with rather low public-debt levels and governments could feel confident that in a climate of high growth and relatively low interest rates this debt could easily be serviced, the outcome of the crisis has significantly changed this perspective. While sustainability of fiscal positions did not seem a problem in a period of high growth, when the countries experienced trend appreciations of their currencies and low interest rates, the outlook changed.

The room for manoeuvre for fiscal policy is discussed in chapter 5 of this report, especially with regard to the scope in CESEE countries for counter-cyclical fiscal policy. At this stage we want to mention two possible policy scenarios in so far as they affect medium- and long-run growth.

In principle it is possible to have both a positive or a negative view on the effect of fiscal policy on economic growth. The positive view would be that the tighter fiscal constraints experienced as a result of the crisis would lead to a streamlining of public expenditure programmes. This could lead to reform of a host of social expenditure programmes in such a way that they become more targeted and the efficiency of administrative procedures is improved. Furthermore, governments could use the opportunity to redirect resources towards growth-enhancing spending programmes. A negative view would be that pressures on public spending would lead to a relative

neglect of public investment in favour of defending existing government programmes rather than their reform.

#### *2.4.2 Changed external circumstances*

The following three factors are particularly relevant in this respect:

##### i) Drop in the trend growth path of the main European export markets

The expected longer-term impact of the crisis on potential growth paths is not only relevant for the CESEE region, but also for the main export markets served by the region's countries, namely western Europe<sup>9</sup>. This will be a growth-dampening factor for CESEE countries.

##### ii) Reforms in the financial architecture at national, European and global levels

The experience of the crisis has shown that CESEE countries were very vulnerable to the instabilities of and shocks felt by the global financial markets. In the final analysis, these were the causes of the rather dramatic and unexpected interruption of growth in CESEE economies.

Changes in the financial architecture will likely be directed towards strengthening the capital-base of any future credit expansion, and empowering regulatory authorities to monitor the stability of financial (particularly banking) institutions. In all these areas, the growth prospects of the CESEE region could benefit, because in the past there were signs of overheated and misdirected expansion of credit (particularly when borrowing led to unsustainable bubbles) and lack of effective instruments that could be administered by domestic regulatory authorities, particularly with respect to cross-border financial market transactions. Any agreement on regulatory reform to tackle these issues of cross-border financial market integration might be beneficial for the characteristics of financial intermediation in the CESEE region. These issues are discussed at length in chapter 4.

##### iii) New and differentiated positions vis-a-vis EMU membership

The experience of the crisis, in particular the fact that serious external-account

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9. See various publications analysing the impact of the crisis on potential output: Böwer and Turrini (2010), European Commission (2009a), Fouceri and Mourougane (2009).



imbalances and processes of credit expansion made CESEE economies prone to contagion effects, led to a feeling that non-euro area CESEE countries are indeed very vulnerable to financial market shocks. This perception had a number of contrary effects: within the euro system, it strengthened the sentiment that any quick enlargement of the Eurogroup would increase the financial instability of the group as a whole<sup>10</sup>. But the events have increased the desire of some would-be members (the Baltic states, some Balkan economies) to join as quickly as possible in order to obtain the support in terms of financial and monetary stability which full euro-area membership supplies. Lastly, the different experiences of countries with various fixed or pegged exchange-rate regimes compared to those with flexible regimes during the crisis have also strengthened the view of some (mostly flexible regime) countries that giving up their own currency too soon deprives the economy of an important instrument to absorb shocks. Hence, as a result of the crisis, CESEE countries that are EU members are likely to take significantly different approaches to their obligation to adopt the euro, in the context of a likely stricter application of rules for EMU entry<sup>11</sup>.

## 2.4 Policy suggestions to support a 'reoriented' growth model

The main pre-crisis assets of the CESEE countries remain and will continue to be relevant and provide grounds for optimism about growth prospects in the region. These assets are CESEE countries' EU membership, or their pre-accession status or simple proximity to the EU, and all that these imply in terms of institution-building and market access, and their relatively high level of human capital endowment and scope for catching up in productivity terms. However, some of the severe structural weaknesses of CESEE countries have not disappeared. Policy mistakes that were made in the run-up to the crisis – in financial, monetary and fiscal policy – will have to be corrected in order to improve the sustainability of their growth. Unfortunately such corrections will have to take place in an environment of worsened external and internal conditions (see the discussion in section 2.4, above).

Several policy suggestions emerge from the preceding analysis, taking into account the major differences between the different sub-groups of economies.

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10. This position was further significantly strengthened by the strains which the post-crisis developments in the IPSP countries – Ireland, Portugal, Spain and particularly Greece – generated within the euro-bloc.

11. Such a stricter regime can eg be applied by scrutinising countries much more carefully before they are allowed to enter ERM-II, membership of which is a pre-condition for EMU entry.

### i) Adjustment to reduced net capital imports

Lower net capital imports (especially the net credit component) can be addressed in two ways:

- Reduce the private sector savings-investment gap and – in due course as public finances deteriorate – through longer-run fiscal consolidation.
- Make a sustained attempt to improve the current-account situation by making improvements to the competitiveness of the tradable sector.

It is clear from our analysis that adjusting to lower net capital imports will be most difficult for those economies that relied most heavily on such flows and in which the current accounts and savings-investment gaps were in serious disequilibrium. Adjustment means tackling the underlying factors that led to sustained external imbalances: in a number of cases (the Baltic states and many Balkan economies) this means dealing with the issue of seriously misaligned real exchange rates, which is particularly difficult to deal with in pegged or fixed exchange-rate regimes where there is no possibility or willingness to switch to more flexible regimes. We discuss this issue extensively in chapter 3 of this report. Even under flexible exchange-rate conditions, difficult phases of misaligned real exchange rates have emerged as a result of two factors: overly strong pressure on nominal exchange-rate appreciations, which are connected with financial-market behaviour and for which better arrangements should result from financial-market reforms; and wage-productivity dynamics that require improved arrangements for labour-market bargaining systems. The issue of savings-investment imbalances is, of course, also closely linked to the savings behaviour of households, as discussed above, and the difficulty of conducting monetary policy in economies with highly integrated cross-border financial markets. This issue is taken up in chapter 4.

In the coming years, CESEE countries will receive increased flows from the EU budget as they either become full recipients of Structural Funds and other EU policy programmes or, in the case of other economies, changes in pre-accession or candidate status might lead to an increase in such flows. This will be a counter-weight to the more difficult situation with respect to private-sector capital inflows. This report makes in a number of its chapters suggestions of how the timing, characteristics and scale of such transfers can assist the adjustment processes in the different CESEE economies.

- ii) Adjust to higher household savings rates but use these savings in the most growth-enhancing manner

A likely outcome of the crisis will be a medium-term increase in the household savings rates in CESEE economies. Such an increase is to be welcomed for the longer run as, in many cases, savings rates were rather low in CESEE economies by international standards, and low savings rates were the cause of severe imbalances in a number of economies. However, an upward adjustment of household savings rates will *ceteris paribus* lead to a medium-run problem of dampened domestic demand. This can be compensated for through increased fiscal stimulus and/or a drive to support the tradable sector and hence net exports. Hence the issue of adjusting to higher medium-run domestic household savings rates is linked to the discussion on the role of fiscal policy in CESEE in the course of the economic crisis and in its aftermath (see chapter 5).

Furthermore, a sustained re-launch of growth in CESEE countries will require a more efficient use of savings than in the past. Policy instruments (credit support for SMEs, credit facilities to support skill acquisition, re-training and new technology adoption; controls on mortgage lending) could be used to make sure that savings flow in the direction that supports sustained growth and tackles the main weaknesses in external accounts (see also point iv below).

- iii) Support the re-launch of the stalled credit system but ensure it operates according to improved regulatory mechanisms

As in the more advanced western economies it is vital for a sustained recovery that the credit system functions properly again. Hence there is an essential short-run challenge to reduce credit constraints to support the resumption of economic activity in an environment in which the private sector suffers from debt overhang. The expected deleveraging process in a situation in which the balance sheets of national and international banks are weak and the authority for bank restructuring is split across national borders is a major challenge for monetary-policy authorities at national and European levels. There is also the longer-run task of putting in place improved regulatory mechanisms for the overseeing of credit growth and credit allocation. Both these issues are crucial for the prospects of recovery and the avoidance of the recurrence of misallocations and imbalances, which characterised the situation in a number of economies before the crisis. Given the past experience, it will in this context also be important to support a shift in banks' lending policies so that they lend more to the enterprise sector and less to the household sector.

iv) Aim to achieve sustainable fiscal balances, in part by redirecting public expenditure in a growth-enhancing direction

The crisis has led to serious increases in public debt in CESEE countries, although public-debt levels remain significantly lower than the average in western Europe. Nonetheless, given that it is more difficult post-crisis to finance this debt, attention to sustainability is important. This must however be balanced with the need for fiscal-stimulus programmes in the shorter run to compensate for rising savings rates in the household sector and difficult export conditions. Improvements in the structure of expenditure programmes and especially a redirection towards growth-enhancing items (such as education and infrastructure) are certainly called for.

v) Policies to underpin growth

Given the importance of strengthening the tradable sector in many CESEE economies, a whole range of human capital, technology, industrial and regional policies should be employed. These have particular relevance for economies that have so far not been able to reverse the early deep process of de-industrialisation, and where investment patterns favoured the expansion of non-tradable rather than tradable sectors. In these economies the above-mentioned policies may to some extent compensate for a reduced FDI inflow, which was the main agent of industrial structure upgrading in the more successful CE5 economies before the crisis. Such policies have to be designed to prepare the ground to make the region attractive when foreign investment resumes and cross-border production integration can and should proceed again. The various EU regional and other policy programmes should be used in a complementary fashion to support such policies. Design of such policies and the timing of spending should be coordinated with the European Commission in such a way that they support a timely re-launch of growth and underpin a sustainable growth trajectory. Governance mechanisms to ensure that programmes are used efficiently need to be put into place or strengthened.

Finally, CESEE countries have – in most cases – to cope with an even worse demographic prospect in terms of ageing than most western European countries. Policies directed at increasing the utilisation of the available labour force (activity and employment rates) and improving its quality through human-capital enhancing policies, will have to be a main item on the policy agenda. In addition, CESEE countries that have for a long time been net-emigrant countries, will have to learn the art of successful (and human-capital enhancing) migration policy.

### Annex: Evidence for upgrading the export structures of CESEE countries and for cross-border production integration with the 'EU North'

In the following we present evidence for 'qualitative upgrading' of the export structures of CESEE countries in comparison with other emerging market economies. The methodology is more extensively explained in Landesmann and Stehrer (2009). Figure A2.1 shows relative export unit values of export flows from different groups of emerging market economies into EU15 markets. The information on relative export prices has been obtained from very detailed (8-digit CN) product-level data and then aggregated for groups of industries depending upon the product compositions of the different countries' exports. The zero line in Figure A2.1 gives the average prices for exports to EU15 markets and, hence, values above/below that line mean that a country (or country group) sells its exports at above/below average unit prices in EU15 markets. The industry groupings selected for Figure A2.1 and then also for Figure A2.2 refer to 'lower tech' and 'medium-higher tech' industries whereby the classification on these industries can be obtained from Landesmann and Stehrer (2009).

The results show that CE5 economies have seen a remarkable increase over the period 1995-97 to 2005-07 (we took three-year averages) in the prices at which they sell their products to EU15 markets, and that this increase was particularly impressive for the 'medium-high tech' group of industries. For the Baltic states and Bulgaria and Romania (the BB5 group, see chapter 1) the increase was more moderate and more significant in the 'low tech' group of industries. Notice also that China still competes mostly on price.

In Figure A2.2 the information on changes in relative export prices over the period 1995-07 to 2005-07 is supplemented with information on changes in market shares in EU15 markets. Here we see that both the BB5 and CE5 economy groups have increased their market shares substantially in EU15 markets, but that the increase in market shares and in relative export prices is particularly remarkable for the CE5 economies in the 'medium-high tech' industries.

The other evidence we want to present with regard to characteristics of export structures of CESEE economies is contained in Table A2.1, which shows some features of the cross-border 'production integration' or outsourcing between the 'EU North' (where the 'EU North' is defined as the EU15 excluding Greece, Portugal and Spain) and the two groups of lower-income EU economies: the 'EU South' (Greece, Portugal, Spain) and the mainly eastern European countries that joined the EU in 2004 and 2007 (the EU10).

Figure A2.1: Relative export prices by industrial groupings into EU15 markets (low tech and medium/high tech groupings)

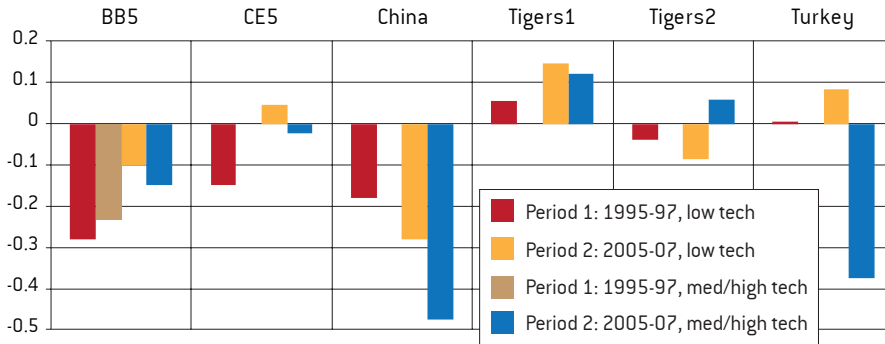
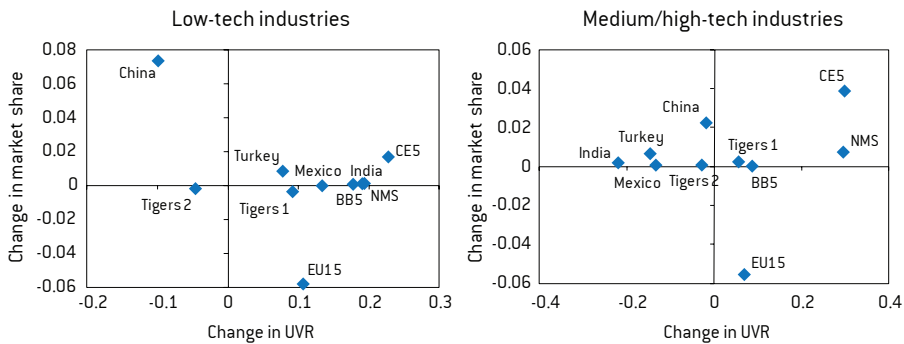


Figure A2.2: Price and quality competition in EU15 markets, 1995-98 to 2005-07 by country groups



Source for both figures: Own calculations on the basis of COMEXT data.

Definition: NMS=CE5 + BB5 (see Box 1 in chapter 1). Tigers 1: Hong Kong, Singapore, South Korea, Taiwan; Tigers 2: Thailand, Philippines, Malaysia, Indonesia, Vietnam.

Landesmann and Stehrer (2009), furthermore, use trade statistics that classify products by types of use: 'primary inputs', 'processed inputs', 'parts' and 'final products'. This analysis allows them to reveal features of cross-border production integration or 'outsourcing' between the EU15 and the CE5. They further differentiate the industries which produce these products into low tech, medium tech, medium-high tech and high tech, again differentiated by research and development intensity.

The results presented in their paper show that trade shares (in EU15 imports) of the CE5 have increased substantially across all product groupings, but that they have increased most in parts production (where the increase over the period 1995 to 2005 was fourfold while the overall increase in import shares was twofold). This increase was by far strongest in the supplies of parts production from medium-high tech industries. In line with other studies this shows, first, a strong expansion of cross-border production integration between the CE5 and Western Europe and, second, that within this form of economic integration there is also evidence of dynamic up-grading in the positions of CE5 producers.

# 3. Exchange rate regimes and the path to euro adoption

## 3.1 Introduction

The choice of exchange rate regime is one of the key policy choices for those CESEE countries that are not yet part of the euro area. The pros and cons of alternative strategies for individual countries should be evaluated in the light of the progress made in catching-up with euro area countries economically, and in view of the growth strategy adopted and the policy instruments at the disposal of governments<sup>1</sup>. This chapter addresses three issues in this regard:

- i) The choice of exchange rate regime prior to euro adoption;
- ii) The EU's policy on euro area enlargement and participation in the ERM II mechanism;
- ii) The EU's policies for stability and growth before, during and after accession to the euro area, with special emphasis on the Stability and Growth Pact (SGP).

Exchange rate policies have greatly affected how countries have fared in both the boom and bust phases of the current crisis. In particular, fixed exchange rates<sup>2</sup> seem on average to have amplified the excesses and imbalances in the boom, and contributed to more severe declines in the bust.

The crisis clearly demonstrated the important role of cross-border financial flows in creating booms and the associated vulnerabilities in the bust. A part of the private sector capital flows to CESEE countries was motivated by the promise of rapid growth

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1. Many authors have discussed the convergence process and associated risks, see for example Vamvakidis (2008), Darvas and Szapáry (2008), and Fabrizio, Leigh and Mody (2009).

2. There are significant differences between the versions of fixed exchange rate regimes. Flexible exchange rate regimes also differ in terms of how much flexibility is really allowed before the authorities intervene. Nevertheless, we put these nuances aside here in order to sharpen the choice between the fixed and flexible exchange rate regimes.



that comes with economic convergence and the comparative advantages associated with relatively low wages and prices. But these persistent inflows were also encouraged by fixed exchange-rate strategies that led private actors to underprice risk. Private capital funded a too-rapid credit expansion, which led in several cases to booming real estate prices<sup>3</sup> and excessive wage inflation, ultimately contributing to declining competitiveness, massive current-account deficits, and the substantial build-up of foreign debt (see chapters 1 and 2)<sup>4</sup>.

New strategies to deal with exchange-rate issues and, more generally, with macroeconomic and financial stability are needed both at the EU and domestic policy levels. This could require revisions to the Maastricht criteria and the SGP rules, as well as a stronger framework for dealing with capital flows and financial stability.

### 3.2 Experiences with exchange-rate regimes

#### 3.2.1 *The polarisation of CESEE exchange-rate regimes*

Before considering the fundamental issues related to exchange-rate regime choice and the path to euro adoption, we briefly summarise the exchange-rate regimes of CESEE countries (Table 3.1 on the next page) since the mid 1990s.

Table 3.1, which indicates a wide diversity of exchange-rate regimes, both across countries and over time, illustrates well two important insights from research into exchange-rate policy. The first is Jeff Frankel's famous statement that '*no single currency regime is right for all countries or at all times*' (Frankel, 1999). Indeed, exchange-rate regimes are endogenous outcomes of macroeconomic developments and policy preferences and hence it is not always easy to pin down the reasons behind policy makers' choices. Even countries with similar circumstances often opted for different regimes, eg the Czech Republic (float) and Slovakia (euro), Romania (float) and Bulgaria (currency boards), or Serbia and Albania (float) and the other four western Balkan countries (various kinds of fixed exchange rates)<sup>5</sup>.

The second insight is what became known as the 'hollowing-out' of intermediate exchange-rate regimes such as managed floating and fixed-but-adjustable exchange

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3. The boom in real estate in Europe is described in, for example, Hilbers *et al* (2008).

4. Rahman (2008) describes the 'EU-phoria' associated with large current-account deficits in countries that joined the EU in 2004 and 2007.

5. Yet some authors argue that the floating regimes of Serbia and Albania are managed floats, though as Figure 3.1 shows, the exchange rates of these countries fluctuated considerably during the crisis.

Table 3.1: Exchange rate arrangements in CESEE countries (1996-2009)

	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009		
Bulgaria	Floating	Currency board, DM	Currency board, EUR													
Czech Rep.	Band 65% DM, 3% USD +/- 7.5%	Floating														
Estonia	Currency board to DM		Currency board to EUR		ERM-II, Currency board											
Hungary	Crawling band, +/- 2.25%, 30% USD & 70% DM	Crawling band, EUR +/- 2.25%	EUR band +/- 15%												Floating	
Latvia	Peg to SDR, +/- 1%															
Lithuania	Currency board to USD															
Poland	Crawling band 45% USD, 35% DM, 10% GBP, 5% FFR, 5% CHF +/- 10%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%	5% ECU +/- 2%		
Romania	Floating															
Slovakia	60% DM, 40% USD band +/- 3% +/- 5%	+/- 7%	Floating												ERM-II +/- 15% de facto float with revaluations	Euro
Slovenia	Managed floating, de facto peg or crawling peg to DM/Euro															
Albania	Floating (1992.07. .)															
Bosnia & H.	Currency board to DM															
Croatia	Managed floating															
Macedonia FYR	Managed floating, de facto peg to EUR															
Montenegro	de facto peg to the DM/EUR															
Serbia	Peg DM	Euroization														
Ukraine	Peg DM	Managed floating														
	Peg or de facto peg to USD	Peg or de facto peg to USD														
	Peg/band to USD	Peg/band to a basket	Peg/band to DM/Euro	ERM-II	Euro	Euro	Euro	Euro	Euro	Euro	Euro	Euro	Euro	Euro		

Source: Updated from Szapáry (2009) using central bank annual reports. Note: for basket pegs and bands, the composition of the basket is indicated. Whenever a band is adopted, its width is indicated (eg +/- 7 percent).

rates (Fischer, 2001). Indeed there has been a polarisation with the adoption by several countries of a fixed exchange-rate strategy, several others have moved towards hard pegs or euro-isation. Polarisation, first observed at global level in the 1990s, applies perfectly to Europe where fixed exchange rates are typically adhered to with the aim of maintaining a regime that is thought to be more conducive to credible macro-economic policies and favourable to early euro adoption.

It also needs to be recalled that the exchange-rate regime choices of countries in the region, including various types of fixing exchange rates, were often supported by their EU partners. Even the controversial decisions of Kosovo and Montenegro to euro-ise were less unilateral than frequently presented. There have been only two occasions when European partners explicitly distanced themselves from the plans of individual countries: Lithuania's euro application in 2006<sup>6</sup> was not supported and Bulgaria was denied entry to the ERM-II after its EU admission in 2007.

### *3.2.2 The build-up of vulnerabilities in the boom*

The pre-crisis boom phase affected both fixers and floaters. Capital inflows were overwhelming and both categories of countries experienced real exchange-rate appreciation. However, significant differences between them could be observed in financial stock developments and the composition of capital flows.

As discussed in chapters 1 and 2, capital flows to the BB5 and WB6 countries were heavily biased towards the financial and real-estate sectors. Although some of this was in the form of FDI, much was in loans that contributed to a rapid and significant build-up of foreign debt. Capital flows to the CE5 countries on the other hand were more in the form of FDI to the manufacturing sector. This prevented the build-up of balance-sheet vulnerabilities and instead contributed to the strengthening of the competitiveness of the tradable sector. Fixed exchange rates contributed significantly to making foreign loans (rather than FDI) the dominant form of inflowing capital, especially for the banking and real-estate sectors. Fixed currencies were associated with significantly negative real interest rates for domestic borrowers, coupled with the impression that exchange rates would not adjust to deal with this imbalance. This became a self-reinforcing cycle with the monetary expansion leading to even higher domestic inflation and more negative real interest rates from the perspective of local

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6. Lithuania's euro aspiration was not rejected primarily because of the 0.1 percentage point higher inflation than the inflation reference value, but largely because of concerns over inflation sustainability. The Lithuanian authorities themselves forecast a rapid increase in inflation at the time of the 2006 assessment.

borrowers. Since credit was supplied by foreign banks – which did not have to rely on raising funds on local markets – supply was more or less unlimited as long as nominal interest rates were attractive.

With negative real interest rates associated with foreign borrowing, it should be no surprise that lending to the private sector increased rapidly in most fixed exchange rate countries [Table 3.2], such as Bulgaria, Estonia and Latvia<sup>7</sup>. Inflows lasted for several years before the crisis and, as a result, private-sector external debt built up much faster in these countries than in, for example, Albania, the Czech Republic, Poland and Slovakia<sup>8</sup>, four floating exchange rate countries. With substantial negative real interest rates, investors looked for real assets to hedge against inflation and, unsurprisingly, the expansion of credit was highly correlated with the pre-crisis boom in property prices. Domestic interest rates were closer to domestic inflation rates, so the incentives to borrow in domestic currency were not as great as borrowing in foreign currency.

Table 3.2 suggests that fixed exchange-rate regimes contributed to the build-up of macroeconomic imbalances and to distortions in the allocation of capital, especially among EU members. Strikingly enough, fixers even experienced higher inflation on average. The correlation between exchange-rate regimes and developments in the net foreign-asset position was however not perfect. There are even a couple of fixed exchange rate countries in which foreign debt has not yet reached worrisome levels. Data suggest that countries closer to joining the euro, or committed to joining it as soon as possible, such as Bulgaria and Croatia, experienced a greater build-up of foreign debt than countries with weaker prospects of EU/euro-area admission. But here again there are exceptions, such as Serbia, a floating-rate country with weak EU admission prospects, which inherited a large external debt (above 100 percent of GDP) from the fixed exchange-rate period. This first declined during the floating exchange-rate period (to 59 percent of GDP by 2004), but subsequently increased again (to 71 percent in 2008 and even higher afterwards).

### 3.2.3 Crisis shock and crisis responses

When the global financial crisis hit, the credibility of exchange-rate pegs came under fire as investors and consumers lost confidence in countries with high debt levels

7. Rosenberg and Tirpák (2008) analyse the determinants of foreign-currency borrowing in the new member states.

8. Slovakia had a floating exchange rate before joining the ERM-II in 2005, but even within ERM-II period the currency behaved like a floating rate till the summer of 2008, when the conversion rate was announced. During the ERM-II period, the Slovak koruna appreciated by about 25 percent against the euro.

Table 3.2: Some key indicators of CESEE countries with fixed and floating exchange rates

	Countries with floating exchange rates			Countries with fixed exchange rates		
	All	EU	Non-EU	All	EU	Non-EU
Current account balance/GDP, 2007 (%)	-6.6	-6.7	-12.0	-11.8	-17.3	-14.1
Inflation, average of 2004-08 (%)	5.5	4.7	7.3	5.4	6.2	5.6
Credit/GDP, change from 2004-08 (percentage points)	20.5	20.7	19.0	32.8	37.4	34.8
FDI to finance and real estate sectors, 2007 (% of total FDI stock)	26.5	30.6	5.7	40.2	44.8	34.4
Gross external debt, 2009 (% of GDP)	78.8	86.8	38.0	95.6	123.6	80.8
Real interest rate, average of 2004-08 (%)	1.6	1.4	2.0	-1.6	-2.5	-1.0
GDP growth, 2009 (%)	-2.9	-4.1	0.2	-8.2	-11.9	-6.1
Change in unemployment rate from 2007-10, (percentage point)	1.5	2.5	-0.8	3.9	8.9	-0.4

Source: Authors' calculations.

Note: EU floaters: Czech Republic, Hungary, Poland, Slovakia (note that Slovakia had a *de-facto* floating exchange rate until July 2008), Romania; non-EU floaters: Albania and Serbia; EU fixers: Bulgaria, Estonia, Latvia, Lithuania, Slovenia; non-EU fixers: Bosnia & Herzegovina, Croatia, Macedonia (FYR), Montenegro, Ukraine (note that Ukraine had a fixed exchange rate until November 2008).

(especially in BB5, Croatia and Serbia) and particularly in those with banking sector vulnerabilities. As global trade collapsed and many countries with floating exchange rates saw their currencies falling substantially against the euro (see Figure 3.1), similarly to some floaters in Latin America and Asia, fixers lost competitiveness vis-à-vis floaters. Furthermore, confidence in fixed exchange-rate regimes was affected.

The collapse in confidence in the fixers with big current-account deficits triggered declines and, in some cases, reversals of capital inflows, and huge current-account deficits decreased or turned into surpluses within a very short time. Collapsing imports were associated with rapid declines in investment and consumption in the private sector, the impact of which went far beyond the first-round effects of lost imports<sup>9</sup>. The real slump was exacerbated by a credit crunch and sharp cuts in government expenditure in response to falling revenues and the unavailability of private deficit financing. As a result, some of the fixed exchange-rate countries, notably the Baltic countries and Ukraine, suffered major swings in real GDP growth – beyond those experienced in recent history in most crisis episodes around the world. In the Baltic countries this was linked in no small part to the decision to keep the exchange-rate policy unchanged, and to focus on so-called ‘internal’ devaluations, ie domestic price and wage cuts<sup>10</sup>. The initial drop in GDP was even higher in Ukraine, a country that moved from a dollar peg to a floating rate regime in late 2008, than in the Baltics. But the Ukrainian economy began to recover already in the second quarter of 2009, while in the Baltic countries, recovery had not yet started by the first quarter of 2010 (Figure 1.8). In addition, fixed exchange-rate countries face uncertainty, and their current regimes lack credibility because they hamper investment and increase precautionary savings at a time when there are few external or fiscal drivers of growth.

When the crisis hit and confidence vanished, there was an intense debate about currency devaluation versus internal devaluation. There was also a serious disagreement between the EU and the IMF on this issue about Latvia, a country that received emergency funding both from the EU and the IMF<sup>11</sup>. According to IMF (2008), the

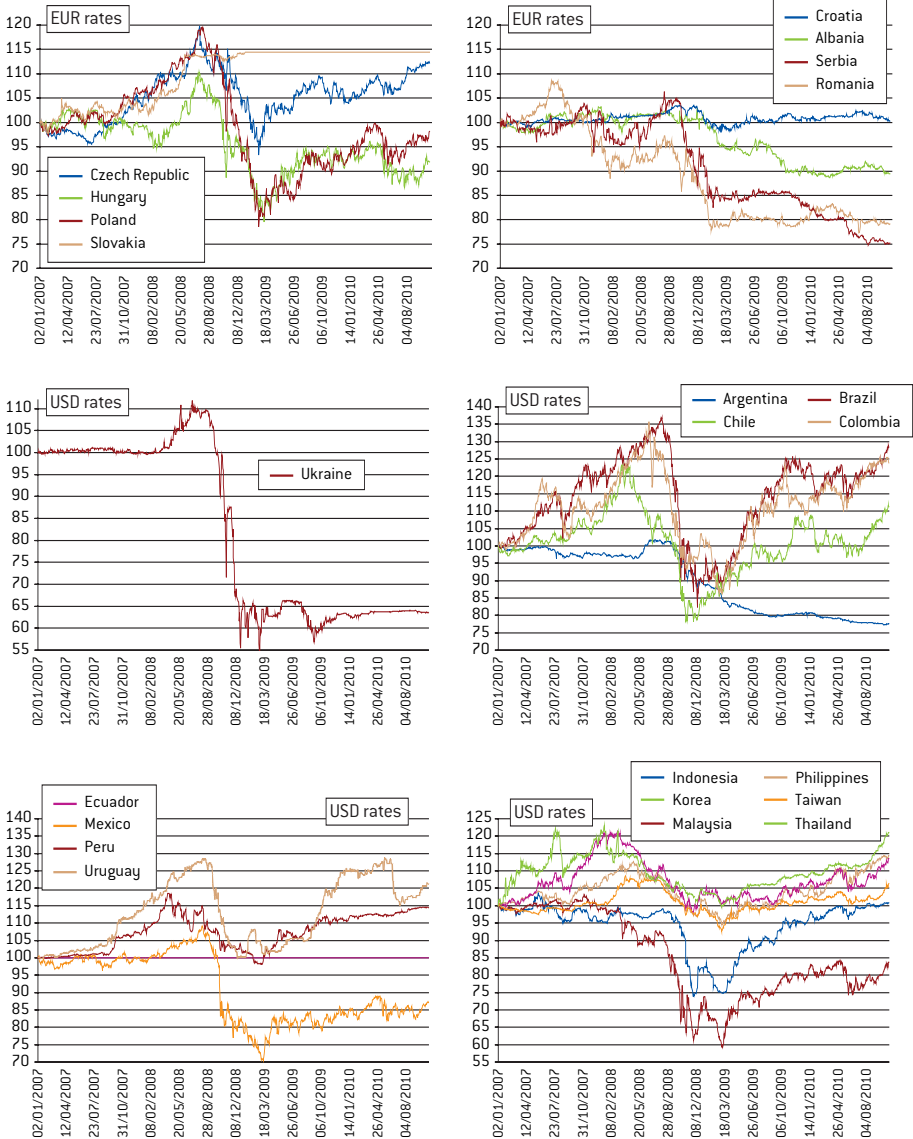
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9. Becker (2008) discussed the risks of rapid current-account reversals in connection with the adjustment programmes in the Baltic countries.

10. Becker (2009a) criticises the IMF-supported adjustment programme for Latvia. Several authors, eg Becker (2009b), Yeyati (2009) and Weisbrot and Ray (2010) detail the problems with internal devaluations in general and with Latvia’s case in particular.

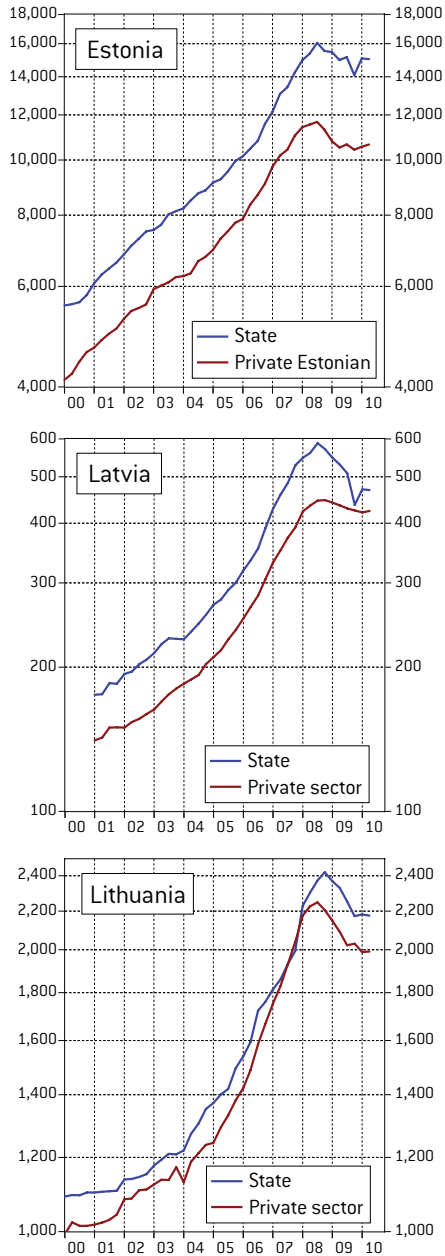
11. The IMF proposed devaluation, or at least allowing the exchange rate to depreciate to the weakest possible position within the ERM-II band (Latvia unilaterally maintained a +/- 1 percent wide band within the official +/- 15 percent ERM-II exchange rate band), and also suggested that an accelerated euro-area entry process would boost confidence in the new exchange-rate level. But the EU was in favour of maintaining the prevailing practice and ruled out accelerated euro-area entry (IMF, 2008).

Figure 3.1: Nominal exchange rate against the euro or the dollar (1 Jan 2007 = 100), 1 Jan 2007 to 27 Sept 2010



Source: Datastream. Note: Values over 100 indicate appreciation relative to January 2007. The scaling of the first two panels is identical, but the other panels have different scales. CESEE countries with fixed exchange rates are not shown.

Figure 3.2: Average monthly nominal wages in the Baltic countries, 2000Q1-2010Q2



Source: Central statistical office of the three countries. Note: Seasonally adjusted series are shown (we used the Census X12 method).

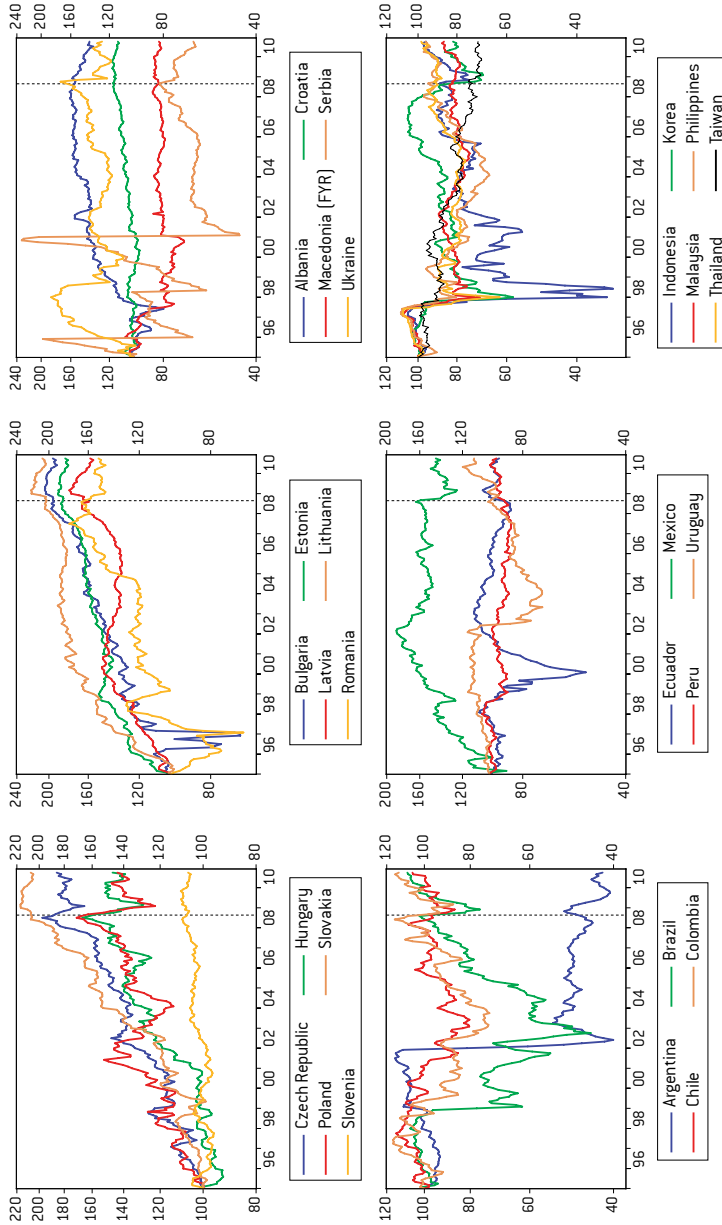


main advantage of devaluation/widening of the exchange-rate band is that it should eventually deliver more rapid economic recovery, due to more rapid improvements in competitiveness. However, growth would be depressed in the short run by balance-sheet effects (since both households and the corporate sector had large unhedged foreign-currency liabilities). Devaluation would incur bank restructuring costs upfront and new bank lending would fall, slowing economic activity and creating negative feedback loops, including renewed currency pressures. Also, possible regional contagion to other fixed exchange-rate countries, in particular to neighbouring Estonia and Lithuania, would have made it difficult for foreign parent banks to support their subsidiaries. But Becker (2009) has also highlighted that currency devaluation and internal devaluation eventually lead to the same debt/income ratio (currency devaluation increases the domestic currency value of foreign currency debt, while internal devaluation decreases domestic income). The key differences between the two options are timing (since a currency devaluation is immediate, while internal devaluation takes a long time) and magnitude (currency devaluation may lead to overshooting, while internal devaluation may not bring adequate adjustment). Indeed, in the three Baltic countries public sector average nominal wages have fallen considerably, but the adjustment in the private sector, which is much more important from the perspective of international competitiveness, is slow (Figure 3.2). At the same time, the rise in the unemployment rate was huge, suggesting that the labour market adjustment was mainly felt through job losses, rather than through changes to the average wage, which is unfavourable.

Developments were less dramatic in the Balkans, but followed more or less the same path. Romania and Serbia, countries with flexible exchange rates, let their currencies depreciate and went for stand-by agreements with the IMF (with EU participation, though its contribution was rather minor in the case of Serbia, which is not an EU member state). Bosnia and Herzegovina, a currency-board country, supported its adjustment policies with a stand-by agreement with the IMF. Other countries with fixed exchange rates also chose to rely on fiscal-policy adjustment. A difference, however, is that central banks in the Balkans suffer from low credibility. The attraction of flexible exchange-rate regimes remains therefore limited.

On the whole, flexible exchange rates proved to be shock absorbers. However, developments within the floaters' group differed depending on vulnerabilities and the consequent policy reaction to the crisis. In Albania, the Czech Republic and Poland, the real exchange-rate depreciation was not counteracted by interest-rate hikes and fiscal tightening, while it was in Hungary, Romania and Serbia. Again, these differences reflect pre-crisis vulnerabilities: stronger economies could let market adjustments

Figure 3.3: Real effective exchange rates based on consumer prices (January 1995=100), January 1995 - October 2010



Source: Authors' calculation using data from the IMF International Financial Statistics (USD exchange rates and consumer prices), Datastream (USD exchange rates for periods that are missing from the IMF database), National Statistics of the Taiwan Province of China (USD exchange rate and consumer price index for Taiwan). Note: the real effective exchange rate is calculated against 143 trading partners of the world, which cover, on average, 98.8 percent of foreign trade. Weights are derived on the basis of Bayoumi, Lee and Jaewoo (2006). The vertical dashed line indicates September 2008. Consumer prices are available till July 2010 in most cases; we have projected the consumer prices index till October 2010 by assuming that 12-month inflation rate does not change between the latest available observation and October 2010.

take place unhindered and even support recovery with discretionary fiscal stimulus and interest rate policy (Darvas, 2010a). Also, capital flows resumed faster – the Polish central bank even intervened on the foreign-exchange market in April 2010 to slow down the appreciation of the zloty.

However, as IMF-led financing programmes for Hungary, Romania and Serbia advanced and global market sentiment improved, interest rates fell in these three countries as well and exchange rates appreciated.

In the case of Ukraine, a country that moved from a dollar peg to a float in response to the crisis within the framework of an IMF programme, the depreciation was substantial, but the exchange rate became broadly stable after the sharp initial adjustment (Figure 3.1). IMF/EU financing programmes, interventions in foreign-exchange markets, the Vienna Initiative (discussed in chapter 4), and the improvement in global economic outlook and market sentiment did contribute to exchange rate stabilisation, even in the CESEE region in some cases. Excessive depreciations could, of course, have negative effects on public and private balance-sheets and this may continue to be the case in Ukraine, where the exchange-rate stabilised at a much depreciated level. In general, however, exchange rate adjustments have dampened the impact of the crisis and whenever depreciation remains a lasting phenomenon, it can be expected to support faster and stronger recovery.

### 3.3 Exchange-rate policy and the path to the euro

Good exchange-rate management is not a silver bullet that will ensure a stable and prosperous economy for a country, and the choice of exchange-rate regime is not a trivial issue. The choice entails important trade-offs between potentially conflicting goals; eg the importance of a nominal anchor and stability versus independent monetary policy to deal with inflation and business-cycle fluctuations. The choice of a regime also has implications for a country's capacity to adjust to competitiveness pressures ('internal adjustment' versus currency devaluation). Finally, an inappropriate exchange-rate policy may reduce the effectiveness of other economic policies and may distort investment incentives, thereby affecting sectoral developments and ultimately potential output growth. For all these reasons unsuitable exchange-rate policies entail high costs – as amply demonstrated by history, including the experiences of CESEE countries.

In a recent paper Ghosh, Ostry and Tsangarides (2010) provide an overview of the issues surrounding exchange-rate regime choice. Their general conclusion is that a

careful examination of both *de facto* and *de jure* classifications of exchange-rate regimes leads to a more nuanced view of the pros and cons of alternative regimes<sup>12</sup>. All regimes have advantages and disadvantages in terms of economic outcomes. A few specific points are worth highlighting in this discussion. First, pegged exchange rates tend to lead to higher growth, but only if the currency does not become overvalued and competitiveness is lost. Pegs can also be good for trade and capital flows. However, there are three major problems with fixed rates: they constrain other macroeconomic policies (beyond the 'impossible trinity' of fixed exchange rates, free capital flows, and independent monetary policy) and may lead to pro-cyclical fiscal policy; they make countries more susceptible to financial crises (sudden stops, debt and banking crises); and they make external adjustment more abrupt with greater costs to the real economy.

Are these findings relevant for EU countries given that the EU treaty stipulates that all member countries (except Denmark and the UK, which negotiated exemptions) should join the euro-zone once they meet the convergence (Maastricht) criteria (Box 3.1)? The answer is clearly yes, since the transition process from an independent currency to euro membership can be long and difficult and has to be managed well. Key issues are, first, what the appropriate macroeconomic framework should be, including what exchange-rate regime to use, to ensure a successful transition to the euro, and, second, are the current convergence criteria sufficient or even useful in this regard in light of the recent boom and bust among most of the euro outsiders?

### 3.3.1 Exchange-rate regime choice for catch-up economies

All CESEE members of the EU are obliged to join the euro area when they fulfil the convergence criteria. The literature is abundant with research papers and policy documents about the merits and drawbacks of joining the common currency. The European Commission offers the following quotes on 'Why the euro'<sup>13</sup>:

*'The euro was created because a single currency offers many advantages and benefits over the previous situation where each Member State had its own currency. Not only are fluctuation risks and exchange costs eliminated and the single market strengthened, but the euro also means closer cooperation among Member States for a stable currency and economy to the benefit of us all.'*

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12. The key conclusions are summarised in Ghosh and Ostry (2009).

13. [http://ec.europa.eu/economy\\_finance/the\\_euro/the\\_euro6476\\_en.htm](http://ec.europa.eu/economy_finance/the_euro/the_euro6476_en.htm).

**BOX 3.1: CONVERGENCE ('MAASTRICHT') CRITERIA**

The Maastricht criteria set the path to euro accession and are supposed to ensure that a country is ready to join the euro. The criteria require:

- 1 The achievement of a high degree of price stability, measured as at most 1.5 percentage points higher consumer price inflation than that of the average of the three best performing member states;
- 2 The sustainability of the government financial position, as reflected by the lack of an excessive deficit procedure, which, in turn depends on the fulfilment of two criteria:
  - 2a The budget deficit should not be higher than three percent of GDP, or the deviation from this value should not be significant, should be temporary, and should be caused by exceptional circumstances,
  - 2b Government debt should not be higher than 60 percent of GDP, unless *'the ratio is sufficiently diminishing and approaching the reference value at a satisfactory pace'*;
- 3 Observance of the normal fluctuation margins provided for by the exchange-rate mechanism of the European Monetary System, for at least two years, without devaluing against the euro, and
- 4 The long term interest rate should not be higher by 2 percentage points than the that of the average of the three best-performing member states in terms of price stability.

The first and the fourth criteria are benchmarked on the 'three best-performing member states of the EU in terms of price stability', which have been interpreted in special ways. The treaty does not specify how to determine the 'three best performers'. Up to 2009 this been defined as the three EU countries having the lowest non-negative inflation rates. However, in the 2010 the Convergence Reports excluded only one country with a negative inflation rate, but not the others.

The exact interpretation of the third criterion is also not specified in the treaty. In practice it has been interpreted in an asymmetric way: exchange-rate depreciation is considered as the violation of this criterion, but exchange-rate appreciation is not. A country receiving international balance-of-payments support was also assessed to have violated this criterion even if the exchange rate has not depreciated (Latvia), because such support was the reflection of 'severe tensions' and

has likely contributed to the avoidance of exchange-rate depreciation.

The first and fourth criteria are examined using the average of the most recent 12-month data at the time of the assessment reports; the second criteria are considered for the most recent calendar years; while the third one considers a two-year long period. In addition to analysis of past data, the convergence reports also take into consideration the sustainability of convergence; though neither the treaty, nor its protocol, define how to assess that. In practice, forecasts are considered up to the end of the year in which the assessment is made.

In addition to these criteria, the assessment reports by the ECB and the European Commission *'also take account of the results of the integration of markets, the situation and development of the balances of payments on current account and an examination of the development of unit labour costs and other price indices'*. Further, *'these reports shall include an examination of the compatibility between the national legislation of each of these Member States, including the statutes of its national central bank, and Articles 130 and 131 and the Statute of the ESCB and of the ECB'*.

Source: Treaty on the Functioning of the European Union and convergence reports of the European Commission.

The Commission ends with a strong statement on the role of the euro:

*'The euro, a symbol of European identity, is one of the strongest tangible symbols of European integration and the shared values of Europe, the European nations and Europeans themselves'*.

There is little doubt that the euro offers many benefits along the lines of the Commission's own declarations and this implies that keeping countries out of the euro area, when it would be beneficial overall that they join the EMU, carries a cost. There are also potential downsides associated with the adoption of euro, including: the loss of independent monetary policy, which makes it more difficult to deal with non-synchronous business cycle/asymmetric shocks; the need for inflation to rise above the euro-area average for the real appreciation implied by the Balassa-Samuelson to take place, which in turns may imply that the real interest rate falls below equilibrium; no exchange rate to restore international competitiveness in case of excessive real appreciation; limited ability to inflate away domestic debt; and no domestic control over lender-of-last-resort issues<sup>14</sup>. For these reasons it is important

to set out criteria for assessing the net benefit of euro-area entry and to clarify which supporting policies will be needed to safeguard stability and the sustainability of participation in the monetary union once a country has joined the euro.

The one issue that receives the most attention is the loss of independent monetary policy once the euro replaces a domestic currency. This can be a problem if a country's business cycle is not synchronised with the average euro-area cycle that determines the euro area's monetary stance. Lack of synchronisation could amplify a slump or boom depending on where the country's business cycle is relative to the rest of the euro-area countries. However, business cycle synchronisation may be endogenous to the exchange-rate choice, and in particular, euro accession may lead to more synchronised cycles<sup>15</sup>.

An issue of relevance for many CESEE countries is the relevance of the Balassa-Samuelson argument for real appreciation as an economy develops and the income level converges to richer (euro-area) countries. If there were indeed a need for a real appreciation of CESEE's exchange rates, this would imply that with a fixed exchange rate, be it the euro or a fixed domestic currency, the adjustment would have to come through inflation being higher in the CESEE than in the rest of the euro area. To the extent that this real appreciation reflects catching up and productivity growth, it is not a problem for competitiveness and should not motivate any policy actions to try to offset this higher inflation rate<sup>16</sup>. There are also studies that suggest that this effect is relatively modest, in the order of 0.4 to 2.4 percent per annum (Égert, 2007), which would imply negligible effects on the euro area's aggregate inflation rate and would therefore not be a cause for concern among policymakers in the ECB.

However, even if inflation is a pure reflection of the Balassa-Samuelson effect, it pushes down the real interest rate and can and in fact did lead to higher domestic demand and consequently further inflationary pressures. Indeed, during the pre-crisis boom, inflation differentials were far beyond productivity growth in a number of CESEE economies. Not surprisingly, this problem was greatest among the countries with fixed exchange rates, because in floating exchange rate countries the real appreciation can also be accommodated by nominal exchange-rate appreciation. Unit labour costs (ULC) thus increased significantly in fixed exchange-rate regime coun-

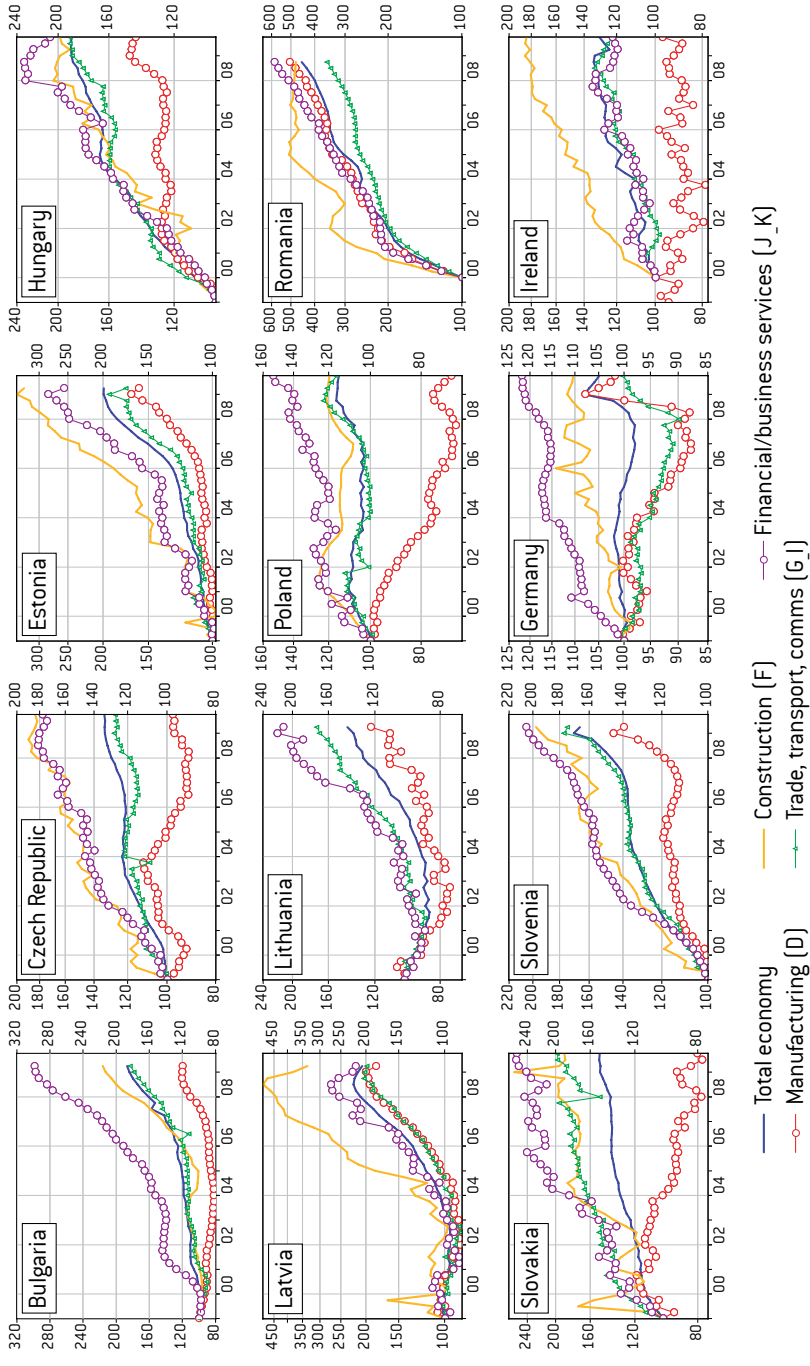
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14. See a comprehensive discussion of these issues for example in Darvas and Szapáry (2008).

15. See Larsson, Gaco and Sikström (2009) for a recent discussion of business cycle synchronisation.

16. Breuss (2003) concluded that Balassa-Samuelson effects should not preclude countries in the region from joining the EMU since the effects are likely to be small and where they reflect productivity gains do not require a policy response.

Figure 3.4: ULC by sectors, 1999Q1-2009Q4, 2000Q1=100



Source: OECD.



tries, with the construction sectors in Estonia and Latvia having witnessed tripling and quadrupling of ULC in less than a decade (see Figure 3.4), but ULC has also increased sharply in the manufacturing sector in Estonia and Latvia. Yet again a floating exchange rate is not a panacea, since ULC has also increased rapidly in Romania. But floaters on average performed better. Manufacturing ULC declined in Poland and Slovakia and was relatively steady in the Czech Republic. Figure 3.4 also depicts ULC developments in Germany, the main trading partner of CESEE countries, and in Ireland, a country that also experienced a housing boom before the crisis. The German ‘internal devaluation’ is clearly visible. In Ireland, while total economy ULC has increased considerably, ULC in the manufacturing sector has fallen somewhat (Darvas, 2010b). Consequently, unlike the Irish economy, many CESEE countries also suffered from a loss of competitiveness in this sector<sup>17</sup>.

The crisis has demonstrated that it is important that euro outsiders with significant trade with the euro area should not allow their currencies to appreciate in real terms too much against the euro. If the catch-up country with a fixed exchange-rate regime is unable to prevent excessive real appreciation, it will sooner or later face a painful policy dilemma whether to devalue the currency or to deflate wages and prices. Ukraine moved to a floating rate, but all other countries that had various kinds of fixed exchange-rate regimes and high current-account deficits before the crisis kept their pegs and opted for ‘internal devaluations’. The latter option may not prove to be sufficient in some countries and could still lead to disorderly exchange-rate collapses, or a long period of stagnant economic growth, perhaps after the crisis-induced negative output gap corrects (Darvas, 2009a).

Different measures could be applied to protect the currencies of non-euro area CESEE countries from excessive real appreciation. One important driver of appreciation has been the housing bubble fuelled by domestic credit expansion, which entailed rapid wage and price inflation. This cannot be addressed with standard monetary tightening under a fixed-rate regime and capital mobility. Alternative measures to control credit expansion will probably need to be coordinated at the EU level given the significance of cross-border financial flows. However, domestic policymakers could potentially use taxes to reduce demand for credit in specific sectors prone to speculative bubbles, such as real estate.

All exchange-rate regimes have pros and cons, but being a euro outsider with a fixed exchange rate is a bad middle ground for catch-up economies; countries do not enjoy

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17. Allard (2009) looks at competitiveness in CEE countries after EU accession.

the shelter, stability and reduced transaction costs of euro membership, nor do they reap the benefits of independent monetary policy or an exchange rate that can adjust. In some cases, eg in the Balkans, fixed exchange rates are preferred because the monetary and fiscal policies lack credibility<sup>18</sup>. Therefore, enhanced efforts to improve policy credibility, at least to the degree that the floating exchange-rate Albania and Serbia enjoy, are badly needed in order to widen the spectrum of possible exchange-rate management practices.

### *3.3.2 The crisis in the euro area and implications for the EU and euro outsiders*

The crisis in the euro area that erupted in 2010 brought to the fore policy issues that had been known and were addressed in EU treaties and economic legislation, but it has also brought out other issues that received significantly less attention in the past<sup>19</sup>. These include:

- Market perceptions of public-debt unsustainability and the pricing of sovereign default, and crisis resolution for fiscally irresponsible countries;
- The build-up of excessive imbalances, competitiveness crises and the lack of sufficiently binding mechanisms for economic-policy coordination;
- Divergences arising from asset prices and private-sector debt accumulation;
- The discrepancy between banking-sector integration and the weaknesses of the EU framework for regulation, supervision, and crisis resolution;
- Public-finance vulnerabilities arising from contingent liabilities.

Fiscal policy is the issue that is directly addressed by the Stability and Growth Pact, which in turn is an element of the Maastricht criteria (Box 3.1). Putting constraints on fiscal policy makes sense in a currency union since it affects inflationary pressures that have implications for real exchange rates, competitiveness and public-debt sustainability. The size of fiscal deficits (and the related evolution of public debt) is something domestic policymakers can (supposedly) determine using appropriate policy actions, so it also makes sense in terms of implementation and accountability. Furthermore, the limited fiscal union (as reflected by the EU budget), the lack of a cyclical fiscal redistribution mechanism within the EU, the pre-crisis lack of an EU

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18. For countries in the Balkans early euro adoption is not a feasible option. The exceptions being unilateral euro-isation by Montenegro and Kosovo, but the ECB and the EC have repeatedly ruled out the acceptance of similar moves by other countries.

19. Furthermore, the persistent but more 'silent crisis' of enduring low economic growth rates inside the euro area in eg Italy and Portugal, which is most likely the result of joining the euro area at overvalued exchange rates and inability to adjust inside, has also important implications for potential euro newcomers.

instrument to support euro-area countries facing problems in financing fiscal deficits<sup>20</sup>, and the inability to inflate the public debt, all call for strict limits on national public finances. However, if domestic policymakers do not take this seriously and even choose to misreport their fiscal operations, as has been the case with Greece, the EU has only limited mechanisms for responding. The euro-area crisis therefore brings out the old wisdom that prudent fiscal policy is needed to support a fixed exchange rate and to ensure fiscal sustainability more generally.

In contrast to fiscal policy—which has received ample attention and is at the heart of the treaties regulating both entry into and membership of the euro—policies that affect the private sector have received little attention. Nevertheless, problems in the private sector (notably in Ireland and Spain) with cheap credit and credit expansion, real-estate and construction booms with corresponding wage increases and labour moving into the sector, created vulnerabilities in the economy that also affected the public sector. When financial flows halted, the bubble burst which resulted not only in weak financial institutions but also a real economic slump with unemployment and rapidly deteriorating fiscal balances.

Private-sector behaviour does not only affect long-run fiscal sustainability through its impact on the real economy and on fiscal balances. It also has an effect on public debt dynamics through the bailouts the government undertakes to rescue private-sector financial institutions. These contingent liabilities have in many countries contributed significantly to increases in public debt-related worries about fiscal sustainability.

For euro outsiders the crisis in the euro area has shown that removing the option of adjusting a nominal exchange rate may be very costly in terms of fiscal adjustment, if, before the crisis, it was not accompanied by efforts to limit excessive demand in the private sector, even if fiscal policy is broadly in order. However, limiting excess demand in the private sector is not easy to achieve for national governments that have surrendered their power over monetary policy in an environment with free capital mobility. Interestingly, housing and credit booms in Ireland and Spain and in fixed exchange-rate CESEE countries have been remarkably similar, suggesting that the fall in real interest rates as the result of exchange-rate fixity, financial integration and economic catch-up matters both inside and outside the euro area.

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20. The agony of the Greek fiscal problems in first half of 2010 and the difficulties in putting together an external financing problem call firmly for institutional changes in euro-area governance and institutions that can help to avoid the emergence of such situations, but also help to resolve them without creating moral hazard.

Euro outsiders should therefore be careful before fixing the exchange rate and should allow as much flexibility as possible on the way to euro adoption, but in any case should introduce measures preventing the emergence of unsustainable credit booms. As we shall discuss in more detail in the chapter on financial stability, host-country authorities may not be effective in this effort in an integrated Europe.

The crisis in the euro area, in particular the competitiveness problems of Spain, Portugal and Italy and the inability of these countries to adjust their competitiveness inside the euro area<sup>21</sup> (in contrast to eg Finland, Germany, Ireland and Austria, where manufacturing ULC was falling, see Darvas, 2010b), raises a crucial question: should the criteria for the optimal currency area (OCA) be fulfilled *ex ante*, ie before a country enters the euro area, or is it sufficient to expect that they will be fulfilled *ex post*, ie euro admission will create structural changes in the economy that will make the country suitable for the monetary union, even if it had not been before? While the literature on OCA emphasises several factors, such as the synchronisation of business cycles, the role of asymmetric shocks, product and labour-market flexibility and trade and financial integration, a crucial issue relates to the sustainability of the current account and the ability of the country to adjust to competitiveness pressures (Box 3.2). The inability of Mediterranean countries to adjust to competitiveness pressures inside the euro area suggests that it would be better for euro newcomers if (i) OCA criteria are satisfied *ex ante* and (ii) there are policy instruments to guide the eventual need to adjust real exchange-rate divergences *ex post*.

### 3.4 Policy lessons and proposals at national and EU level

It is by now obvious that the pre-crisis boom was driven by too-rapid credit expansion linked to foreign capital inflows that fuelled wage and price increases in several CESEE countries. These factors led to imbalances that were forcibly corrected within a short period of time in response to the crisis. In the medium and long run, however, policy adjustments will have to be made in order to ensure the stability of the monetary union. This has implications for various policies and institutions both at national and EU levels, but the Maastricht criteria should also be adapted.

#### 3.4.1 Maastricht criteria

At some stage, all EU member states, except for Denmark and the UK who have treaty-based 'opt-outs', are supposed to join the euro, guided by the criteria set out in the

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21. Blanchard (2007) discusses the problems of adjustment within the euro.

Maastricht agreement [Box 3.1]. Several communications from the ECB have stressed that all countries that want to adopt the euro should fulfil the Maastricht criteria, because this is based on equal treatment, stability of the euro, and is in the countries' own interest<sup>22</sup>. There are however several problems with these criteria.

A first problem with the Maastricht criteria is that they do not address many of the important issues that have been discussed above: there is nothing in them that *directly* ensures that an applicant country satisfies the criteria for optimum currency areas or that Balassa-Samuelson effects will not be destabilising, ie that higher inflation implied by economic catching-up and exchange-rate fixity and the consequent fall in real interest rate will not create destabilising credit booms.

It could be argued that the Maastricht criteria address some of the potential problems

#### BOX 3.2: OCA AND SUSTAINABILITY

The conjunction of pre-accession and pre-euro adoption criteria (Copenhagen and Maastricht criteria) together with the EMU monetary policy and Stability and Growth Pact rules does not ensure that the nominal and the real exchange rates will not be misaligned either *ex ante* or *ex post*. In other words, countries adopting the euro may not satisfy the Optimal Currency Area criteria and the euro-area governance structure may not be suited to maintaining the optimality of the currency union. A useful indicator of misalignment or lack of optimality is the development of external balances in terms of the sustainability of the current account, which should be assessed not just at the point of euro adoption, but also during the whole preceding period, and even after a country enters the euro area. Indeed, the Maastricht criteria require the assessment of the current account [Box 3.1], but this has not received sufficient attention. Better methodologies for assessing the sustainability of the current account and net foreign-asset positions should be developed.

The reason why the set of all existing criteria do not ensure that foreign-debt developments will be sustainable is the fact that they do not exclude the emergence of private-debt bubbles. The risk to those developing is especially high if a country adopts a fixed exchange rate with euro adoption as the only exit option. That suggests that in the process of euro adoption flexibility of the exchange rate should be preserved as long as sustainability of the external balances is not ensured.

22. See for example Stark (2008) and Tumpel-Gugerell (2009).

in an *indirect* way. Darvas, Rose and Szapáry (2007) have shown that there is an indirect relationship between the Maastricht deficit criterion and business-cycle synchronisation, since the Maastricht criteria limits idiosyncratic fiscal shocks. Furthermore, the simultaneous requirement of low inflation and exchange-rate stability can rule out countries with unsustainable current-account positions: both inside and outside the euro area, unsustainable current account developments were accompanied by high inflation. It could also be argued that the EU membership process, ie the Copenhagen criteria, by itself makes countries part of an optimal currency area.

However, although there are certainly elements in both the Maastricht and the EU membership process that mean countries will be more likely to fit into a common currency area, they are by no means sufficient. Furthermore, they can be circumvented. Slovakia was able to join the euro by letting its currency appreciate by 25 percent in the final two years before the assessment. This is formally allowed by the Maastricht criteria, but raises a question about the sustainability of convergence as such a massive nominal appreciation was in fact needed to counterbalance inflation induced by the Balassa-Samuelson effect. And since the inflation criterion is assessed only for one year, countries might be tempted to resort to techniques to squeeze in temporarily under the reference value. Indeed, considering the first eleven countries that joined the euro area in 1999, all of them met the inflation criterion in 1997 and 1998, but six of them failed to meet it in 2000 and similarly large violations occurred in later years as we shall discuss later (Darvas, 2010d).

Rules for dealing with asynchronous business cycles and Balassa-Samuelson effects would be either hard to design or politically infeasible; first, it is not known how to synchronise business cycles; and second, having criteria not properly considering the Balassa-Samuelson effects would preclude any low-income, catch-up economy from adopting the euro. Ironically, the criteria can be regarded as a *de facto* equivalent to a criterion on income levels, which is not consistent with the principle of equal treatment.

A second problem with the Maastricht criteria is that they do not ensure that labour and product markets are flexible enough to cope with adjustment in competitiveness when needed. True, improvements in the flexibility of labour and product markets are in the interests of all countries, irrespective of whether or not they want to join a monetary union. They are however of special macroeconomic relevance once a country has joined the euro and, in this respect, the new member states whose labour and product markets are often more flexible have an advantage that is not sufficiently recognised.

A third problem is that with free capital mobility there is little fiscal policy can do to control inflation and interest rates. Outsiders who want to join the club cannot control their countries' path towards euro adoption, which makes them vulnerable to global economic developments and mood swings on capital markets. To some extent the inconsistent goals regarding inflation, exchange rates and interest rates could be viewed as an attempt to keep out countries that need real appreciation. However, this is a very indirect and inefficient way of dealing with this issue and has clearly led to poor domestic policies in the run-up to the crisis and then also when dealing with the crisis. For example, in some fixed exchange-rate EU member states the overriding goal of euro-area entry was an important reason for the maintenance of the fixed exchange-rate regime.

A fourth problem is that the EU's expansion from 15 to 27 members has made the criteria tougher for new EMU entrants to meet (Lewis and Staehr, 2010), because two criteria are benchmarked on the three best-performing EU member states: the three best performers among 27 countries are expected to generate a lower average than the three best performers among 15 countries, according to the current interpretation of the 'three best performers' (see later). The current interpretation of the treaty is thus contrary to the principle of equal treatment. Furthermore, a number of current members did not fulfil all of the criteria when they entered and, what is more, violated several criteria after their entry. Today and for many years to come several euro-area members will continue to miss the fiscal targets. Darvas (2010d) has also demonstrated that, on average between 1916 and 2009, one third of US metropolitan areas would fail to qualify to be members of the US monetary union by applying the currently used inflation criterion to the US. Furthermore, the interest-rate criterion became an extremely volatile measure (fluctuating between six and 12 percent from one month to the other) because of the adopted interpretation of 'three best performers in terms of price stability'. Such volatility is highly undesirable, because even if the interest rate of an applicant country will remain stable, luck will be a factor in whether this country meets the interest rate criterion or not.

More generally, one lesson from the crisis is that stricter rules should not apply to euro outsiders at the time of joining, but rather to insiders after they have joined. It is mostly after a country has joined the euro area that its policies can create problems for other euro-area members. Therefore, much more attention should be paid to strengthening the SGP, whereas the interpretation of the Maastricht criteria should ensure equal treatment of all EU countries in the accession process. Furthermore, prudent fiscal policy is only one of a number of necessary conditions for stability. It is not by itself sufficient. Financial regulation, cross-border capital flows, cross-border

der bank ownership, and monitoring of balance-sheets in the private sector have to become part of the policy framework governing the euro area.

There is therefore a need to reform the inflation criterion for entry. Inflation and the interest rate are benchmarked against the 'three best-performing member states of the EU in terms of price stability', which has been interpreted as the three EU countries with the lowest non-negative inflation rates up to 2009. In the 2010 convergence report, the interpretation of the three best-performing countries was changed, but in a manner that did not only bring ambiguity and arbitrariness to the interpretation of this criterion, but also became inconsistent with the ECB's (previous) view of price stability, which excludes price decline (deflation)<sup>23</sup>. All the three 'best performers' had negative inflation rates (Portugal -0.8 percent, Estonia -0,7 percent, and Belgium -0.1%), but Ireland, with an inflation rate of -2.3 percent, was excluded on the account that its inflation rate *'deviates from the euro-area average by a wide margin, and which could hence not reasonably be regarded as a best performer in terms of price stability'* (European Commission, 2010, p 37). Since the euro-area average inflation rate was 0.3 percent at the time of the 2010 assessment, a 2.6 percentage point deviation from the euro-area average should be considered as a 'large' deviation, while a 1.1 percentage point deviation (ie the deviation of Portugal) should not.

The arbitrariness and ambiguity caused by this reinterpretation of the concept of three 'best performers' further calls for giving the concept of three 'best performers' an economically meaningful interpretation. A reasonable alternative would be to consider the three countries whose inflation rates are closest to the euro-area average inflation (Darvas and Szapáry, 2008; Darvas, 2010d).

Short of a formal treaty change, there are two ways to implement changes to the Maastricht criteria. First, the interpretation of the 'three best performers' solely depends on the decision of the European Commission and the ECB and nothing would prevent these institutions from adopting an economically meaningful interpretation. Second, as long as there is a unanimous decision of the Council, the protocol of the current treaty (which describes the measurement of all four criteria) can, and in fact ought to be, changed (Darvas, 2010d)<sup>24</sup>.

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23. See ECB: 'The definition of price stability', available at: <http://www.ecb.int/mopo/strategy/pricestab/html/index.en.html>

24. Furthermore, there is an additional unresolved issue: the conditions for joining ERM-II. Without ERM-II membership a country cannot join the euro area, even if it has a stable exchange rate and meets all other criteria. There should be clear and transparent criteria for joining ERM-II.



### 3.4.2 National policies

The policy choices for countries with fixed exchange rates are very different from countries with floating rates. Although some floating-rate countries may also benefit from the stability that the euro would offer, as long they need to adjust their real exchange rates, the preferred policy for floaters is to stick to the current regime and focus on fiscal, monetary and structural policies as tools to ensure stability, competitiveness and flexibility. Before applying for EMU membership, these countries should ensure that they have set their current accounts on a sustainable path, which will likely be difficult since exchange-rate appreciation prior to euro-area entry is a one-way bet for investors (for all previous admissions to the euro area, the conversion rate was set very close to the prevailing market exchange rate).

For countries with fixed exchange rates the best policies are dictated by country specific factors related to expected euro adoption and the ability to use other policies to revive the economy. There are three options available.

The first is to correct the exchange rate just before euro adoption. This would have been the wise option for Estonia, which will join the euro area in 2011 and where the pace of 'internal adjustment' is disappointingly slow. Unfortunately, such an adjustment was not implemented, but the previous central parity became the conversion rate. The huge pre-crisis current-account deficit has suddenly turned to surplus, but it was a forced adjustment and improvements in competitiveness are badly needed (Darvas, 2009a). The problem with this option is that there is no guarantee that this one-step devaluation will correct the problems that have led to the fixed exchange rate being misaligned in the first place, and therefore misalignments may emerge inside the euro area as well.

The second option is to foster the internal adjustment of the real exchange rate ahead of the moment of actual euro adoption while keeping a fixed link with the euro. This may be easier to justify than it would be once a country has entered EMU. This may be the policy that Bulgaria will follow, because it has a good record of income and wage controls and of running fiscal surpluses.

The third option is to move to a more flexible exchange-rate regime to correct for imbalances and misalignments, but equally importantly to prevent similar imbalances emerging in the future as well. This policy is advisable for those countries in which the 'internal devaluation' progresses slowly. However, devaluation and the fixing of the exchange rate at a devalued level carry a serious risk of loss of credibili-

ty and the consequent balance-sheet effect in highly euro-ised countries will be difficult to manage (see our discussion on external versus internal devaluation in Section 3.2.3).

None of these options is necessarily going to be enough to ensure that a country will join the euro at the moment when it has satisfied not only the Maastricht criteria but also the criteria for optimal currency areas. In light of the inability of Mediterranean countries to adjust to competitiveness pressures inside the eurozone, CESEE countries seeking euro admission should ensure that they do not fall into the same trap. They should apply for euro-area membership only if their historical record clearly indicates that they are able to carry out internal adjustment.

### *3.4.3 Crisis management*

The initial phases of the crisis highlighted two weaknesses with the existing EU framework to deal with (short-term) stabilisation issues. First, the lack of sufficient funds committed in the EU to provide financial assistance to prop up confidence in countries that were facing difficult adjustment programmes. Second, the lack of instruments to efficiently deal with misaligned real exchange rates in countries with fixed exchange rates, including euro-area members. The crisis has also demonstrated the more structural issue of cross-border banking and the lack of a common framework to deal with cross-border banking regulation, supervision and bailouts. This issue is closely linked to both funding for adjustment programmes and exchange-rate adjustments that may have a serious impact on the balance-sheet of financial institutions that then need to be supported by public funds.

As the crisis evolved (but after significant and costly delays), the EU adjusted some of its policies in an appropriate direction. The first step in the right direction was to increase the limit of the EU medium-term financial assistance facility for non-euro-area EU countries from €12 billion to €50 billion (in two steps)<sup>25</sup> and to involve the IMF in the adjustment programmes of three non-euro member states (Latvia, Hungary and Romania). The main advantage of involving the IMF was not in terms of funding of the programmes (although useful) but in terms of having a credible outside partner with ample technical expertise for dealing with economic adjustment programmes in crisis times.

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25. See Darvas (2009b) for the list and assessment of several other actions taken by EU institutions to support crisis-hit CESEE countries.

It was much harder for the EU institutions to let the IMF be involved in Greece, a euro-area country. However, as the crisis there evolved, it became apparent that the alternatives to IMF involvement were not less painful or more attractive. With the risk of the crisis spreading to a wider set of (larger) euro-area countries, the EU member states also agreed on rather substantial increases in the funding available to assist euro-area countries in trouble: the bulk of the new funding commitments, €500bn, is from euro-area governments and from the EU, which is topped up with another €250 from the IMF.

Looking forward, the EU should strive to design a more robust, transparent and predictable set of instruments and policies to deal with economic crises. The instruments could include an extended version of the medium-term financial assistance facility that more closely corresponds to the IMF's precautionary facilities with *ex-ante* conditions to pre-qualify for assistance. Within the EU, the *ex-ante* conditions could be aligned with existing criteria such as Maastricht and SGP to make the framework internally consistent.

#### 3.4.4 The case for EU surveillance

Interactions between countries inside and outside the euro area – the 'ins' and 'outs' – are robust<sup>26</sup>. The 'outs', which are generally small and open economies that are highly integrated with 'ins' (chapter 1) are impacted by economic developments and policies in the 'ins'. But the 'ins' also face several potential costs from the policy choices of the 'outs', including: competitive devaluations by 'outs' that have flexible exchange rates; less stability in trade relations with 'outs'; possibly increased migration flows from 'outs' to 'ins' at a time when unemployment is already high; and a diminishing of the EU as a role model that drives economic and political reforms in and around it.

Ultimately, exchange-rate policies promoted by both the EU and individual member states should focus on four objectives: fostering economic integration, achieving low inflation, preventing financial instability and avoiding distortions in competitiveness. These objectives are related, because low-inflation countries (both outside and inside the euro area) have generally not experienced unsustainable booms and loss of competitiveness. Promoting the correct financial incentives to avoid the build-up

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26. The term 'outs' is used to describe countries that are not part of the euro area and primarily refers to current EU members. However, several aspects of the argument also apply to candidate countries that are strongly economically integrated with the EU.

of unsustainable balance-sheets in both the private and public sectors is always important. The policies that need to support this may however differ before and after entering the euro. In particular, when preparing for euro-area membership, flexible exchange rates could help achieve an external balance with less distorted financial incentives. Within the euro area, stricter application of fiscal sustainability criteria should be combined with improved macro-prudential regulation of private sector financial flows to avoid unsustainable debt dynamics. In light of the crisis, the existing criteria may also need to be complemented by more coordinated fiscal policy as well as income and labour-market policies. These responsibilities fall squarely on the EU and will require serious reforms to financial regulation and how the SGP is designed and implemented. Finally, a framework to deal with supervision and bailouts related to cross-border financial flows should be developed.

The design of policies to ensure that countries can adjust within the euro area is also of utmost importance. Alternative instruments (monitoring of the build up of bubbles, early-warning systems on real exchange-rate developments, income and wage policies, and labour-market flexibility) should be designed, and the responsibility for monitoring and implementation should be distributed between the EU and national levels.

### 3.5 Summary

The global trend of polarisation of exchange-rate regimes, ie the adoption of either hard pegs or flexible exchange-rate systems and the disappearance of intermediate regimes, also characterises CESEE countries. Some countries in the region with reasonably similar situations opted for completely different exchange-rate strategies. The exchange-rate regime choice in itself is not a panacea, since there are both good and bad examples with both fixed and flexible exchange rates. But both the pre-crisis period and the crisis have shown that it is more difficult to be successful in a catch-up economy when the exchange rate is fixed.

Cross-border financial flows resulted in the build-up of vulnerabilities that greatly influenced the cost of the crisis in countries with all kinds of exchange-rate regimes. But these flows and associated imbalances were more pronounced in countries with fixed exchange rates. Fixed exchange-rate countries tended to experience higher current-account imbalances and external debt, the share of loans was larger and the share of FDI was lower in total capital inflows, the composition of FDI inflows was biased in favour of finance and real estate-related activities, credit growth was faster, inflation was higher, unit labour costs rose faster, and real interest rates were lower

than in floating exchange rate countries, on average. These characteristics and vulnerabilities contributed to sharper contractions in real growth and a larger rise in unemployment during the crisis in fixed exchange-rate countries than in countries with flexible exchange-rate regimes.

The key reason behind these differing developments between fixed and floating exchange-rate countries is most likely related to the price level catch-up process, which accompanies economic catch-up. When price level catch-up translates into higher inflation because of the fixity of the exchange rate (as opposed to floating exchange-rate countries, in which the price level catch-up can potentially be accommodated by nominal exchange-rate appreciation as well), higher inflation could lead to lower real interest rates, which can fuel unsustainable credit booms and distort the allocation of capital and labour. The importance of low inflation is also underlined by those three floating exchange-rate countries, Hungary, Romania and Serbia, that had higher inflation rates before the crisis than other floaters and had to rely on IMF/EU emergency financing during the crisis.

Current-account deficits have suddenly corrected and inflation fell everywhere in response to the crisis, as capital inflows stopped or even reversed. But the large stock of private debt and the weak competitive position of several fixed exchange-rate countries will act as a drag on economic growth. There was only one CESEE country, Ukraine, which has moved from a fixed exchange-rate regime to a floating regime in response to the crisis, while other fixed exchange-rate countries in the region are trying to improve their competitiveness through an 'internal devaluation', ie domestic price and wage cuts. While public-sector wages have been cut considerably in some countries, so far the speed of adjustment is slow in the private sector.

Looking forward, national exchange-rate strategies should take into account the problems with fixing the exchange rate too early in the catch-up phase and being stuck with an overvalued exchange rate and large stock of private debt. More generally, economic policy before entering the euro should be guided by standard welfare arguments and not dictated by a specific exchange-rate goal except perhaps in the very short run ahead of the euro accession evaluation. A strategy to deal with potentially volatile capital flows and private-sector imbalances should be in place before the exchange rate is fixed in anticipation of joining the euro.

A strong case can be made for EU surveillance. When the fixity of the exchange rate contributes to the build-up of private-sector vulnerabilities and/or hinders appropriate adjustment, the EU and ECB should discourage exchange-rate regimes and poli-

cies that have euro adoption as the only exit strategy even though euro adoption is a long way off. The ERM II mechanism should be structured in such a way as to allow for more flexibility. This should ensure that euro adoption emerges as the preferred policy because of the gradual fulfilment of criteria for optimal currency areas (OCA). Permanent currency union needs to be justified in terms of trade, production, and financial integration. Flexible labour and product markets are also inevitable. These characteristics will make flexible exchange rates an unnecessary cost rather than an instrument to achieve policy or structural targets.

The Maastricht criteria have some indirect relation to OCA criteria, because, for example, the countries more troubled both inside and outside the EMU are those that had higher inflation before the crisis. But they do not address fundamental issues related to capital flows, and are less relevant in a world with free and substantial capital flows. They are also internally inconsistent, a problem that is magnified by the effect that the catch-up of CESEE countries has on capital flows, price-level adjustments and volatility. The adopted interpretations of the 'three best-performing member states in terms of price stability' are misguided and the 2010 reinterpretation also contradicts the ECB's definition of price stability. Almost a century of US regional inflation data demonstrate that the adopted interpretations would rule out several US states from being part of the US monetary area, which is a warning signal. A good solution would be to relate all numerical criteria to the average of the euro area and simultaneously to extend the compliance period from the currently considered one year to the average of two or three years, which would also entail a better consideration of OCA criteria. Also, more emphasis should be put on the assessment of current-account sustainability, which is anyway required by the Treaty to be part of the convergence assessment.

Revision of the Maastricht criteria has to be complemented with better EU surveillance and crisis-management tools, as well as stricter rules governing euro-area members. These measures should also ensure equal treatment of euro-area insiders and outsiders.

# 4. Financial stability

## 4.1 Introduction

As discussed in the previous chapters, the crisis hit the countries of central and eastern Europe very hard, but to varying degrees. Financial integration was a major channel for the transmission of shocks, but the relative importance of the trade and financial channels remains a matter for discussion (EBRD, 2009), and the impact of shocks certainly varies from country to country. In some countries the credit crunch was very severe, liquidity shortages were acute at the height of the crisis and the spectre of solvency problems emerged, especially where external imbalances had grown quite rapidly in the past decade. Under these circumstances, financial stability has become a fundamental concern of policymakers throughout the region.

Yet the worst problems of past crises, such as a meltdown of financial systems and uncontrolled currency depreciations, have largely been avoided. This is a phenomenon that intrigues those observers who anticipated the worst outcomes.

This chapter focuses on the features of the deep financial integration that distinguishes CESEE countries from other emerging-country regions, and analyses the state of CESEE banking systems. The implications of cross-border operations and the intricate relationship between host- and home-country regulators and supervisors are examined. The chapter then considers four core policy issues regarding the financial systems in CESEE countries:

1. The prospects for lending against the backdrop of the deleveraging that banks are undergoing;
2. Crisis resolution in the context of cross-border bank ownership;
3. Tools to manage liquidity and potential solvency risks;
4. Policy tools for enhancing financial stability and avoiding boom-bust cycles caused by lending.

## 4.2 The impact of the crisis

Following the collapse of Lehman Brothers in September 2008, financial stability in the CESEE countries suddenly became an issue. As it became evident that the region had been hit hard by the global crisis, even harder than other regions of the world, many market analysts envisaged massive capital outflows and a breakdown of the financial systems of several CESEE countries. In contrast, much less concern was raised about financial stability in Asia and Latin America, two regions that were characterised by several previous financial crises.

Yet financial meltdown was avoided. What made the CESEE region special? How was a complete regional collapse avoided? And in what shape has the crisis left the financial systems of these countries?

### 4.2.1 Financial systems

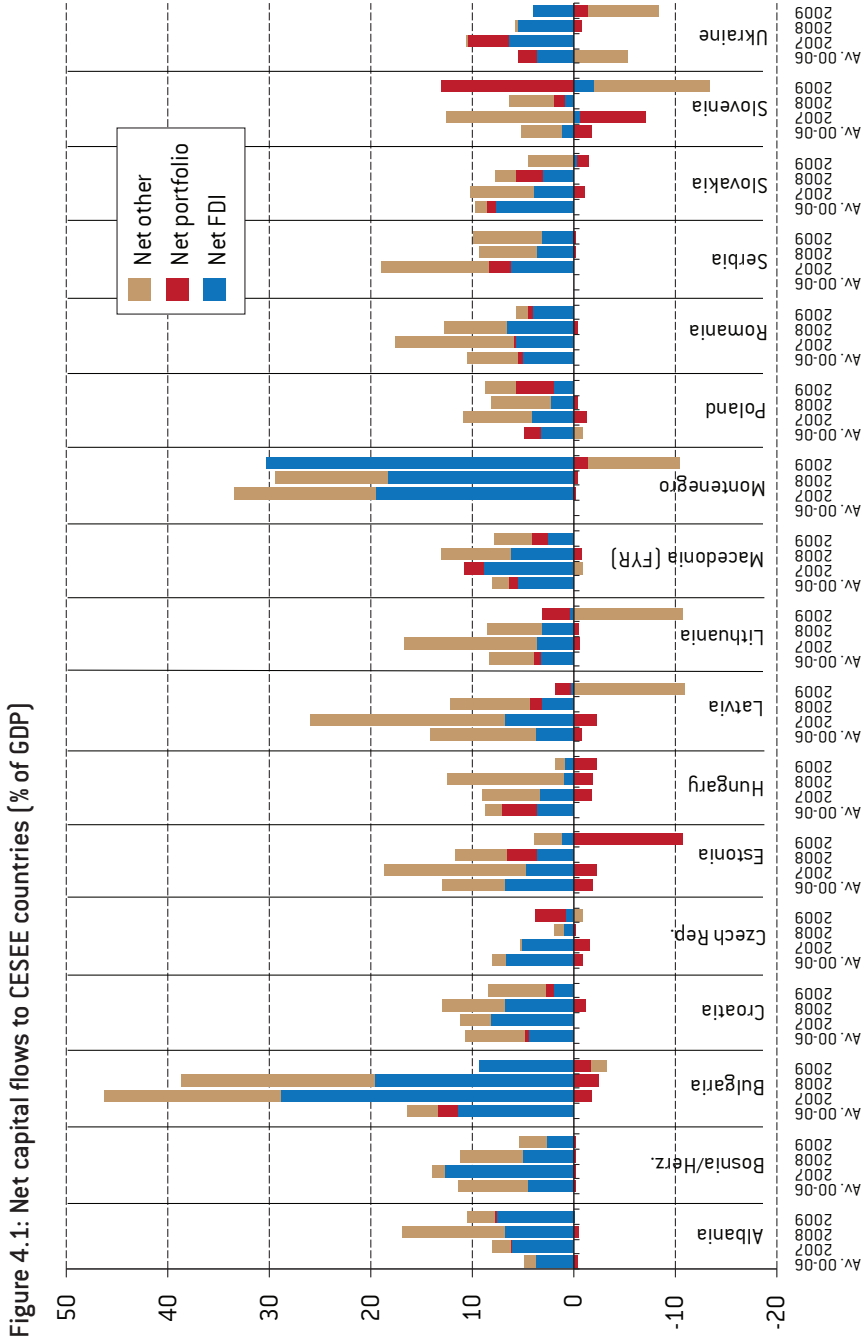
As documented in Chapter 1, the CESEE region experienced in 2008-09 a much sharper reversal of capital flows than Latin America or Asia (see Figure 1.2): capital inflows decreased by about 10 percent of GDP on average between 2007 and 2009. Figure 4.1 shows that the slowdown of capital inflows from the 2007 peak values was remarkable in most countries, and there were even capital outflows from Estonia, Latvia, Lithuania and Ukraine in 2009.

Why were CESEE countries affected more severely? The fact that most of these countries are small and open, and hence typically have fewer domestic resources with which to head off crises and could be more sensitive to changes in investors' sentiment, cannot be the main reason, as there are many small countries all around the world where the crisis had less of an impact.

The more plausible reason for the special worries about CESEE countries lies in the deep financial integration of these countries within and with the EU, and in their related reliance on net capital inflows. Financial integration and, in the case of EU members, the logic of the single market, predisposed CESEE countries to growing external imbalances. The reliance on net external funding created a systemic risk in non-euro area member countries because of potentially devastating chains of corporate defaults and the related currency risk for the economy as a whole.

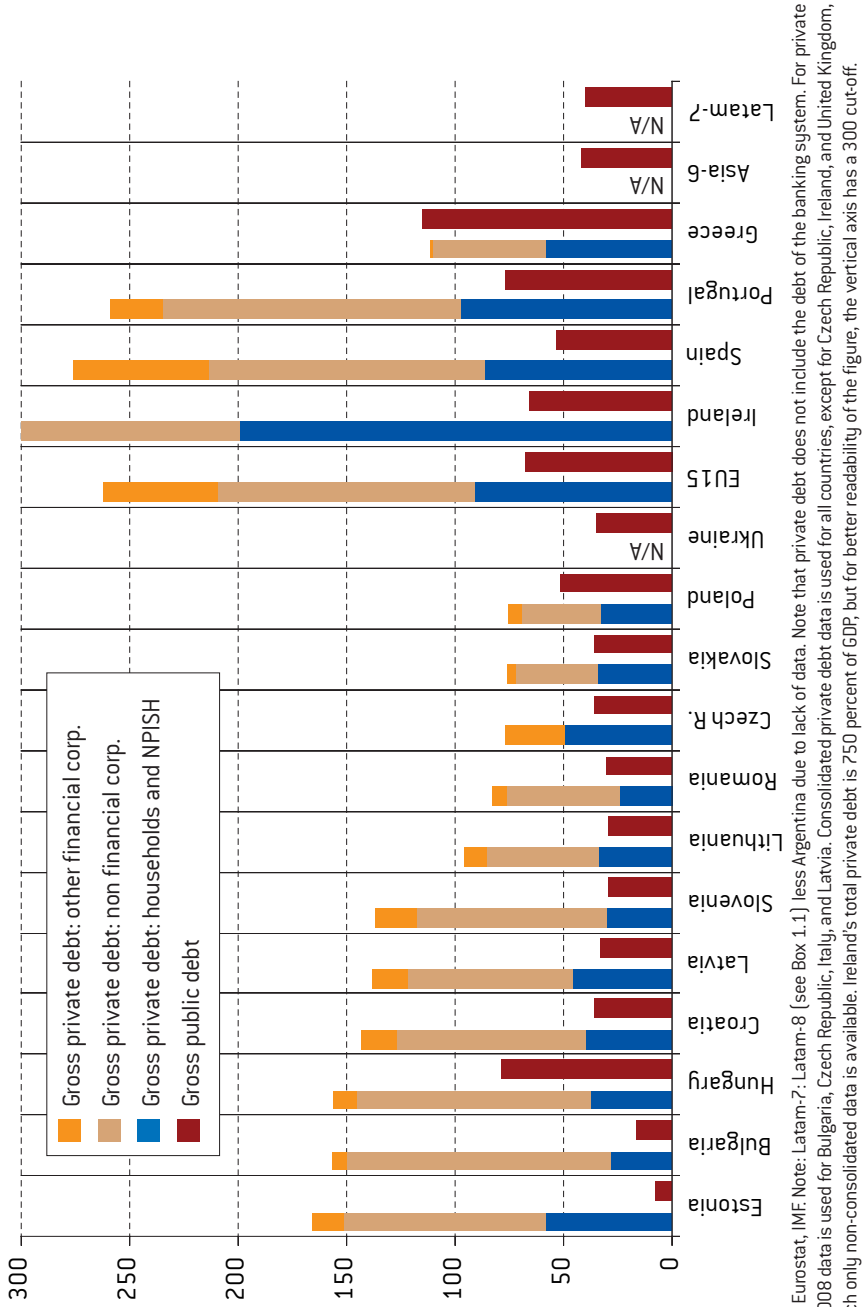
Figure 4.2 presents data on the 2008 public and private debt in the CESEE countries and several EU and non-EU comparators. It is apparent that with the possible excep-





Source: IMF

Figure 4.2: Gross private and public debt (% of GDP), 2009



Source: Eurostat, IMF. Note: Latam-7: Latam-8 (see Box 1.1) less Argentina due to lack of data. Note that private debt does not include the debt of the banking system. For private debt, 2008 data is used for Bulgaria, Czech Republic, Italy, and Latvia. Consolidated private debt data is used for all countries, except for Czech Republic, Ireland, and United Kingdom, for which only non-consolidated data is available. Ireland's total private debt is 7.50 percent of GDP, but for better readability of the figure, the vertical axis has a 300 cut-off.

tion of Hungary, public debt in these countries was not especially high by international standards. Total private debt was also comparatively low in Poland, the Czech Republic and Slovakia, but high – taking into account relative development levels – in the other countries, especially in Latvia, Hungary, Bulgaria and Estonia. This relatively high level of debt proved to be a weakness in the crisis, especially when loans had been denominated in foreign currencies.

Turning to *external debt*, Figure 4.3 presents indicators of gross and net external liabilities, again for 2008. High external debt carries a roll-over risk, even though this is arguably smaller for within-company and within-banking group loans. Also, external debt is typically denominated in foreign currencies, which carries a currency risk. In addition to gross external debt, we also report net external loan and debt liabilities, which allows a better assessment of external vulnerability<sup>1</sup>. Differences within the region are evident: central European countries had reasonably low liabilities, again with the exception of Hungary, while the Baltics and Croatia were heavily indebted externally, especially when compared to Asia-6 and Latam-8. So by common standards they could be considered vulnerable *ex ante*.

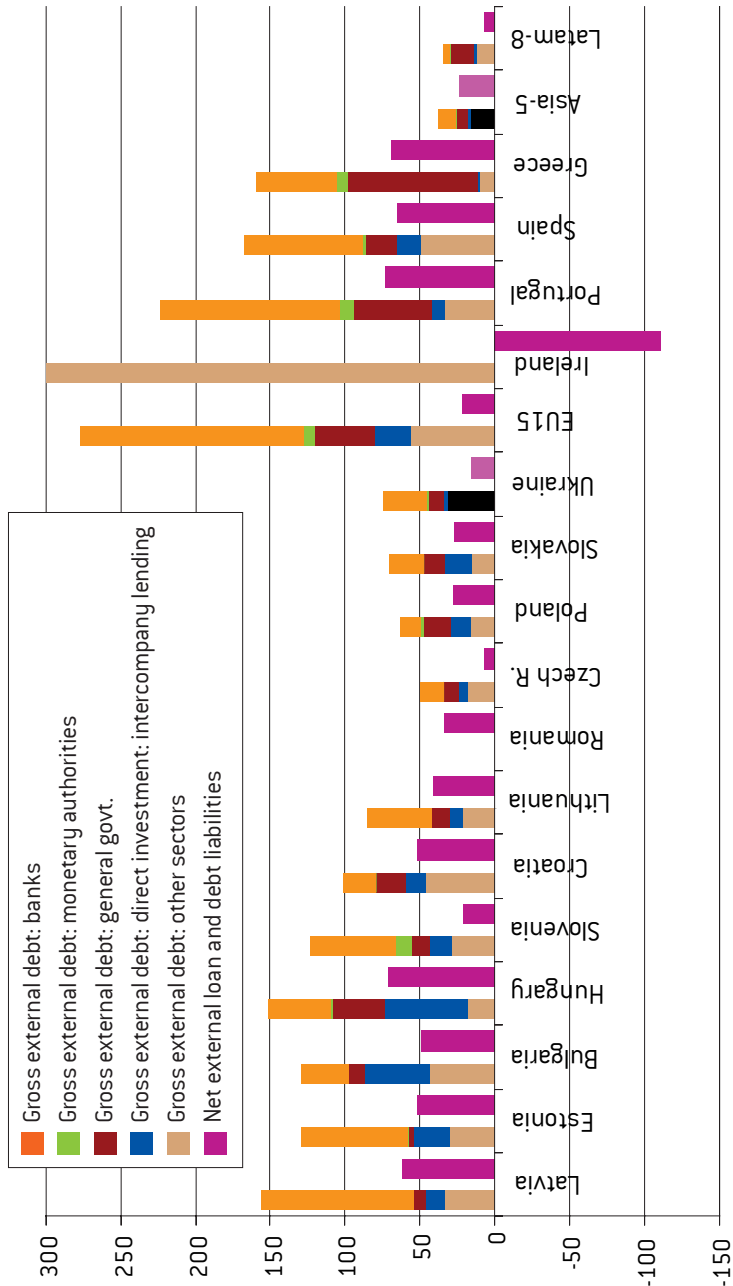
These observations are consistent with those made in Chapters 1 and 2 of this report: only three central European countries – the Czech Republic, Poland, and Slovakia – avoided falling victim to rapidly rising domestic debt and only four (the same three plus Slovenia) avoided the external-debt trap. All other countries experienced foreign-financed credit booms and the resulting accumulation of private (or, in the case of Hungary, private and public) debt. In the highly indebted countries, in a financially integrated environment, neither monetary and fiscal policies nor financial regulation were able to prevent the build-up of imbalances.

A particular feature of CESEE financial integration into the EU has been the dominant ownership of foreign (mostly EU15) banking groups (Figure 4.4). During the crisis, parent banks in the EU15 had to face serious liquidity and capital pressures and, at the time of acute market turbulences after the collapse of Lehman Brothers, it was

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1. Gross external debt is frequently used as a measure of vulnerability. However, in the case of some countries (eg Bulgaria, Hungary) a large part of it is related to FDI (inter-company lending), which is certainly less of a concern for financial stability. Also, whenever the external debt of domestic banks was taken from their parent banks abroad, the roll-over risk is less than in other lending relations. A better measure of external indebtedness is net external loan and debt liabilities (ie the net 'other investment' and net portfolio debt investment from the international investment position statistics; FDI and portfolio equity investment constitute a different kind of risk, and financial derivatives is minor in the case of CESEE countries). This indicator is plotted as the second column of Figure 4.3 and indicates that indebtedness of CESEE countries is still generally higher than in the EU15, Asia-6 and Latam-8, but the difference is smaller than in the case of gross external debt.

Figure 4.3: External debt (% of GDP), 2008

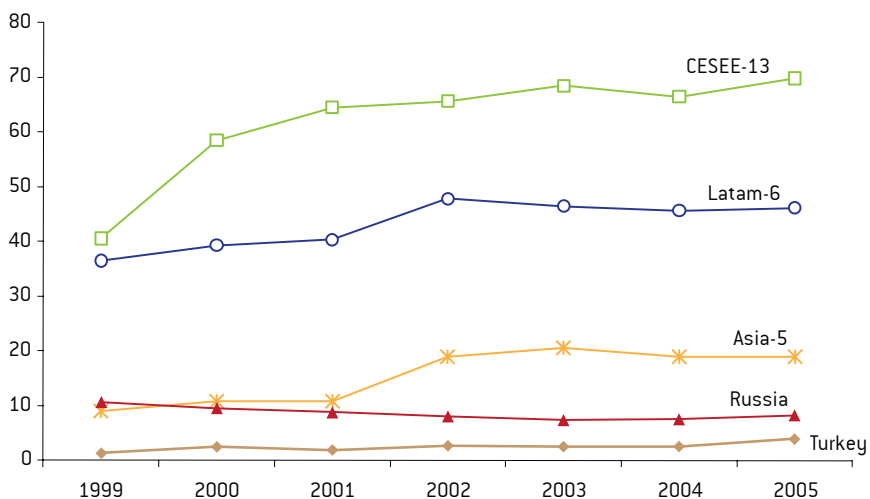


Source: Eurostat, IMF. Note: Ireland's total gross external debt is 915% of GDP, but for better readability of the figure, the vertical axis has a 300 cut-off. Apart from Croatia, data for Western Balkan countries are generally not available. Asia-5: Asia-6 (see Box 1.1.) less Taiwan Province of China due to lack of data.

not at all clear how these parent banks would manage their subsidiaries and branches in CESEE countries. In the heat of the crisis, subsidiaries had difficulties accessing liquidity and the first bank rescue attempts by EU-15 governments were targeted at the home-country operations of the banking groups, thereby weakening the subsidiaries further. This contributed to uncertainty over the prospects of foreign subsidiaries. Later, however, the Ecofin Council issued a declaration that packages must also support subsidiaries.

Other factors that disadvantaged non-euro area CESEE countries were restricted access to euro liquidity and the ECB's collateral policy. Before the crisis, banks in the region (including subsidiaries and branches of western European banks) relied heavily on the euro-area money markets. But the near-paralysis of the euro-area inter-bank money market after the collapse of Lehman Brothers meant that (especially non-foreign bank owned) commercial banks in central and eastern Europe were largely cut off from euro liquidity. The more the ECB (rightly) moved into new territory to remedy the shortage of liquidity in the euro area, the more it was inadvertently putting the region's banks – at least those without access to a parent bank's liquidity – at a disadvantage, while making their government bonds unattractive. The latter impact came from the ECB's collateral policy: it has expanded the set of securities

Figure 4.4: Foreign bank ownership, 1998-2005 (assets owned by foreign banks as % of banking system assets)



Source: Chart 6b from Berglöf *et al* (2009).

eligible for refinancing operations to lower-quality as well as US dollar, British pound and Japanese yen securities (issued in the euro area), but has not expanded the set of eligible securities to securities denominated in non-euro EU currencies. As the ECB practically replaced euro-area money markets, demand increased for eligible securities and decreased for those that were not eligible. The ECB did not offer euro-swap facilities to any CESEE central bank, though it had offered them to Denmark and Sweden and had similar swap agreements with many other central banks<sup>2</sup>.

The possibility of contagion, ie intra-regional spillovers, was also among the major fears for CESEE countries<sup>3</sup>. Indeed, past regional financial crises had shown that a crisis can spread through contagion even to less vulnerable countries.

Finally, considering the EU as a whole, massive cross-border operations of banks have highlighted that even though the EU is a single market, national choices remain important. The EU does not have tools to handle cross-border banking crisis management, and there are no schemes for burden sharing in case of a default.

### *4.2.2 How a regional collapse was avoided*

There are four main explanations for CESEE countries' avoidance of financial meltdown.

First, prior to the crisis, the region's financial sectors were relatively sound, in comparison to, for example, the Asian countries in the 1990s (see EBRD, 2009). In the CESEE countries, throughout the crisis, the accusations of cronyism that were commonplace at the time of the Asian crisis were remarkably absent.

Second, there were forceful multilateral responses. Medium-term financial assistance conditional on fiscal consolidation and on the implementation of comprehensive economic reform programmes played crucial roles. Programmes were led by the IMF, but for Hungary, Latvia and Romania the EU also participated both financially and substantively<sup>4</sup>. Two western Balkan countries, Serbia and Bosnia and

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2. As hinted by Vallee (2010), and confirmed by the Annual Report of the Hungarian central bank published in May 2010, the earlier euro-repo was partially converted into a swap in January 2010, ie more than a year after the collapse of Lehman Brothers, but this agreement has been kept secret. A similar secret agreement may have been concluded with Poland as well around the same time.

3. Árvai *et al* (2009) study financial interlinkages and identify the likely pressure points and potential spillover effects and propagation channels of a regional shock originating from a given country.

4. In the programmes there has also been World Bank, EBRD and EIB assistance, and, for Latvia, bilateral support from seven European countries.

Herzegovina, also relied on IMF programmes<sup>5</sup>. Other multilateral support included the frontloading of disbursement from EU structural and cohesion funds as well as the expansion of European Investment Bank and European Bank for Reconstruction and Development activities (for more details see Darvas, 2009b).

Third, in view of the dominant presence of foreign banks in the region, important roles have been played by: a European Bank for Reconstruction and Development co-ordination initiative aimed at ensuring a rollover of the western European banks' claims on the region ('The Vienna Initiative')<sup>6</sup>; ECB support for parent banks; and the EU's political commitment that bank-rescue packages would have to support subsidiaries.

Fourth, but not least, the swift rescue of parent banks by EU15 governments greatly contributed to stability. Without it, crisis management measures specifically targeted at the region would have not been effective. In the case of a failure of a parent bank with an important market share in a CESEE country, that country – even if it was among the less vulnerable – would have suffered much more<sup>7</sup>.

For these reasons, no significant CESEE government intervention was needed beyond the upgrading of deposit insurance schemes. In most CESEE countries neither capital injections nor liquidity support have been needed; the key exceptions are some of the countries under an IMF-led programme (Bosnia and Herzegovina, Hungary, Latvia, and Ukraine; see Darvas, 2010a).

#### 4.2.3 *The state of the banking system*

In order to assess vulnerability to further shocks, stress tests for banks have been conducted across the region. The examination of the effects of mutually reinforcing negative dynamics points to resilience under severe, but plausible, macroeconomic scenarios (see the summary in ECB, 2009). Yet the overall assessment of the ECB at the end of 2009 was still cautious: 'Looking ahead, the macroeconomic outlook in the non-euro area EU countries has improved somewhat..., although there is still an

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5. Among the neighbourhood countries Armenia, Belarus, Georgia and Ukraine requested IMF support.

6. The 'Vienna Initiative' is a multilateral effort to secure financial-sector stability in those CESEE countries with substantial foreign bank ownership. It stipulates coordination between all relevant stakeholders, including international banking groups, home- and host-country authorities, international financial institutions and the EU, with the aim of developing a common understanding on key issues. It aims to secure the commitments by both international banking groups and home- and host-country authorities, and to coordinate fair burden-sharing (see Box 1.4 in EBRD, 2009).

7. In this regard, the agony created by the Greek sovereign risk in early 2010 and its potential impact on Greek banks carries a significant risk to those western Balkan countries in which Greek banks have a substantial interest.

unusually high degree of uncertainty. Rising unemployment, lower incomes and corporate defaults are likely to lead to a further increase in loan delinquencies and a further deterioration of bank loan portfolios' (ECB, 2009, p. 29).

The share of non-performing loans (Figure 4.5) has indeed risen in many countries, though end-2009 levels, even in the worst-hit countries, were still well below the levels reached in several Asian countries in the late 1990s (30-40 percent in some of these countries). Also, in many CESEE countries current levels are still below historical records. Yet the share of non-performing loans is a lagging indicator. Also, as it does not include all rescheduled debt, it may not give a full picture of bad loans.

Bank returns on assets and equity have declined, but remained positive in 2009 in most CESEE countries, with the notable exceptions of Ukraine, the Baltic countries, and Montenegro (Table 4.1)<sup>8</sup>. On average, return on assets and equity continued to remain above the average returns in EU15 countries, but below the average value of Latin American countries. Capital adequacy ratios have even increased in most countries due to, in many cases, parent-bank support and, in a few cases, CESEE governments have also injected capital, as mentioned earlier.

### 4.3 Cross-border bank ownership and financial stability

The substantial exposure to the CESEE region of banking groups headquartered in older members of the EU (Table 4.2) has, inevitably, become a source of both home- and host-country concern. One reason for this is potential losses in sharp economic downturns. This especially applies to countries such as Austria, Belgium and Sweden whose banking sectors' exposure to the CESEE region is significant from a macro economic point of view. Another concern, from the host-country perspective, is the fear of a possible disorderly disinvestment of these banking groups from certain CESEE countries. The increased exposure of a bank to a particular geographic area also raises micro-prudential regulation and supervision issues.

This crisis has illustrated that the distribution of responsibilities between home and host country and the non-existence of detailed burden-sharing arrangements in the event of a crisis is a major handicap for the single market<sup>9</sup>. Under current arrange-

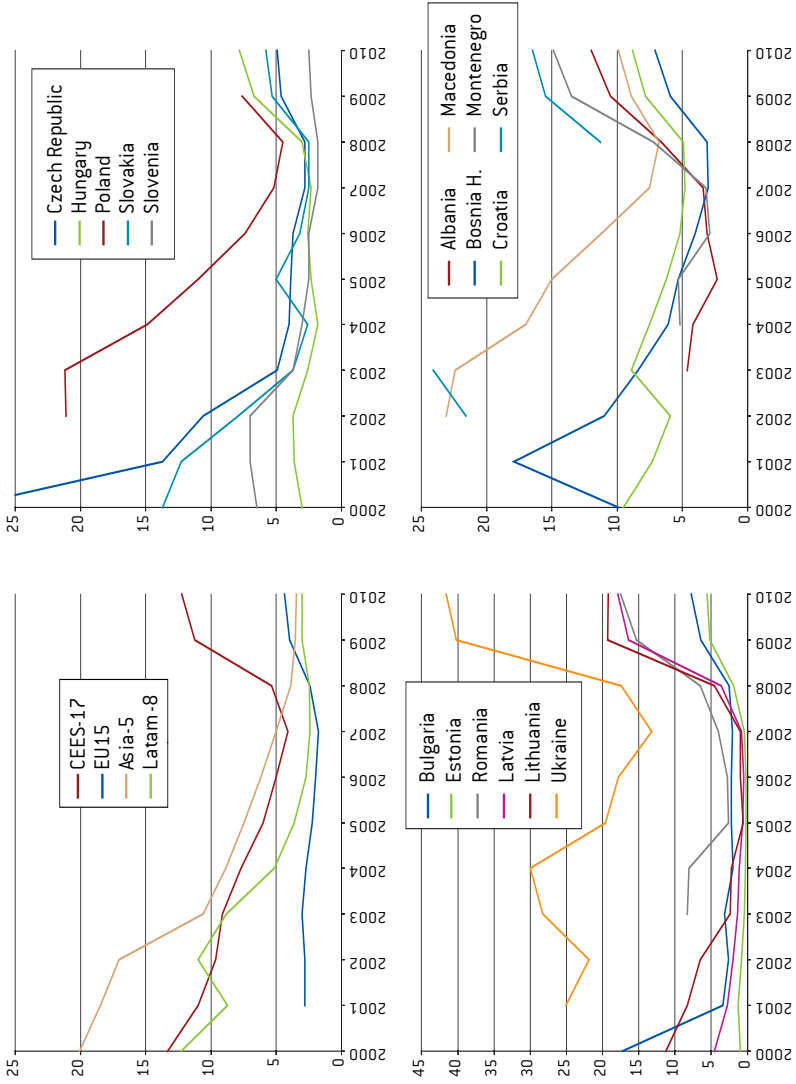
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8. However, looking at the past decade, the cumulative profits are still highly positive in these countries as well.

9. As the de Larosiere report (2009) says, 'The absence of a sound framework for crisis management and resolution [with sufficiently clear principles on burden sharing, customers' protection, assets transferability and winding up] complicates the introduction of an effective and efficient supervisory system to avoid financial crises in the first place' (p76).



Figure 4.5: Share of non-performing loans, 2000-10



Source: IMF GFSR October 2010, EBRD, and Bergiöf et al (2009). Note: Data refer to end of the year except for 2010, for which data typically available between March and June 2010.

Table 4.1 Bank return and capital adequacy (per cent), 2003-2010

	Bank return on assets				Bank return on equity				Capital adequacy				(Month of 2010)
	2003-07	2008	2009	2010	2003-07	2008	2009	2010	2003-07	2008	2009	2010	
Czech Rep.	1.3	1.1	1.5	1.5	24.7	20.7	26.4	25.2	12.4	11.6	14.0	14.2	March
Hungary	1.4	0.8	0.7	1.8	22.3	11.6	9.8	21.9	11.4	11.2	12.9	12.9	March
Poland	1.4	1.5	0.8	...	18.1	20.5	10.7	...	13.8	11.2	13.3	...	...
Slovakia	1.2	1.2	0.6	1.1	14.6	16.3	7.6	11.9	16.3	11.1	12.6	12.7	March
Slovenia	1.2	0.7	0.3	0.5	13.8	8.1	3.9	5.8	11.2	11.7	11.6	11.4	March
Bulgaria	2.2	2.1	1.1	1.0	22.7	23.1	10.2	8.7	16.4	14.9	17.0	18.2	March
Estonia	2.0	0.3	-5.8	-0.3	20.0	13.2	-56.8	-3.4	11.3	13.3	15.7	22.0	March
Latvia	1.9	0.3	-3.5	-2.5	23.0	4.6	-41.6	-29.8	10.0	11.8	14.6	14.2	March
Lithuania	1.3	1.0	-4.2	-1.1	16.9	13.5	-48.4	-16.6	11.5	12.9	14.2	15.1	March
Romania	2.0	1.6	0.2	0.6	15.0	17.0	2.7	5.9	18.9	13.8	14.7	15.0	March
Albania	1.4	0.9	0.4	0.8	20.7	11.4	4.6	8.0	20.8	17.2	16.2	16.1	May
Bosnia & H.	0.7	0.4	0.1	0.0	6.6	4.3	1.1	-0.4	18.3	16.3	16.1	15.7	March
Croatia	1.6	1.6	1.1	1.1	13.8	9.9	6.4	6.1	15.8	15.4	16.6	21.3	March
Macedonia	1.2	1.4	0.6	0.4	8.0	12.5	5.6	3.2	21.1	16.2	16.4	16.5	June
Montenegro	0.6	-0.6	-0.7	-3.5	4.0	-6.9	-7.8	-34.4	24.4	15.0	15.7	14.3	March
Serbia	0.6	2.1	1.3	1.3	3.6	9.3	5.7	6.1	27.5	21.9	21.3	21.5	March
Ukraine	1.3	1.0	-4.4	-2.1	10.5	8.5	-32.5	-14.8	15.0	14.0	18.1	20.8	March
EU15	0.7	0.1	0.2	0.3	14.4	-0.5	4.6	5.5	12.5	12.1	13.8	13.6	around April
Asia-5	1.4	1.2	1.3	1.1	14.2	11.7	12.1	13.0	15.4	14.3	15.8	15.2	mostly March
Latam-8	1.6	1.7	1.8	1.8	16.0	17.7	17.8	17.2	15.0	14.7	15.5	15.6	mostly April

Source: IMF GFSR April 2010. Note: The last column of the table shows the month for which the 2009 data refer to. Asia-5 = Asia-6 (see Box 1.1.) without Taiwan

Table 4.2 Exposure to CESEE (per cent of home country GDP), September 2009

	Austria	Belgium	Sweden	Greece	Italy	Netherlands	Portugal	Switzerland	Germany	France	Denmark
Czech Republic	16.9	10.9	0.0	0.0	0.7	0.6	0.0	0.1	0.4	1.3	0.0
Hungary	10.3	3.0	0.1	0.0	1.3	0.7	0.2	0.2	1.0	0.5	0.1
Poland	3.8	4.9	2.1	0.0	2.0	4.6	6.6	1.8	1.7	0.9	0.5
Slovak Republic	8.2	2.0	0.0	0.0	0.9	0.2	0.1	0.0	0.1	0.2	0.0
Slovenia	2.8	0.5	0.0	0.0	0.4	0.1	0.1	0.0	0.4	0.1	0.0
<b>CE-5 total</b>	<b>42.0</b>	<b>22.3</b>	<b>2.3</b>	<b>0.1</b>	<b>5.3</b>	<b>6.2</b>	<b>6.9</b>	<b>2.1</b>	<b>3.6</b>	<b>2.0</b>	<b>0.7</b>
Bulgaria	1.6	0.5	0.0	3.1	0.4	0.1		1.4	0.1	0.2	0.0
Estonia	0.1	0.0	6.6	0.0	0.0	0.0		0.0	0.0	0.0	0.1
Latvia	0.2	0.0	5.2	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
Lithuania	0.1	0.0	5.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.2
Romania	11.1	0.2	0.0	5.7	0.6	1.3	0.3	1.3	0.1	0.6	0.0
<b>BB-5 total</b>	<b>12.9</b>	<b>0.7</b>	<b>17.8</b>	<b>8.8</b>	<b>1.1</b>	<b>1.3</b>	<b>0.3</b>	<b>2.7</b>	<b>0.5</b>	<b>0.8</b>	<b>0.5</b>
Albania		0.0	0.0	0.6	0.1	0.0		0.0	0.0	0.0	0.0
Bosnia & Herzegovina	1.1	0.0	0.0	0.0	0.2	0.0		0.0	0.1	0.0	0.0
Croatia	6.8	0.1	0.0	0.0	1.5	0.0	0.0	0.0	0.5	0.3	0.0
Macedonia	0.1	0.0	0.0	0.5	0.0	0.0		0.0	0.0	0.0	0.0
Montenegro	0.0	0.0	0.0	0.0	0.1	0.0		0.0	0.0	0.0	0.0
Serbia	1.6	0.0	0.0	1.4	0.3	0.0	0.0	0.4	0.1	0.1	0.0
<b>Western Balkan total</b>	<b>9.6</b>	<b>0.1</b>	<b>0.0</b>	<b>2.6</b>	<b>2.1</b>	<b>0.0</b>	<b>0.0</b>	<b>0.5</b>	<b>0.8</b>	<b>0.4</b>	<b>0.0</b>
Ukraine	2.6	0.0	0.8	0.2	0.1	0.3	0.0	1.1	0.1	0.3	0.0
<b>Total for all 17 countries</b>	<b>67.1</b>	<b>23.1</b>	<b>20.9</b>	<b>11.6</b>	<b>8.6</b>	<b>7.9</b>	<b>7.2</b>	<b>6.4</b>	<b>5.0</b>	<b>4.4</b>	<b>1.2</b>
<b>Total for all 17 countries in EUR billions</b>	<b>172</b>	<b>73</b>	<b>56</b>	<b>26</b>	<b>123</b>	<b>42</b>	<b>10</b>	<b>21</b>	<b>110</b>	<b>79</b>	<b>2</b>

Source: BIS (bank exposure) and IMF (GDP).

Note: All entries are expressed as per cent of home-country GDP except data in the last row, which are expressed in EUR billions. Home countries are ordered according to their CESEE exposure as a per cent of GDP. Exposure to CESEE is between 7 and 4 billion euros in Japan, Spain, US and UK, which is below one per cent of the GDP of these countries.

ments, responsibility for the stability of financial *institutions* belongs to the supervisor of the country where they are headquartered, whereas responsibility for the stability of the financial *system* belongs to the supervisor of the host country. More specifically, for a CESEE country whose financial system is dominated by western European banks, institutional supervision belongs to the various western European supervisors, whereas the local supervisor has responsibility for the local financial system. To correct this far-from-ideal allocation of responsibilities<sup>10</sup>, *ex ante* cooperation among supervisors takes place in committees, and memoranda of understanding have been agreed to guide action in crisis situations, but incentives to share information are weak and provisions for cooperation in crisis management are little more than declarations of good intent. As to crisis resolution, there are no *ex ante* burden-sharing arrangements. The management of the near-bankruptcies of Fortis and Dexia in 2008 illustrated how much solutions depend on the ability of governments to quickly agree on ad-hoc arrangements<sup>11</sup>.

Summing up, the financial crisis has shown that cooperation between home- and host-country authorities deteriorates in crisis situations because of:

- The complex distribution of tasks between home- and host-country authorities;
- A lack of *ex-ante* burden-sharing agreements;
- The limited powers of host-country authorities to protect markets.

This crisis has reinforced the idea that a common rulebook, more integrated supervision, and a common framework for crisis resolution are needed to match the degree of market integration in financial services.

On the other hand, the burden-sharing issue prompts national governments and supervisors to think more along national lines, in view of their accountability toward national taxpayers. A clear lesson from the crisis in this respect is that there are no European taxpayers, only national ones.

How this contradiction will be addressed and whether or not it will be resolved is crucial for the future of European integration. Central and eastern Europe in this respect is by no means peripheral, it is on the contrary where the tension between the two equally defensible principles of single-market integration and national budgetary

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10. This separation of responsibilities leads to an underestimation of systemic risks and complicates, *inter alia*, the task of working out burden-sharing arrangements and calculating their fiscal implications.

11. Pisani-Ferry and Sapir (2010) provide a detailed account of the management of the banking crisis in the EU.

responsibility is the most acute. It is therefore the place where solutions are to be worked out and implemented.

Before the crisis, the lead supervisor concept (which was promoted by leading financial groups) was resisted by small countries on both political and financial stability grounds. These countries feared that losing a final say over the deliberations of the supervisory colleges, because of their host-country status, would cripple their capacity to intervene during a crisis. Because foreign groups, operating multi-jurisdictionally, could be tempted to reallocate capital in a way that might create havoc locally, what would seem optimal for a financial group might be quite suboptimal for a host country. If problems emerge, there may be a divergence of interest with 'the home supervisor wishing to see maximum transferability of liquidity to offset the emergence of group-wide liquidity problems, while host supervisors wish to ring-fence liquidity at national level precisely because they have growing concerns about the whole group position' (The Turner Review, 2009, p. 99). And, as the Turner Review stresses, even well-capitalised local bank subsidiaries are likely to face liquidity crises if the whole group is seen to be in trouble. In view of the powerful contagion effects that are likely to operate in the event of a crisis, the trouble could extend to whole banking systems.

Initiatives since the crisis have indicated that policymakers are aware of the problem and want to find solutions. The De Larosière group report, and the decision of the Ecofin meeting of 9 June 2009 (Council of the European Union, 2009) to strengthen micro-prudential supervision, aimed to turn the Lamfalussy Level 3 Committees into 'European Authorities'<sup>12</sup> and to create the ESRB (European Systemic Risk Board) in charge of macro prudential supervision. These are important steps which have given an impetus to the creation of a European system of regulation and supervision.

In the same way, the Vienna Initiative of 2008-2009, which was made necessary by the concern that foreign (parent) banks present in the CESEE region would be

12. The Lamfalussy Level 3 Committees are: the Committee of European Securities Regulators (CESR), the Committee of European Banking Supervisors (CEBS) and the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS). Council of the European Union (2009) concluded that: 'The Council RECOMMENDS that a European System of Financial Supervisors be established as an operational European network with shared and mutually reinforcing responsibilities. At EU level, the current EU committees of supervisors (CEBS, CEIOPS and CESR) should be transformed into European Supervisory Authorities (ESAs) with a legal personality under Community law: a European Banking Authority (EBA), a European Insurance and Occupational Pensions Authority (EIOPA), and a European Securities and Markets Authority (ESMA). National supervisors should remain responsible for day-to-day supervision of individual firms. A steering committee of the ESAs should be set up to reinforce mutual understanding, cooperation and consistent supervisory approaches, in particular in relation to financial conglomerates, and to coordinate the necessary information sharing between the ESAs and the ESRB'.

inclined to transfer liquidity and capital back home at a time when credit markets were collapsing, can be hailed as a success. But a satisfactory ad-hoc solution in a crisis is no substitute for a more permanent response.

Reform of the financial regulatory and supervisory architecture is therefore unfinished. We return to the issue below.

### 4.4 Policy options

Different countries in the CESEE region face largely different issues regarding their financial systems. This partly relates to cross-country differences in indebtedness as Figures 4.2 and 4.3 have indicated.

- For most CESEE countries, where the private sector has become highly indebted and medium-term growth prospects have substantially weakened, a long process of deleveraging is likely. The crucial issue for these countries is how to stop this necessary process from holding back growth in the years to come.
- In a few central European countries with reasonably low private-sector indebtedness (the Czech Republic, Poland and Slovakia), controlling the expansion of credit may come to the fore much earlier than elsewhere.
- In all countries, liquidity and perhaps solvency risks may come to the fore again should market sentiment worsen again for any reason.
- Last but not least, crisis resolution remains an issue since in CESEE countries foreign bank ownership is significant.

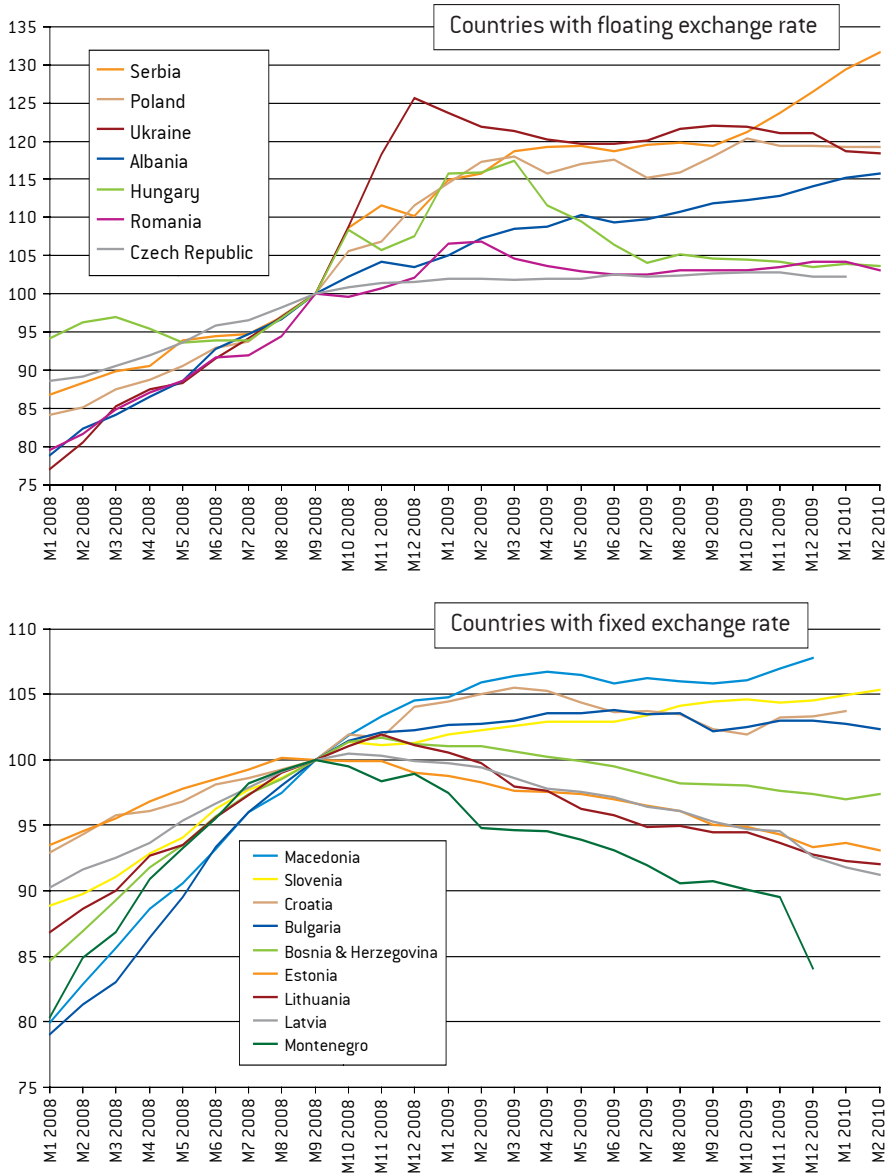
We discuss these four issues in turn.

#### 4.4.1 *Deleveraging and the issue of credit resumption*

Banks, households and non-financial corporations all around the world are responding to the crisis by deleveraging. Unfortunately recent data are not available for all aspects of the deleveraging process; only data for credit aggregates are available. What do the data show so far about credit aggregates of CESEE countries?

Credit aggregates are impacted by exchange-rate movements in countries with a floating exchange rate and a significant share of foreign-currency loans. Figure 4.6 shows the level of credit (measured in domestic currency unit) normalised as September 2008 = 100 (ie the starting point is the date of the collapse of Lehman Brothers). The rapid increase in the market value of credit outstanding to the private

Figure 4.6 Credit to the private sector (measured in domestic currency unit, September 2008 = 100)



Source: IMF International Financial Statistics. Note: the scale of the two panels is different.

sector immediately after the collapse of Lehman Brothers in some countries is largely due to valuation effects as the domestic-currency value of foreign-currency loans rose sharply as exchange rates depreciated. For Hungary, where the central bank publishes net lending data adjusted for exchange-rate changes, it is possible to disentangle the valuation effect from net credit generation. Data show net lending collapsed and quickly turned negative soon after September 2008.

Credit aggregates were not impacted by exchange-rate changes in countries with fixed exchange rates and were very mildly impacted in the Czech Republic, where the share of foreign-currency loans is minor. In the three Baltic countries, Bosnia and Herzegovina and Montenegro (all are fixed exchange-rate countries) the amount of credit outstanding began to fall immediately after the collapse of Lehman Brothers. In Bulgaria and Macedonia (two fixers), Croatia (a quasi-fixer), and Slovenia (a euro area member) credit grew at a much reduced pace, or stopped.

A key question is whether this evolution was the consequence of a credit crunch, or of reduced demand, possibly as a consequence of a deteriorating economic outlook and rising interest rates. Ghosh (2009) studied this question for three countries, Hungary, Latvia and Poland, for the 2008Q3-2009Q2 period. He finds evidence of a credit crunch in all three countries, though at different times: the crunch affected Poland in 2008Q4 only, Latvia in 2008Q4 and 2009Q1, and Hungary from 2008Q4 to 2009Q2. Ghosh also concludes that 'the initial credit crunch and credit supply problems is likely to have contributed to the decline in GDP and hence to the decline in demand in credit subsequently' (p43). This suggests that the credit crunch was an important factor behind recession during the current crisis. Those CESEE countries for which empirical analysis of this issue is not available are also likely to have faced similar developments.

For the future, the crucial issue is what will happen to the credit creation process after economies bottom out. Some weaker banks may wish to decrease their exposure to the region wherever it has reached significant levels. Deleveraging at group level may be an incentive for decreasing exposure everywhere, including in the CESEE. Some banks that face a large increase in dubious loans, such as in the Baltic countries, may also wish to roll over these existing dubious loans in their regional subsidiaries and branches instead of assuming the losses in full and cleaning up their balance-sheet. Therefore, these banks may become 'zombies', thereby depressing credit growth further. These factors will likely hold back credit supply, especially in more indebted countries.



On the demand side, households and non-financial corporations may also wish to deleverage in cases in which their indebtedness has risen to values that will not be supported by downward revised economic outlooks and increased uncertainties<sup>13</sup>.

What room for manoeuvre do CESEE policymakers have to assist in the resumption of credit? With the exceptions mentioned above, most banks seem to be well capitalised and thus in no need of further support. Hence CESEE governments can do little through financial regulation. Instead, governments can assist and support the credit creation process in the following ways.

1. *Credible macroeconomic policies* (including public-finance consolidation and the reduction in the level and volatility of inflation, where these are needed) so that markets do not ask for excessive risk premia in lending to local businesses.
2. *Macroeconomic adjustment in countries with overvalued exchange rates and high private debt*. In a few CESEE countries, most notably the three Baltic countries, the real exchange rate is highly overvalued and the adopted 'internal devaluation' strategy (cutting nominal wages and prices) is not advancing at a sufficient pace. At the same time, the private sector is highly indebted in euros. An adjustment in macro-economic policy, possibly including devaluation, would lead to immediate heavy losses in the banking sector<sup>14</sup> and government intervention would be needed. The government would need to design debt resolution schemes, and the government may have to assume part of the bad loans (ie provide subsidies to banks and/or the non-financial private sector). However, any subsidy will likely raise serious moral hazard and distributional issues and most CESEE governments have very limited resources for such an undertaking. In view of these limited resources, devaluation would require home-country governments to support their banks.
3. *Fostering credit through public banks or through domestic development banks*. Governments or central banks may promote lending in this way. However, any non-market solution may have serious distorting effects and should be considered only when markets are barely functioning. The use of this channel would be limited by the scarce resources governments can muster to this end.
4. *Creating a public institution ('bad bank')* to deal with dubious loans and encour-

13. Piatkowski (2009) presents data on non-financial corporate leverage in the Czech Republic, Hungary and Poland and shows that it is lower in these countries than in other emerging economies before, during, and after the latter went through a balance-of-payments crisis. This ratio is also lower than in Greece, Ireland, Portugal and Spain.

14. Whether or not to devalue is a complex issue and its various aspects are discussed primarily in Chapter 3 of this report. We just mention here that a key risk of devaluation to financial stability in a highly euro-ised country is that foreign banks may decide to withdraw from these countries in the face of a large number of simultaneous defaults, which would further undermine financial stability and economic recovery.

aging banks to sell their dubious loans to this institution. Some countries have used such schemes successfully, eg Sweden in the early 1990s and Ireland, which has set up such an institution in response to the current crisis. But cleaning up banks would not automatically raise their propensity to lend, and it is not clear that such institutions could be set up at host-country level.

The EU can support these actions by taking a lead in giving technical advice to CESEE governments, and through the use of EU Structural and Cohesion funds to bolster economic growth and crowd in commercial lending.

### *4.4.2 Crisis resolution*

Because CESEE financial markets are dominated by foreign groups, the home-country authorities must work very closely with host-country authorities should a case of bank distress arise.

It would be important for governors of the central banks (representing the main regulatory/supervisory bodies) in the region to keep in close contact and coordinate their measures. To this end, it would be useful to set up a *Financial Stability Initiative* (FSI), which should focus on the systemic problems of the non-euro area countries and report back to the ESRB and the EFC of the Council. Such a body would have to rely on close cooperation among supervisors and central banks in the region and would broaden the concerns that have motivated the establishment of the Vienna Initiative. In fact, the de Larosiere report (2009) recommends that unforeseen events should prompt the 'Authorities' to create and lead groups of national supervisors, which should tackle any issues arising. When arguing in favour of creating such groups, the de Larosiere report refers, in particular, to 'bankruptcy of a third country systemic group' (p54).

The proposals on levying a tax on banks and creating an Insurance Fund<sup>15</sup> would help deal with the case of distressed banks.

However, to the extent that the banks are 'too big to save'<sup>16</sup>, an EU wide debt-resolution authority would prove useful and could be set up in this time of financial crisis. Liquidity challenges can be and have been addressed by the ECB, but there is a need

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15. The setting up of an Insurance Fund is a German government idea.

16. As against the better known 'too big to fail', 'too big to save' is a term used by Gros and Micossi (2008) to describe oversized financial institutions which endanger the viability of public finances.

for an institution to deal with solvency problems should they arise. It may prove difficult to do this because of the close connection between debt resolution and fiscal costs and fiscal sharing constraints in the EU. An instrument to deal with debt resolution problems in the banking sector is badly needed. The aim would be to clean up the banks' balance-sheets in order to support the process of deleveraging and also improve conditions for the resumption of credits.

In addition to the debt-resolution facility, the issue of systemic risks has to be addressed (see the detailed proposal in Weder di Mauro, 2010). To the extent that this is an externality which is larger the more leveraged the banks are, there is a case for regulation that would condition the leverage requirements on the size of a bank. In addition, added insurance on lending activities of big and multinational banks could be considered. These instruments are different from the proposed tax on banking activities, which addresses the risk-taking behaviour of the banks, but not the issue of systemic risk and of the pro-cyclical behaviour of the leverage ratio.

#### *4.4.3 Access to liquidity and solvency problems*

There are several ways of improving access to liquidity and mitigating solvency threats at a supra-national level. Remedies such as those listed below were implemented during the crisis.

- Rules on convergence of deposit guarantees, which should prevent 'beggar-thy-neighbour' policies;
- Medium-term financial facilities (IMF resources were tripled from US\$ 250 billion to US\$ 750 billion, and the EU's medium-term financial facility was also upgraded from €12 billion to €50 billion);
- Other IFI credit lines and investments.

Two avenues to improve the EU's support to CESEE deserve discussion:

- Swap-lines between the ECB and central banks of non-euro area countries;
- A broadening of the ECB range of accepted collateral to national currency-denominated bonds issued by non-euro area CESEE countries.

These two measures, which would have helped to ward off euro liquidity shortages, were considered but not implemented<sup>17</sup> at the height of the crisis. They should, if conditions require them again, apply at least to EU members, but the ECB may also consider EU candidate and potential candidate countries – with appropriate provisions to

risk considerations, of course<sup>18</sup>.

Finally, although increased capital requirements are necessary, an immediate implementation of Basel III would be counterproductive at a time when economies are still fighting to get out of recession and credit markets are functioning very precariously. The phasing-in of Basel III should rather be gradual.

#### *4.4.4 Preventing future credit booms*

The crisis has highlighted the necessity of limiting unhealthy credit booms. There are various tools to mitigate such booms, and discussion about their efficiency and effectiveness is part of the international agenda. The most frequently considered instruments are:

- Counter-cyclical capital and reserve requirements;
- Dynamic provisioning against expected losses;
- Limits on leverage and maturity mismatches;
- Discretionary macro-prudential measures under the guidance of newly created macro-prudential supervision bodies such as the European ESRB.

The difficulty for CESEE countries is that this toolkit mostly applies to countries where credit is in the hands of national banks or autonomous local subsidiaries of foreign banks. It is not likely to be effective in countries where credit is mostly in the hands of foreign bank branches, or lending can be outsourced to foreign entities of the banking group (ie the parent bank or a subsidiary in another country). In such cases it is illusory to try to limit credit creation by regulating parent banks, because their behaviour may endanger financial stability in the host country without creating problems for their own solvency. Coordination among supervisors can be a response, but calling for coordination is no solution when participating institutions have different, possibly conflicting, mandates and incentives.

Structural measures to improve the monitoring of financial stability in host countries include:

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17. Foreign exchange swaps should not be confused with the repo facility offered to Hungary and Poland. Under these agreements the two CEE central banks could receive temporary euro liquidity in exchange for securities eligible for ECB transactions, such as euro-denominated government bonds issued in the euro area.

18. The evolving ECB collateral and open-market operations policies in the wake of the Greek crisis might provide an opportunity to extend ECB's responsibility to the CESEE region too.

- Turning foreign bank branches into fully-fledged subsidiaries;
- 'Foreign-owned subsidiaries should be subject to the same capital requirement calculations, and hold that in domestic assets, as its own domestic banks'<sup>19</sup>;
- Imposing restrictions on the setting-up of new bank subsidiaries in certain areas<sup>20</sup>.

The outsourcing of lending to foreign entities of a banking group diminishes the effectiveness of regulation. Therefore, a range of additional means have to be considered both at the national and EU levels.

At the national level:

- Tax policy should be actively used (eg making interest payments non tax-deductible and removing other tax incentives to the housing sector where they exist; introducing or increasing property taxes).
- Measures to encourage domestic saving should be put in place, such as schemes, perhaps with tax incentives, to promote long-term saving. This would also improve the loan/deposit ratio and thereby limit the potential for unhealthy credit booms to develop.

At the EU level:

- Use the college of supervisors in order to arrive at a common understanding with the home country supervisors regarding the proper conduct of foreign banks' external lending operations. This understanding should be made easier in view of the common interest that both home- and host-country supervisors should have in mitigating systemic risks (provided they perceive it similarly);
- The home- and host-country supervisors should compare the exposure of various banking groups towards a host country as it is illustrated by their consolidated balance-sheets as against those of the subsidiaries in the host country; they should also assess the attempts to optimise the use of liquidity on a regional basis, which may harm local currencies;
- The ESRB and the EFC should address this issue and ask the home-country supervisor to 'internalise' in its policy requirements the host country's risk judgment and concerns regarding the expansion of credit and the 'optimisation' of the use

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19. Brunnermeier *et al* (2009), p65.

20. 'The EU home country authorities should limit the acquisition of subsidiaries in other countries, where appropriate', EFC (2009) p14.

of excess liquidity;

- Systemically important groups are to be monitored in the EU. In CESEE countries the domination of local financial markets by foreign groups is so overwhelming that the criteria that define what is 'systemically important' has to be judged accordingly; interconnectedness should be judged not only on a global basis, but also cross-nationally and regionally. Arguably, the ECB (ESRB), the EC and the Council (through the EFC) should replicate a 'list' for the regionally systemically important players including banks headquartered in most home countries listed in Table 4.2.

For EU members, the risk of destabilising capital inflows leading to credit bubbles has to be addressed through other means. These may include action to reduce the

#### BOX 4.1: CAPITAL CONTROLS

Capital controls are tools that can be used to moderate extensive credit growth. Capital controls have been used more frequently since the Asian crisis and are increasingly considered relevant. There are also studies (eg Ostry *et al*, 2010) that show that capital controls, if used smartly, can help macroeconomic policy in small open economies, as financial markets can be inherently unstable. Thus, contrary to the common perception that capital controls can be easily evaded, they do affect the cross-market premium in a sustainable way (see Yeyati *et al*, 2008, and Rodrik, 2009).

EU member CESEE countries cannot rely on capital controls because the single market prohibits such measures. But in CESEE countries currently outside the EU, capital controls could be considered, and are indeed used, though to a more limited extent in candidate and potential candidate countries because of the association agreements that require phasing in of capital account liberalisation.

The capital controls that are now being proposed are more in the spirit of 'macroprudential regulation, to be taken in response to capital flow surges that have the potential to create bubbles in asset prices, including exchange rates' (Subramanian, 2009). Such measures would therefore be taken during an upswing in the cycle and not at all times. They may also be applied in coordination, by several emerging economies, which may be flooded by short-term capital inflows at the same time. Some CESEE countries may face such a situation in a few years' time and a coordinated response would be appropriate.

demand for credit. Regulatory and tax instruments can for example be used to tame mortgage-credit demand when deemed excessive from a macro-prudential point of view.

Finally, the issue of the *denomination of lending*, ie whether in domestic or foreign currency, also deserves important consideration. Foreign-currency lending has always been a key source of financial instability in emerging countries. It creates two main risks:

1. Balance-sheet problems for un-hedged borrowers in the wake of a severe exchange-rate depreciation and consequent losses for banks;
2. Funding problems for banks: banks may borrow short-term in the wholesale market and lend to borrowers long-term, and market dysfunction may complicate banks' liquidity management.

The first risk is greater in countries with fixed exchange rates. Sharp devaluations would lead to balance-sheet problems across the board, as in any balance of payments crisis. Debt restructuring may be needed. The more gradual introduction of flexibility in the foreign-exchange market would lead to easier balance-sheet adjustments together with an improvement in the current account. Most CESEE countries have sufficient reserves to support gradual correction of the exchange rate. In the process, risks could be diversified and hedged. That may lead to an increase in the use of domestic currency and to a gradual reduction of currency substitution.

However, the need to reduce currency substitution must be assessed considering the specific features of CESEE countries, which differentiate them from, for example, Asian and Latin American countries. First, since new EU member states are obliged to introduce the euro, a very strict regulation or a ban a few years before joining the single currency may not be sensible. This argument has lesser validity in EU aspirant countries. Second, as we have argued in earlier chapters, a substantial real depreciation, such as that which followed, for example, the Asian and Latin American crises in the late 1990s and early 2000s, is unlikely in CESEE countries. Hence, the currency risk would be more related to exchange-rate fluctuations than to collapses, especially in floating exchange-rate countries. Exchange-rate fluctuations meanwhile primarily impact monthly debt-service costs, while the revaluation of the loan is less of a concern if and when the fluctuation is temporary and the loan/collateral ratio does not breach the bank's tolerance limit (which can be mitigated by properly limiting the initial loan/collateral ratio). The key risk factor for a domestic borrower is unemployment, which in any case reduces the ability to service any debt, not just foreign-currency

debts. Third, domestic-currency borrowing also carries an interest-rate risk. Fourth, these countries have been catch-up countries and are also supposed to catch up in the future (albeit at a slower rate). Catching up implies real exchange rate appreciation against the euro. Borrowing in euro allows domestic citizens and firms to reap the benefit of real exchange rate appreciation. An overly strict regulation on euro borrowing would prevent this.

The second risk could be handled by swap agreements between central banks (in particular, between the ECB and regional central banks as discussed in section 4.4.3). Subsidiaries and branches of foreign banks are also likely to receive liquidity from their parent banks.

Having said that, the conditions for fostering local currency denominated credits are to be improved, and measures to contain inflation and to increase the credibility of domestic policymaking – thereby reducing important elements of the risk premium – are essential<sup>21</sup>. Foreign-currency borrowing should be properly regulated, at least in order to make sure that borrowers are conscious of the risk taken. It should be actively discouraged whenever it reaches a level that represents a significant macro-economic risk.

### 4.5 Summary

The financial crisis has put financial stability at the centre of the public-policy agenda in Europe and the US. In most CESEE countries concern about stability has been reinforced by the sudden stop of capital inflows, the consequent adjustment necessitated by large, pre-crisis current-account imbalances, the dramatic fall in output in the wake of the crisis, contagion effects and, not least, the speed at which these effects occurred. Currency risk, liquidity and even solvency risks have become major concerns for policymakers and, in some cases, substantial assistance from IFIs and *sui generis* market coordination devices (such as the Vienna Initiative) have been sought. The worst of the crisis has, quite likely, passed. But the road ahead looks rocky because of the anticipated feeble economic recovery, quasi-stagnation of lending, the repairs that remain to be done to banks' balance-sheets (including deleveraging), and uncertainties surrounding the final shape of regulation and supervision in the EU, though there are major differences between the economies in the spotlight.

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21. The main motivation behind foreign-currency borrowing, from the side of borrowers, is higher domestic interest rates that typically arise due to high and volatile inflation and related uncertainties, including country-risk premia resulting from low credibility.



This chapter attempted to map guidelines for policies to deal with financial markets and to smooth the path towards stability.

Macroeconomic policy has a key role to play, as the track-record of some central European economies shows. Solvency problems and access to liquidity can be eased by a range of tools, which include extending the ECB's facilities in the region, credit enhancement and a not-too-abrupt implementation of a revised Basel agreement on capital requirements. The financial crisis has exposed the tense relationship between home- and host-country regulators and supervisors in a Europe in which cross-border operations are substantial. Crisis resolution and burden-sharing arrangements are therefore essential. Informal and formal instruments for improving this relationship need to be developed. The ESRB and the EFC of the EC can help in this regard. Likewise, the idea of taxing banks as a way to diminish moral hazard and create resources for dealing with distress cases is commendable.

A serious short- and medium-run issue that several CESEE countries face is that some banks may become 'zombies' and, by credit rationing, prevent economic recovery. As most banks generally do not seem to need government support, domestic policymakers can do little to enhance credit resumption via regulatory means. They certainly should improve macro-economic policies to enhance credibility; could devalue in fixed exchange-rate countries; could foster credit through public banks or through domestic development banks; or could create public institutions to buy distressed/rescheduled loans from banks in order to help clean up their balance-sheets. However, most of these options come with drawbacks.

In a few countries, limiting an unhealthy expansion of credit may again be a concern once economies recover. This problem can be addressed using regulatory instruments such as: counter-cyclical capital and reserve requirements, dynamic provisioning against expected losses, stricter limits on leverage, maturity mismatches and speed of lending, and proper regulations to limit foreign currency denominated lending. When there is significant 'outsourcing' of lending it is essential that host-countries cooperate with home-country regulators and supervisors so that excessive indebtedness is avoided. EU-level colleges of supervisors can help in this respect, as can the ESRC and the three new market authorities (which are to be set up in 2011), and the EFC. While capital controls are prohibited in the EU, they represent an option for candidate countries.

CESEE countries also stand to benefit from the badly needed radical reform of the regulation and supervision of financial markets, for which the Turner Report in the UK,

the de Larosiere report in the EU, reports of the EP, and the Volcker proposals in the US, for example, provide a lot of analytical and prestige-based power. The reforms should cover a broadening of regulation and supervision to all financial entities, limits on leverage, standardisation and exchange-house trading of derivatives, avoidance of pro-cyclicality via capital requirements, discouraging regulatory arbitrage, dealing with the too-big-to-fail syndrome and systemically important institutions, and the correcting of incentives and reduction of conflicts of interests.

# 5. Budgetary policy and the sustainability of public finances

## 5.1 Introduction

In most of the countries this report focuses on, budgetary policy was not at the forefront of the policy debate until worries about sovereign debt started to develop in the wake of the Greek crisis. There were certainly exceptions – notably Hungary – but private-credit growth and exchange-rate issues examined elsewhere in this report were considered more pressing, and rightly so. The policy landscape has however changed as a consequence of the rise of public deficits and public-debt ratios and with the widening of sovereign spreads since the collapse of Lehman Brothers. This only adds to the need for a serious discussion of the public-finance constraints the CESEE countries are now facing.

What are the characteristics and constraints of fiscal policies in CESEE countries? What, if anything, ought the EU to do? And what can it do? In the following, we start by addressing the sustainability issue. We then take up the ability to tax and the stability of tax revenues. Finally, we discuss the policy space and the role of rules. The overall argument we make is as follows.

Fiscal constraints can be lax in catch-up economies which are financially integrated with advanced economies' capital markets, but over the last decade most countries considered here have not abused this situation. However, lasting effects of the crisis on tax revenues are potentially significant and fiscal risks are significant also. Sustainability and structural balances will not be threatened if the non-cyclical-non-interest expenditure/GDP ratio is restored and the return to potential growth rates is achieved in the medium run. But the budgetary challenge may become significant if growth disappoints or restoration of the expenditure/GDP proves unsuccessful.

Given the sustainability and risk arguments and the empirical evidence, three policy recommendations can be drawn.

- First, fiscal rules for converging economies need to focus on sustainability, rather than on the straightforward application of the Maastricht and the Stability and Growth Pact criteria;
- Second, counter-cyclical policy should be implemented around the debt-stabilising fiscal deficit with a view to reaching the target public-debt ratio (which may be different for different countries);
- Third, the pricing of fiscal risks should be encouraged by the EU with a view to making counter-cyclical fiscal policy possible.

### 5.2 The crisis and fiscal balances: some comparisons

At the peak of the financial crisis and again in spring 2010, some CESEE countries, especially Hungary, faced problems with placing government bonds. Hungary and some other countries had to turn to the IMF and the EU for financial and policy support. Acute fiscal problems have for the most part proved to be short lived but the issue of sustainability has remained – in part because of the fall in public revenues owing to a sharp fall in output in most countries, and in part because of a sharp increase in fiscal risk as a result of exchange-rate movements and rising problems with the financing of private debt. All of that has prompted a discussion of the urgency of fiscal consolidation and of the need to reform the public sector and improve the system of taxation. The argument for urgency depends in part on the assessment of the sustainability of public finances. The other arguments for urgency depend on the contribution of public-sector reforms and of the taxation system to the sustainability of public finances.

In order to address some of these issues, it makes sense to look at the fiscal record of the CESEE countries with a view to answering the following questions:

- Were they unsustainable prior to the crisis?
- How stable are the revenues or how strong is the ability to tax?
- What is the impact of the crisis on structural fiscal balances?

Before answering these questions, it may be useful to compare the fiscal problems of transition countries with those that are emerging in some of the countries in the euro area<sup>1</sup>. This is necessary anyway in order to assess the internal consistency and viability of the institutional and policy framework for monetary and fiscal governance in

the European Union and in the euro and euro-dominated area.

Greece, Bulgaria and Hungary are admittedly outliers prior to the crisis, though in different ways, but they illustrate the principles that need to be understood in order to see what sustainability of fiscal balances means in the euro area or in the wider monetary area closely integrated with the euro.

In the case of Greece (Figure 5.1), it is easy to see the advantage of euro accession<sup>2</sup>. Nominal GDP growth remained relatively stable until the recent crisis, but the interest rate on public debt (the so-called implicit interest rate, which is the actual interest paid divided by public debt) declined in order to converge to the euro-area interest rate. This changed the entire dynamics of public debt and led to a stabilisation of the debt-to-GDP ratio, though Greece did continue to run significant fiscal deficits<sup>3</sup>. The public-finance benefits of joining the euro were entirely passed on to taxpayers, consumers of public services, and public employees, instead of being used to reduce the debt ratio. When the crisis hit, the debt ratio started to rise again.

Bulgaria was a very different case (Figure 5.2). After price stabilisation and the introduction of the currency board based on the euro, the interest rate on public debt declined to a level that was similar to that in Greece. However, Bulgaria adopted a policy of fiscal balance which led to a steady decline of its public debt to GDP ratio. Indeed, in the years with exceptionally high growth rates of GDP, Bulgaria ran fiscal surpluses.

The Hungarian case illustrates the temptation to misuse the relaxation of the budget constraint. The country experienced some drop in the interest rate on public debt and for several years the implicit interest rate remained at the level of the growth rate of GDP. This created the temptation to run primary fiscal deficits (Figure 5.3). Poland at times ran a similar policy.

The risks of such policies became apparent with the advent of shocks to the growth rate and to the interest rate spreads. It is, however, not easy to determine what are the prudent levels of public debt and fiscal deficit in view of possible growth and financial shocks. This is because the appropriate level of debt and sovereign solvency respectively depend on the creditors' willingness to lend and on the citizens' ability and willingness to pay – which determine the stability of public revenues<sup>4</sup>. Indeed,

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1. For a useful treatment see European Commission (2009c) and CESifo (2010).

2. All data is from DG ECFIN, General Government Data, Spring 2010.

3. Forecasts are from DG ECFIN.

Figure 5.1: Public debt, nominal growth and nominal interest rates, Greece

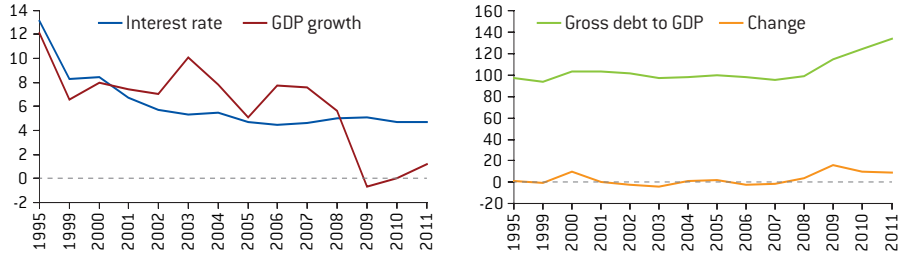


Figure 5.2: Public debt, nominal growth and nominal interest rates, Bulgaria

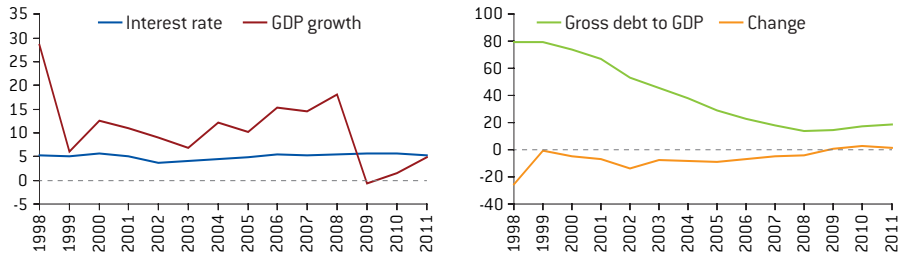
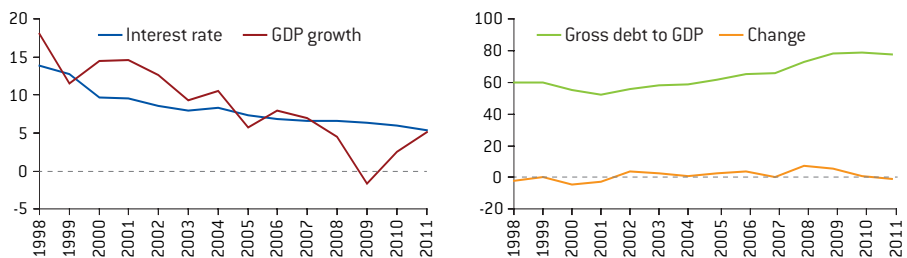


Figure 5.3: Public debt, nominal growth and nominal interest rates, Hungary



Source for all figures: DGEFCIN, General Government Data, Spring 2010.

some recent sovereign defaults occurred at reasonably low levels of debt. For example, among recent cases of government default, the public debt-to-GDP ratio in the year before the government default was 37 percent in Ukraine, 45 percent in Argentina, 54 percent in the Russian Federation and 66 percent in Ecuador (Sturzenegger and Zettelmeyer, 2006).

### 5.3 Sustainability, level of public debt, and pro-cyclical policies

It is well-known that a country can stabilise its debt-to-GDP ratios at any level by not running primary fiscal deficits as a percentage of GDP that are higher than the difference between the real interest rate and the growth rate, times the debt ratio. This relationship comes from the following elementary debt-dynamics equation:

$$(D_t/Y_t)-(D_{t-1}/Y_{t-1}) = (PD_t/Y_t) + \{(D_{t-1}/Y_{t-1}) * [(i_t - y_t)/(1 + y_t)]\} + SF_t \quad [1]$$

where  $Y$  is GDP at current prices,  $D$  is general government debt,  $PD$  is primary deficit,  $i$  is the implicit nominal interest rate (actual interest paid divided by the stock of debt),  $y$  is the nominal GDP growth rate,  $SF$  is the stock-flow adjustment and  $t$  stands for time<sup>5</sup>. Therefore, the change in the debt-to-GDP ratio depends on the primary deficit,  $PD$ , on the so-called snowball effect, the second term on the right-hand side  $(D_{t-1}/Y_{t-1}) * [(i_t - y_t)/(1 + y_t)]$ , and on the stock-flow adjustment,  $SF$ , which basically captures the various factors that influence changes in the valuation of the stock of debt. These three factors contribute to the evolution of the public debt-to-GDP ratio – a negative contribution meaning a contribution to a decline, and a positive one a contribution to an increase<sup>6</sup>.

If the stock-flow adjustment is put aside, the debt-to-GDP ratio does not change if the primary deficit and snowball effects cancel out.

$$PD_t/Y_t = (D_{t-1}/Y_{t-1}) * [(i_t - y_t)/(1 + y_t)] \quad [2]$$

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4. On this issue it is still useful to consult Milesi-Ferretti and Razin (1996); see also Blanchard (1990) and Fedelino, Ivanova and Horton (2009).
  5. The stock-flow adjustment variable is added to the accounting equation to account for statistical discrepancies, including those arising from the existence of government financial assets or from revaluation effects when some of the debt is in foreign currency and the exchange-rate changes. An implicit assumption in equation (2) is that they are nil. This variable also provides a consistency check that helps to spot creative accounting practices. For some data see European Commission (2009c).
  6. For more see wiiw and CEPS (2009), and also the European Economic Forecast Autumn 2009 and Baunsgaard and Symansky (2009).

If the interest rate on debt is lower than the growth rate of GDP, the country can run a primary deficit while keeping its debt ratio constant. If the interest rate is higher than the growth rate, a primary surplus will be needed to stabilise the debt-to-GDP ratio.

Most of the CESEE countries have run budget deficits, but until 2007 their public debt-to-GDP ratios were stable or declining (see Figure 5.4.). The reason is easy to see: the cost of debt was more than offset by growth.

The onset of the crisis in 2008 and its twin effects on growth and budgetary deficits changed the equation dramatically. All countries have experienced a rise in the debt ratio, sometimes dramatically.

Before drawing conclusions it is useful to compare developments in the CESEE region to developments in other emerging market regions (Figure 5.5) in the euro area (Figure 5.6). Other emerging countries had similar developments to CESEE: the interest rate was well below the growth rate in most years. Among the euro-area countries, in all the countries surveyed but Greece, Ireland and partly Spain, the interest rate throughout the euro membership period has in fact been above the growth rate or at a similar level, implying that primary surpluses were required to keep the debt ratio constant or to allow it to decline.

Based on the record so far, within the wider euro area (consisting of countries that are members of the euro and countries whose exchange rate is pegged to the euro) the benchmark interest rate on sovereign debt (ignoring country-specific risk premia) can be expected to be above the growth rate in developed countries, but below in the less-developed countries of the CESEE region - provided they continue to experience catching-up. This, of course, is potentially a condition for bubbles to develop (the No-Ponzi Game condition in the usual sense is not binding)<sup>7</sup> and could induce these countries to run high fiscal deficits.

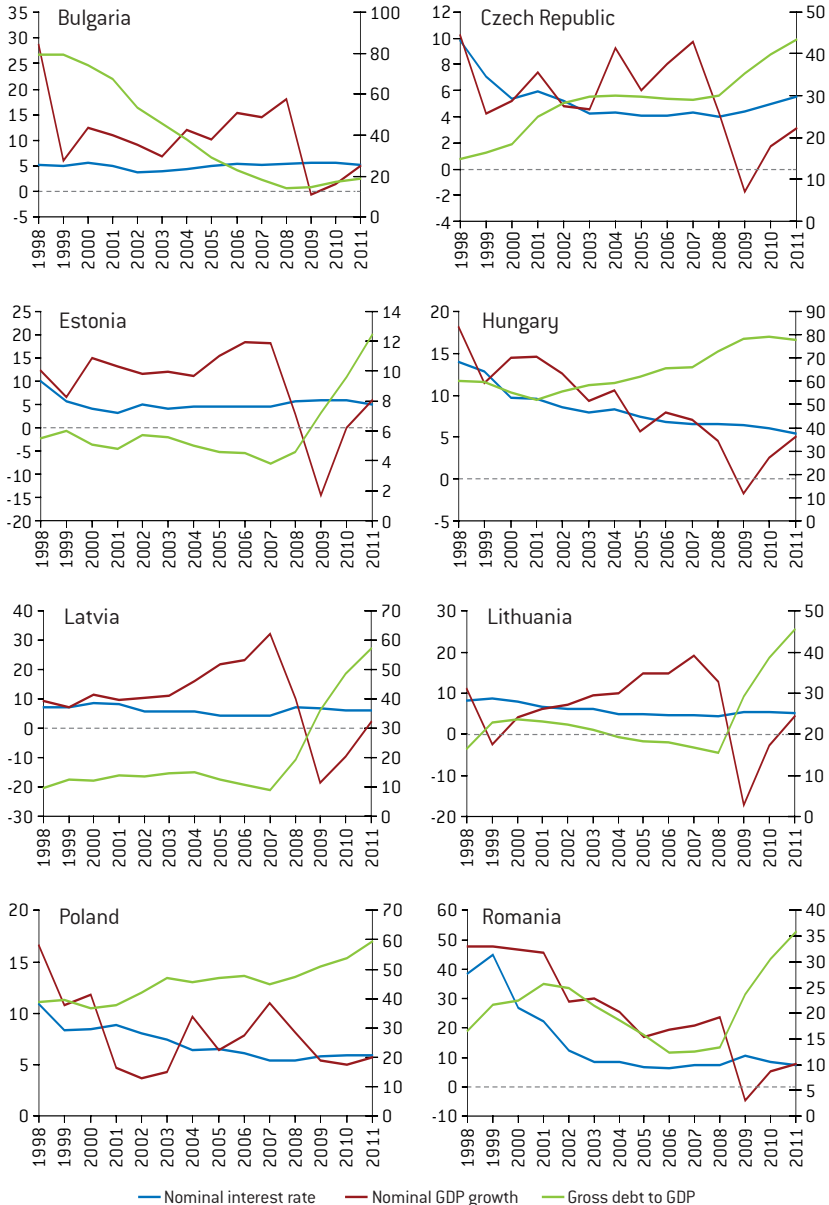
What do we find their fiscal policies have in fact been? Prior to the crisis most CESEE countries experienced fiscal deficits, even when their growth rates were high and most probably above potential, but those deficits were not high enough to result in rising public debt. On the contrary debt ratios were at very low levels in all countries but Hungary and to a certain extent Poland. Hungary especially was a clear outlier, as it had an increasing public debt-to-GDP ratio until it had to embark on consolidation after the parliamentary election of 2006, an attempt made even more important by

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7. For some generalisations, see Blanchard and Weil (2001).



Figure 5.4: Public debt, nominal growth and nominal interest rates (CESEE)



Source: Eurostat, European Commission, DG ECFIN, Spring 2010 and IMF World Economic Outlook April 2010 database. Note: implicit nominal interest rate and nominal GDP growth rate are shown on the left scale; gross public debt/GDP is shown on the right scale.

Figure 5.4, continued

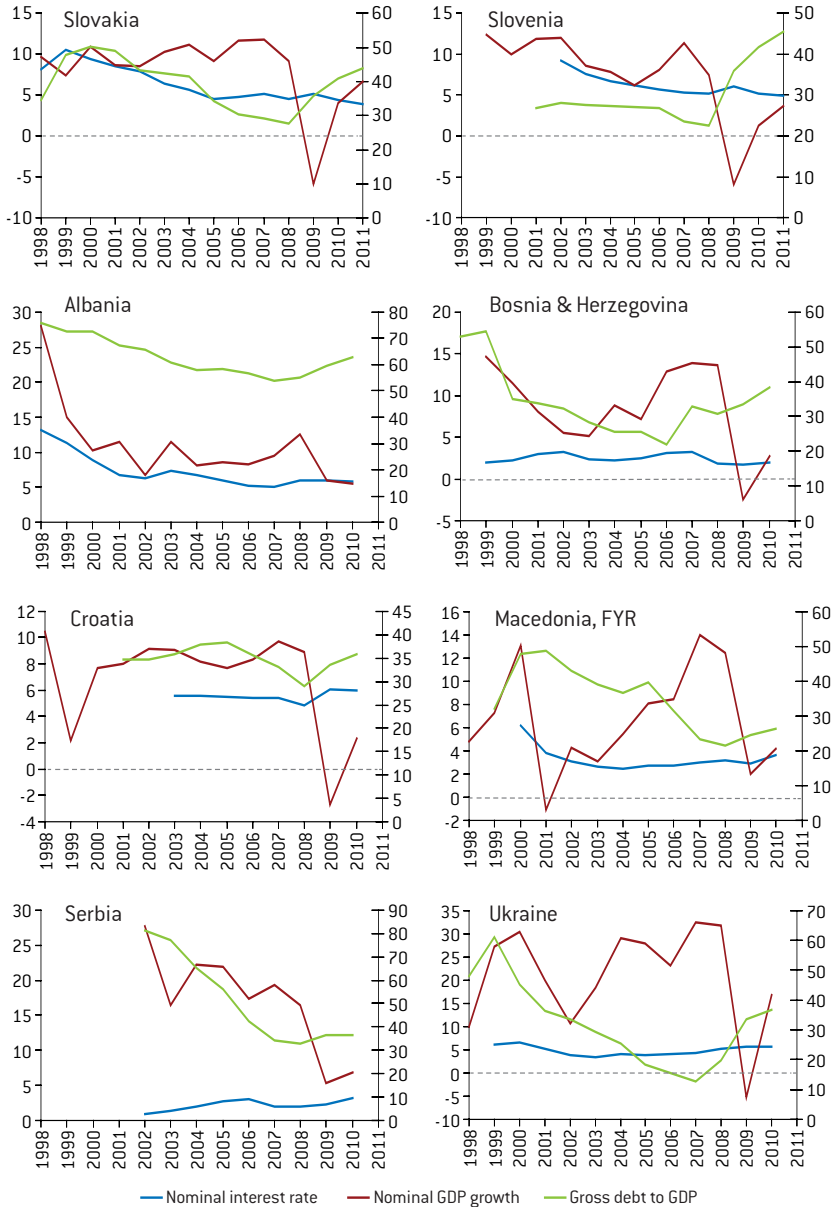
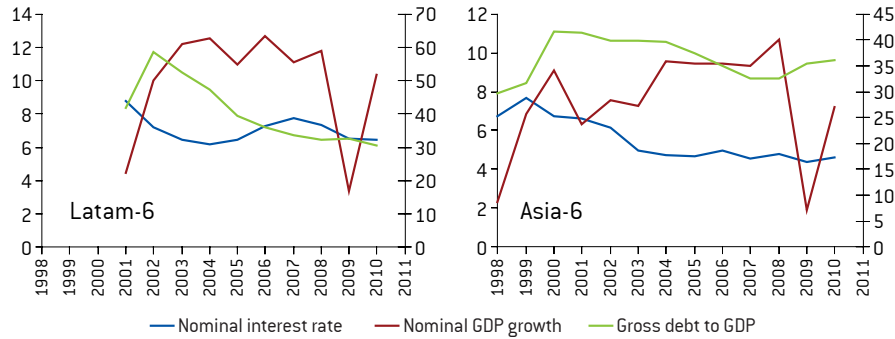
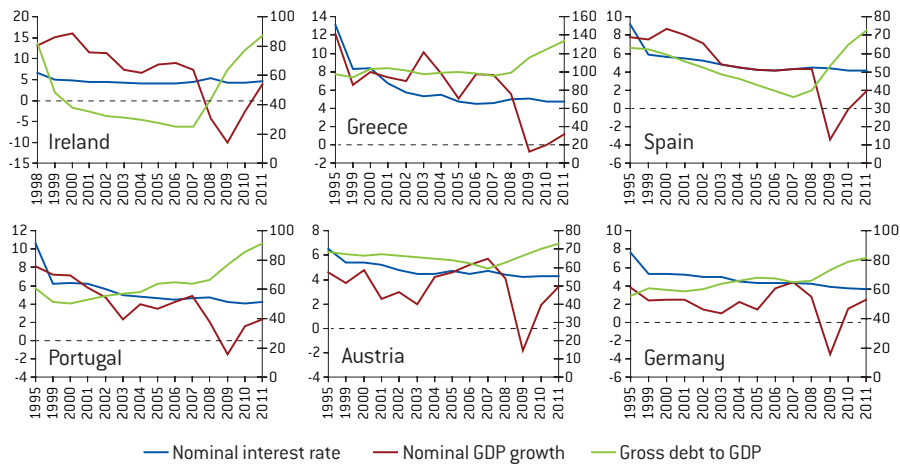


Figure 5.5: Public debt, growth and interest rates (other emerging countries)



Source: IMF World Economic Outlook April 2010 database. Note: Latam-6 is the average of Latam-8 countries (see Box 1.1) except Peru and Uruguay. Note: implicit nominal interest rate and nominal GDP growth rate are shown on the left scale; gross public debt/GDP is shown on the right scale.

Figure 5.6: Public debt, nominal growth and nominal interest rates (euro-area countries)



Source: Eurostat, European Commission, DG: ECFIN, Spring 2010. Note: implicit nominal interest rate and nominal GDP growth rate are shown on the left scale; gross public debt/GDP is shown on the right scale.

its IMF/EU adjustment programme in late 2008.

It may be concluded from the above that the fiscal experience of most of the countries in central, eastern and south-eastern Europe has been characterised by stable or declining public debt-to-GDP ratios, but only in some cases by counter-cyclical policies in the usual sense, ie only few countries ran fiscal surpluses in the periods when they experienced above-potential growth performance<sup>8</sup>.

Summing up, most countries did not succumb to the temptation of fiscal irresponsibility in spite of the laxity of the fiscal constraint they were facing.

### 5.4 Structural balance: revenues and expenditures

In order to be able to assess the possible impact of the crisis on structural balances, it is worth taking a look at revenue and expenditure developments in relation to GDP (Figures 5.7 and 5.8). In CESEE countries public expenditures are certainly high, on average around 40 percent of GDP, but revenues are high too. In Latam-6 the expenditure/GDP ratio is around 30 percent, while in Asia-6 it is only around 20 percent. The CESEE expenditure ratios are therefore closer to the EU15 values which were, on average, around 45 percent of GDP before the crisis.

While there is a differentiation across CESEE countries (Figure 5.8), most of them have been able to collect around 40 percent (and not less than 30 percent) of GDP in taxes and contributions<sup>9</sup>. Therefore, public revenues have proved to be quite stable, though tax systems can certainly be improved.

There is an argument to be made from Wagner's Law that current levels of public expenditure are too high given these countries' level of development. This, however, needs to be controlled for the difference in demography. These countries have the demographic characteristics of much more developed nations, so their social obligations and thus social-security systems inevitably differ from other countries at a similar level of development but with much younger populations<sup>10</sup>.

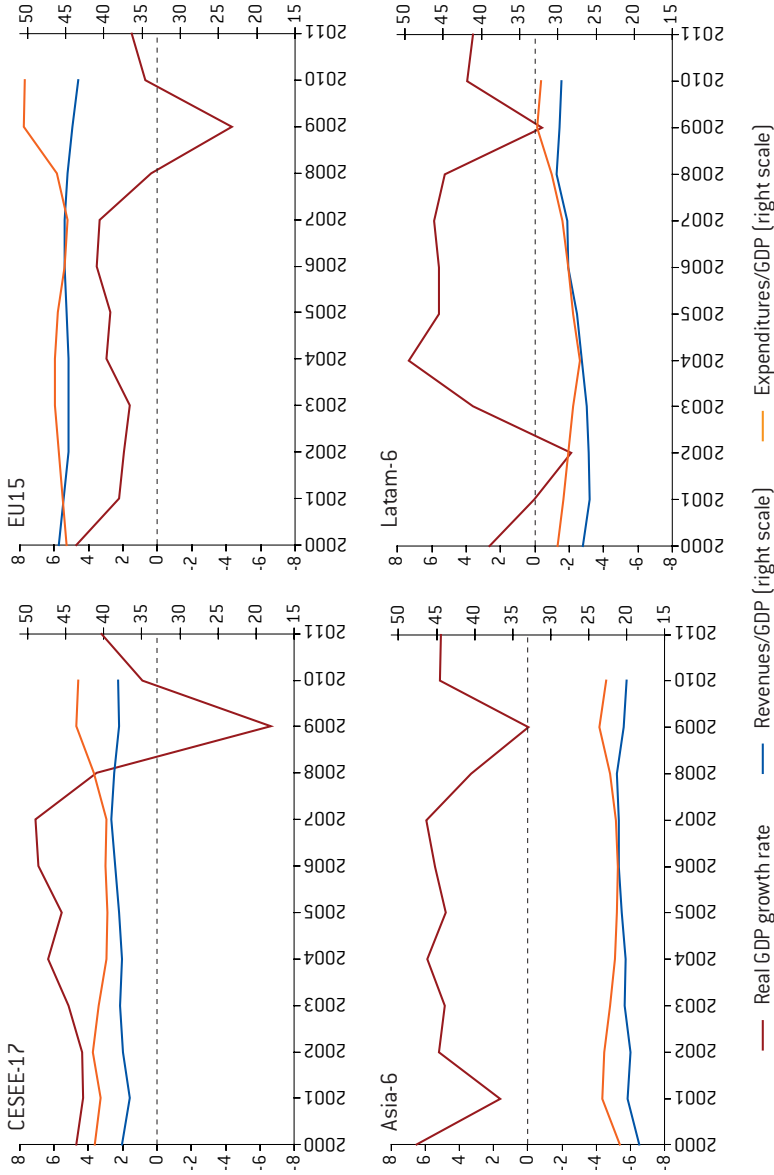
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8. The results of vector-autoregression estimates by Darvas (2010a) show that most CESEE countries followed procyclical fiscal policies before the crisis.

9. Other revenues tend to be small, except for transfers from EU funds.

10. This is an argument to explain the relatively high levels of social-security spending in CESEE economies. It is not an argument in favour of high public-debt development as this requires an analysis of provision to be made to deal with ageing patterns into the future.

Figure 5.7: General government revenue and expenditure (% GDP) and real GDP growth (%) in main regions, 2000-11



Source: European Commission Spring 2010 forecasts and IMF World Economic Outlook Database, April 2010 Note: Latam-6 is the average of Latam-8 countries (see Box 1.1) except Chile and Peru.

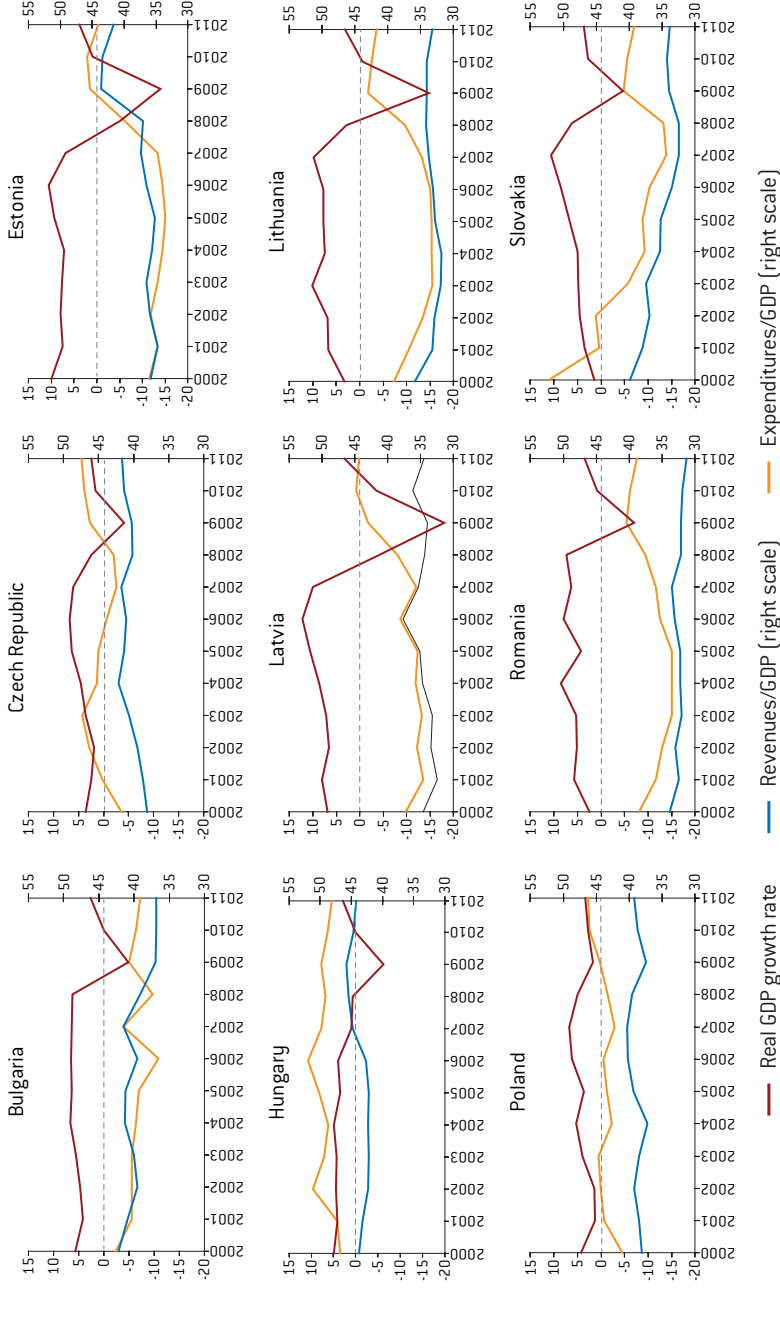
Considering the impact of the crisis, we can observe increases in the expenditure/GDP ratios in all regions: about two, three, four and six percentage points of GDP in Asia-6, Latam-6, CESEE-17 and EU15, respectively (Figure 5.7). However, the assessment of these increases needs to consider growth development and policies implemented. The CESEE region is unique: it experienced the most dramatic output fall and with a few exceptions countries in the region embarked on fiscal consolidation. In the other three regions GDP developments were more favourable (smaller fall in EU15, no fall in Asia-6 and Latam-6 in 2009) and almost all countries of these three regions let automatic stabilisers operate and even implemented discretionary fiscal stimulus.

On the other hand, revenue/GDP ratios have not been impacted much by the crisis: this ratio, on average, remained almost constant in CESEE countries (and also in the other three regions). This is not surprising, since most revenues come from the taxation of income and consumption, which broadly move together with GDP developments (even though the elasticities of various revenue components to GDP growth may be somewhat different).

Unfortunately the pre-crisis period does not tell us what to expect after the current crisis for two reasons. First, during the period shown there have not been severe shocks to public revenues. It was only in Macedonia that real GDP fell (in 2001), but none of the other countries experienced a recession during this period. There was a growth deceleration in the early 2000s in Poland and the Czech Republic, but real growth was still positive at two percent per year. When growth accelerated, fiscal deficits were reversed. But in the current crisis most CESEE faced deep recession and even nominal GDP has also declined in most countries.

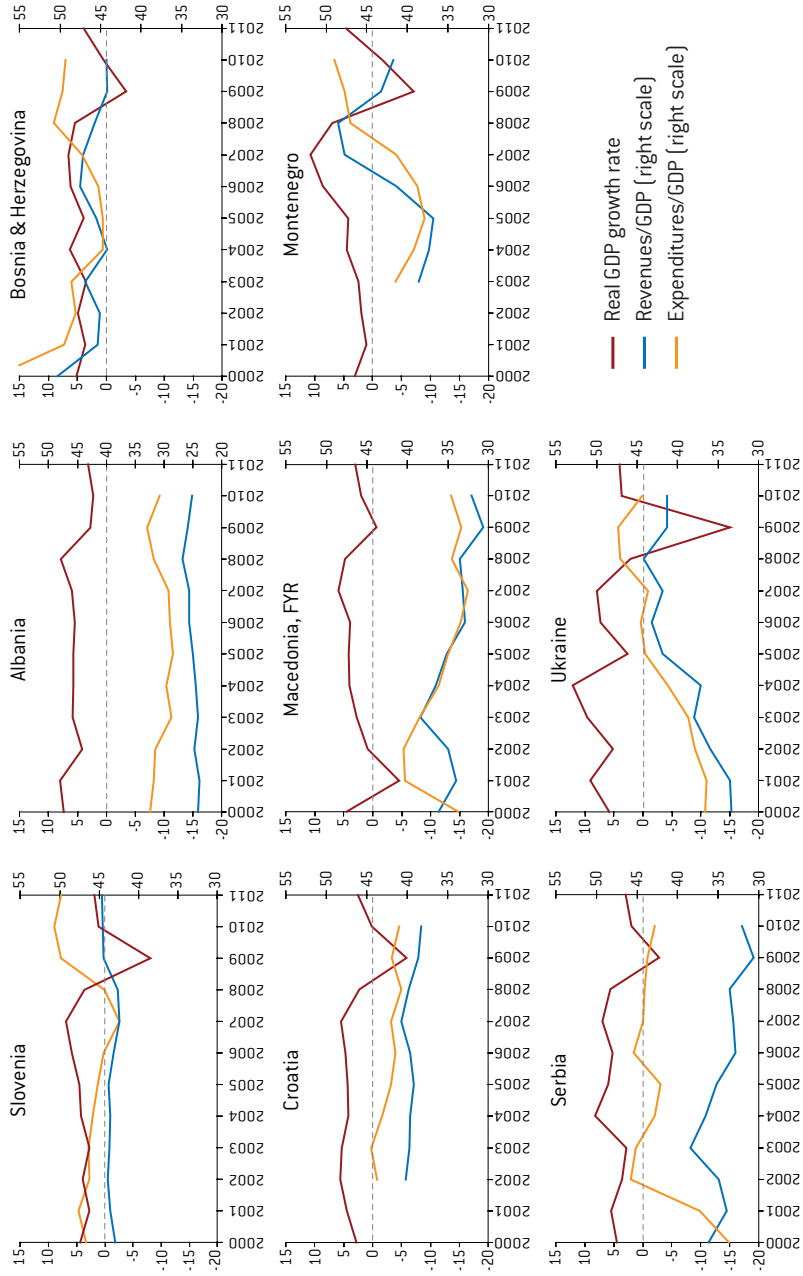
Second, the historical developments in the ratio to GDP of the main fiscal aggregates also depended on the policy response. However, if fiscal policy played a role in adjustments, it indicates that these countries have the ability to alter fiscal policy when needed. The current crisis provides ample examples to support this point. Most CESEE countries were able to implement significant fiscal consolidation at the time of a deep recession. Table 5.1 shows that while expenditures increased by 19.2 percent in CESEE-17 in 2008, in 2009 the nominal growth was just half of one percent, which implied a 2.6 percent decline in the real value of expenditure. There were only five CESEE countries in which real government expenditure grew in 2009: Czech Republic (3.6 percent), Poland (5.2 percent), Slovenia (6.3 percent), Slovakia (6.5 percent) and Albania (7.0 percent). In all other countries real, but also in general nominal, expenditure has fallen. The most dramatic adjustment was implemented in Latvia,

Figure 5.8: General government revenue and expenditure (% GDP) and real GDP growth (%) in CESEE countries, 2000-11



Source: European Commission Spring 2010 forecasts and IMF World Economic Outlook Database, April 2010. Note: all panels have the same scaling, except the right axis of the panel of Albania.

Figure 5.8, continued





where nominal expenditure fell by 17.0 percent in 2009 (19.6 percent fall in real terms). Yet such a drastic fiscal adjustment could not prevent the expenditure/GDP ratio from rising - from about 35 percent of GDP to 45 percent (Figure 5.8). In contrast to CESEE developments, in Asia-6 and Latam-8 the slowdown in real expenditure growth was moderate and in the EU15 real expenditure growth even accelerated in 2009 due to the work of automatic stabilisers and discretionary fiscal stimulus.

Looking forward, we can clearly conclude that the *ability to tax* has not been diminished, thus the elasticity of public revenue can be taken to remain unaffected. The assessment of the increase in the *expenditure/GDP* ratio as a consequence of the crisis primarily depends on future development of GDP. There are three main cases.

- The recent economic downturn is purely cyclical and GDP will return to the pre-crisis trendline; ie neither the long-run level nor the growth rate of potential output is affected;
- Part of the recent economic downturn is permanent, but the potential growth rate is unaffected; ie GDP will not return to the pre-crisis trendline but it will develop at a permanently lower level, at the same speed as before;
- Part of the recent economic downturn is permanent and the potential growth rate is also reduced.

**Table 5.1: Average annual changes in total general government expenditure**

	Nominal percentage change					Real percentage change				
	2006	2007	2008	2009	2010	2006	2007	2008	2009	2010
CESEE-17	14.3	16.9	19.2	0.5	3.9	9	11.3	9.2	-2.6	1.8
EU15	4.2	5.1	6.3	5.4	1.8	1.9	2.9	2.8	4.8	0.6
Asia-6	10.1	11.2	14.2	6.9	4.7	4.6	8	7.3	5.3	1.4
Latam-8	15.6	16.6	20.8	13	10.1	9.9	11.1	12.7	8	5.2

Source: IMF World Economic Outlook Database, April 2010.

In the first case no fiscal consolidation is needed: the rise in expenditures/GDP ratio will be restored when GDP returns to the pre-crisis trendline; just the debt/GDP ratio is increased. In the second case efforts may be needed, while in the third case efforts are surely needed to restore the expenditures/GDP ratio. We shall elaborate upon these issues later with the help of some stylised numerical simulations.

Against this background, the key policy questions are:

1. Which of the three possible paths described above GDP will follow;
2. If there is a risk that debt will reach alarming levels; and
3. If the interest rate-growth rate nexus that contributed to making macroeconomic conditions conducive to the sustainability of public finances is likely to be significantly altered in the medium run.

The answer to the first question is uncertain for the CESEE countries, as it is for western European countries. CESEE countries (with a few exceptions) suffered from a more severe shock and their recovery is also slower than in other emerging countries worldwide (see chapter 1). We have noted in the previous chapters that the crisis could have a lasting impact on growth models, especially among the less-developed countries of the Baltics and the Balkans, where the adjustment of private-sector vulnerabilities will take a long time. This suggests that the third GDP scenario (reduced level and growth rate) may apply for a significant group of CESEE countries.

The second question is easier to answer. As the recession hits, there is no doubt that the crisis will result in a stepwise increase of the public debt-to-GDP ratios, but as initial levels are generally low, this shock effect should not by itself result in threats to sustainability, though there is no easy way to ascertain whether the public debt-to-GDP ratio is too high for fiscal policy to be sustainable.

Much depends on private debt developments. For example, seven of the eight countries in the broader CESEE region that had to turn to the IMF for financial assistance in 2008-2009 had very low levels of public debt. In 2007, ie the year before the crisis, their debt/GDP ratios ranged from nine percent in Latvia to 34 percent in Serbia. The eighth country, Hungary, had a ratio of 66 percent, which was also not too high. The main reason why these countries were unable to secure financing of their budget deficit was not the level of government debt but the risks inherent in their private debt. We shall elaborate upon these issues in more detail in section 5.5.

The most difficult question is the third one. The need to adjust the primary sur-

plus/deficit depends on the relationship between the growth rate and the interest rate and in the success in bringing back the expenditure/GDP ratio to its pre-crisis level. If the growth rate or the interest rate have changed permanently, or part of the increase in the expenditure/GDP ratio is permanent because of the permanently reduced output level, fiscal adjustment may be necessary<sup>11</sup>.

Figure 5.9 provides an illustration of a variety of debt dynamics for an economy whose debt ratio was initially stable at 40 percent of GDP. Three scenarios are depicted where we assume – common to all three scenarios and relative to the pre-crisis growth path – an initial output shock of 10 percent of GDP, which produces an output gap of five percent in the year of the crisis (assuming that pre-crisis the output gap was zero). In the crisis year we can see in all the three scenarios a deterioration of the primary deficit (the underlying assumptions are an increase in cyclical expenditure-to-GDP of 20 percent of the output gap and constant public revenues-to-GDP) and consequently a jump in the debt-to-GDP ratio (as GDP falls and the primary deficit increases).

The three scenarios illustrate the issue of debt sustainability. Scenario 1 depicts a situation in which the pre-crisis (potential) growth rate-interest rate differential (of two percentage points: five percent output growth, three percent interest rate) is re-established after the crisis year and furthermore the output gap is eliminated over a five-year period so that actual output growth exceeds potential output growth over this period. Once recovery sets in non-interest-non-cyclical expenditure is frozen until the non-interest-non-cyclical expenditure-to-GDP ratio reverts to the pre-crisis level (the revenue-to-GDP ratio was assumed to remain constant throughout). We can see that in this scenario the economy moves onto a higher debt-to-GDP growth path which can persist for a long time, but sustainability is not in danger. If, however, persistent changes in the structural deficit occurred during the crisis these would have to be corrected.

Scenarios 2a and 2b, on the other hand, show the situation in which the pre-crisis growth-interest rate differential gets squeezed significantly (from two percentage points to just 0.5 of a percentage point: 3.5 percent output growth, three percent interest rate). In scenario 2a it is assumed that the economy reverts to pre-crisis ratios of non-cyclical-non interest rate expenditure to GDP and – in line with scenario 1 – also keeps the revenue-to-GDP ratio constant. This amounts to maintaining the same primary structural deficit ratio as before the crisis and it leads to non-sustain-

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11. See Barro (1979). For qualifications see Chari and Kehoe (1999).

ability of the public-debt situation. In this case an adjustment in the non-cyclical primary deficit is required to achieve fiscal sustainability. In the illustrated case (see scenario 2b) it requires an adjustment of the long-run primary deficit of 0.5 percent of GDP.

The above scenarios demonstrate that the crucial issues regarding debt sustainability are if:

- There has been a long-run squeeze in the growth rate-to-interest rate differential; this is a case which we have argued in this report is likely to happen in Europe's catch-up economies due to somewhat reduced longer-term growth prospects (see chapter 2)<sup>12</sup>;
- The economies before the crisis had stable or declining debt-to-GDP ratios which indicates whether fiscal policy fully exploited the growth-to-interest differential and they built up some room for manoeuvre. This also determines whether there is greater or lesser need for fiscal consolidation (ie adjustment in non-cyclical expenditure or revenue-to-GDP ratios);
- The crisis-induced permanent changes in public spending to GDP<sup>13</sup>. In this case, fiscal adjustment might again be required even if the longer-run growth rate-interest rate differential might not have declined.

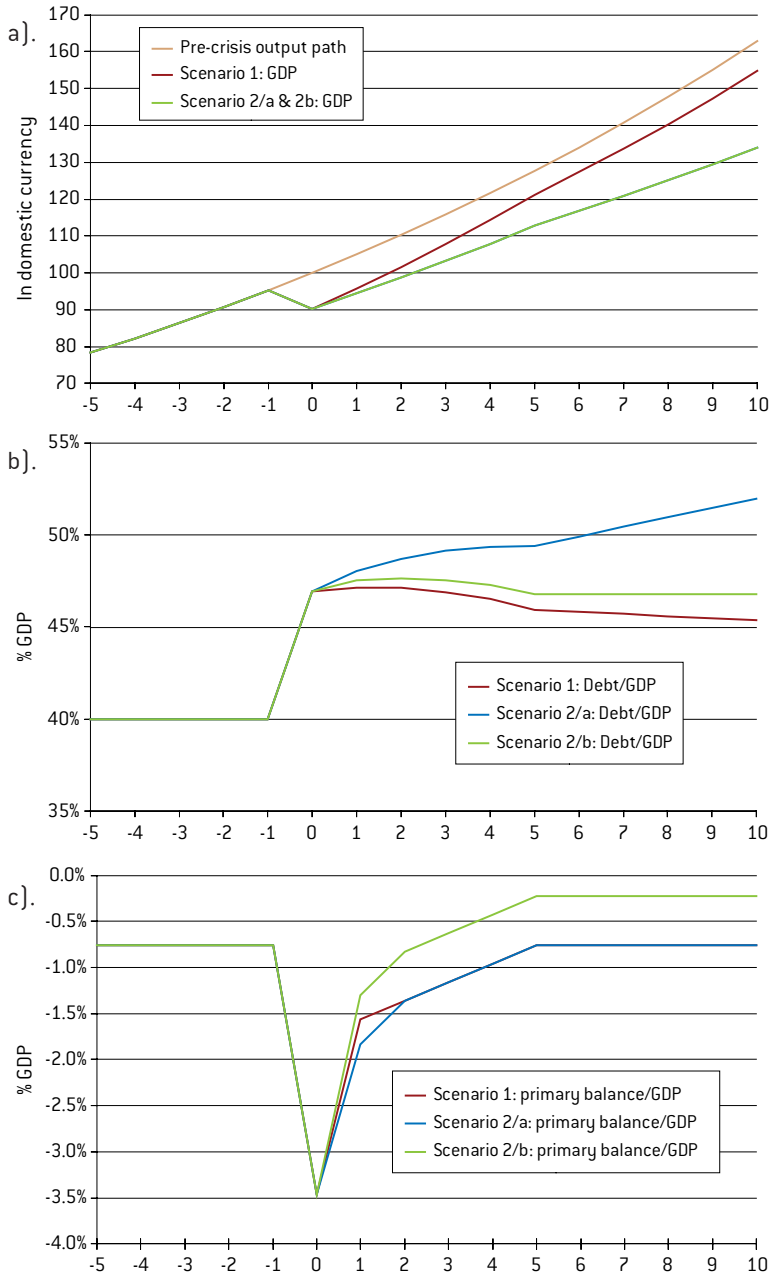
What the above discussion and illustrations underline is that the major issue for the CESEE countries is whether the crisis will permanently affect the output level and the growth performance and how particularly public-spending patterns react to such a situation. If there are no permanent changes the budgetary situation, while less benign than pre-crisis, will remain tractable without major adjustments to spending and taxation. If part of the output loss is permanent and the growth performance is permanently affected, however, this would in a number of CESEE economies require further adjustment in the structural deficit to avoid threats to the sustainability of public finances.

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12. The growth rate-interest rate differential can also be squeezed through an increase in the rate of interest at which fiscal authorities can borrow. Given the climate in the financial markets following the crisis and the jump in public debt, this is also a likely scenario in Europe's catch-up economies. However, we would still argue that the likely longer-run scenario is one with a positive growth rate - interest rate differential in this group of economies as in a financially integrated area catch-up economies will still be able to benefit from a 'snowball effect' as they did in the past. This might of course not apply to all countries and over all periods, as growth might stall and gross fiscal indiscipline might set in to which financial markets might react.

13. In addition to the permanent downward shift in output, this could also be attributable to eg a longer-run need to support a larger unemployed or inactive labour force resulting from hysteretic effects of the crisis on the labour market.

Figure 5.9: Debt sustainability scenarios



Source: authors' calculations.

## 5.5 Private and public debt

A further key issue to consider before assessing the urgency of the need for fiscal consolidation is the relationship between public and private debt developments<sup>14</sup>. Large increases in public debt are not just the consequence of deficits or of recessions, but they are also connected to the refinancing of private debt.

Before the crisis there was a stark difference in all countries in the region between the stability or, often, the decline of public-debt ratios and the sharp rise of private-debt ratios (Figure 5.10). There is no doubt that the private-debt overhang will prove to be a problem and will be a drag on growth, and thus on public finances.

Let us discuss a few examples. Prior to the crisis the Czech Republic and Slovakia exhibited declining public debt-to-GDP ratios and relatively low private debt-to-GDP ratios. In all other countries, however, the private-debt ratio was on a fast increasing path. Developments in these countries were in fact rather similar to those observed in Spain, Portugal and Ireland, but not for example in Germany or Austria (Figure 5.11).

The relationship between public-debt developments and asset bubbles may be useful to highlight. Fiscal sustainability can be defined via the valuation equation for public debt, which is that the present value of future primary surpluses has to equal the public debt. If the interest rate on public debt is below the growth rate, the valuation equation may be violated and fiscal bubbles are possible. Similarly, private sector assets reflect a present value of future revenues. However, if interest rates are low, the value of the assets may be above their fundamental value (that is, the value determined by the valuation equation), which means that there will be a bubble in the market for assets<sup>15</sup>.

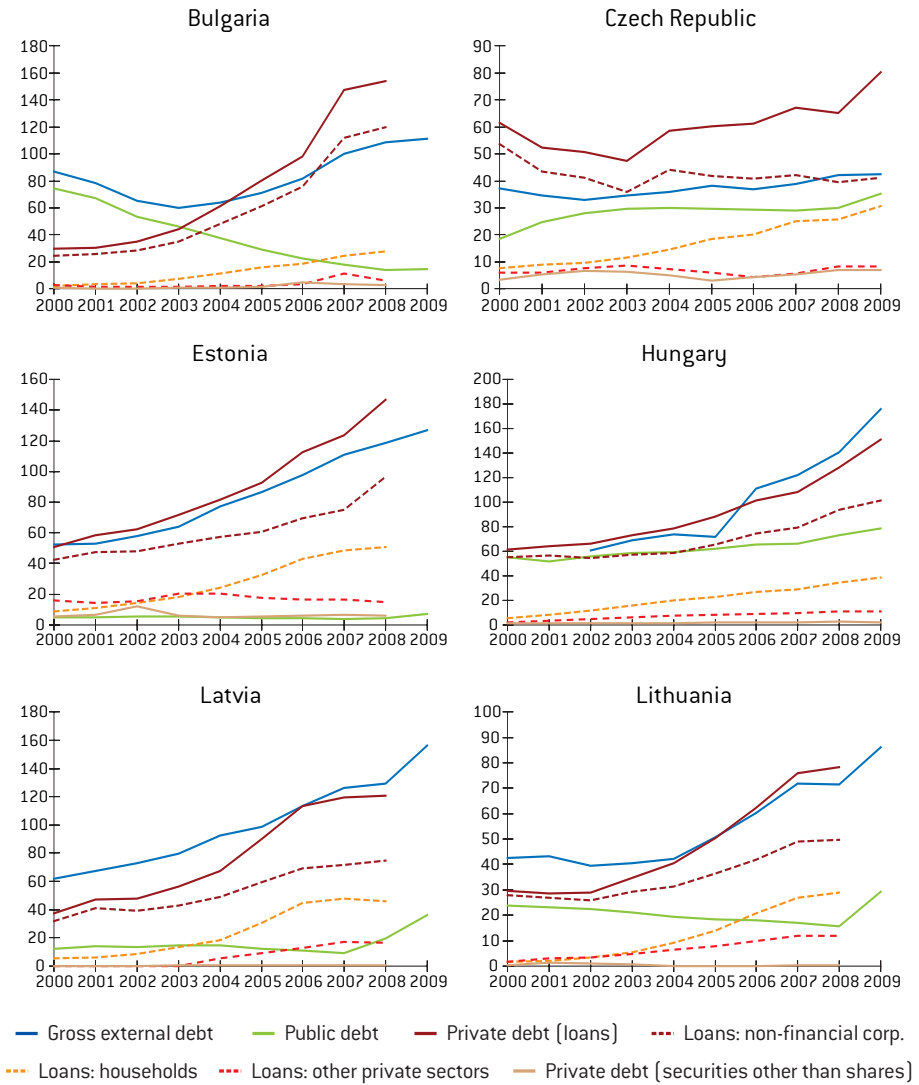
It is the collapse of private demand (investment and consumption) that has been characteristic of this crisis. It has triggered a collapse of public revenue and the widening of fiscal imbalances. From this it may be inferred that higher fiscal deficits and growing public debt since 2008 are endogenous, ie they resulted only to a limited extent from a policy choice. To a large extent public debt has grown and is still growing because the private sector needed to go through a process of deleveraging. This process would not take place in a more orderly manner if public finances were to

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14. See also Gligorov and Landesmann (2010).

15. See Cochrane (2005) and Abreu and Brunnermeier (2003).

Figure 5.10: Public and private debt in % of GDP



Source: National statistics and Eurostat.

Figure 5.10, continued

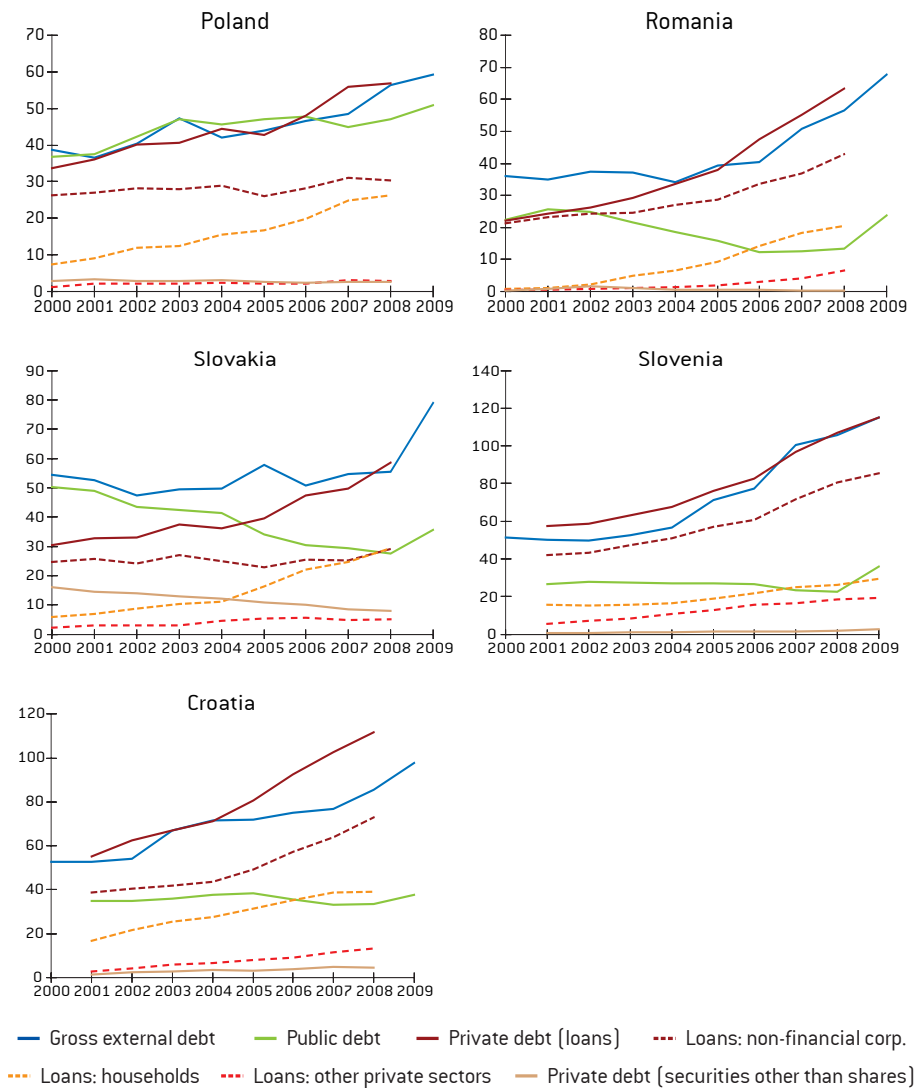
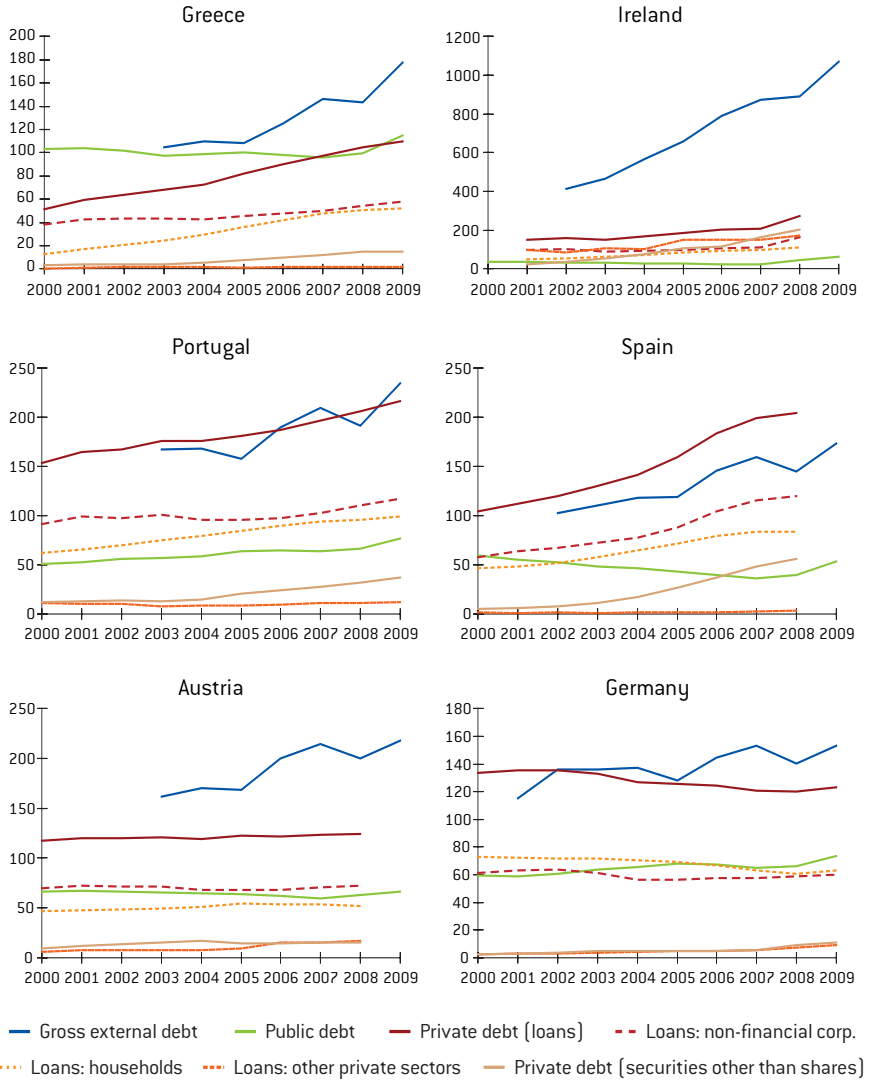




Figure 5.11: Public and private debt in % of GDP in some euro-area countries



Source: National statistics and Eurostat.

allow for a Fisher-type vicious circle of debt deflation<sup>16</sup>. Even with that, most of the increases in public deficit come from automatic stabilisers and not from additional fiscal stimuli<sup>17</sup>.

These considerations are also important in view of the worries that public borrowing will crowd out private borrowing. Crowding out of private loans happens if the demand for credit exceeds supply at the prevailing interest rate due to growing public financing needs. In most cases considered here, private demand for credit has plummeted. This crowds in public borrowing<sup>18</sup>. Once private credit demand recovers, public revenue will recover too, which will prove conducive to the decline of fiscal deficits.

The relationship between public and private debt can be seen as implying the existence of a significant fiscal risk. As a consequence, it is important to see how these two debts, public and private, are connected. A look at the data reveals that the growth of private debt has been particularly strong in countries that have had high current-account deficits and have often not experienced an increase in public debt. Thus, it is hard to argue that these countries have as a rule run twin deficits in the sense that fiscal deficits were responsible for the current-account deficits<sup>19</sup>. In any case, the opposite is the case now. To see this, the relationship between savings, investment and the current account is useful. If CA is the current account balance, Ps, Pi, Gs, Gi are private savings and investment and public savings and investment respectively, then:

$$CA = (Ps - Pi) + (Gs - Gi) \quad [3]$$

If the current-account deficit is narrowing or has turned into a surplus, then:

- either private savings should grow/private investments should fall,
- or government savings must improve compared to government investment,

or a combination of these two developments. But when the increase in the private savings/investment balance exceeds the improvement of the current-account balance, then the fiscal deficit will increase, which has happened in all CESEE countries.

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16. See Fisher (1933). This is similar to what Keynes called 'the paradox of thrift'.

17. See the recent discussion and evidence in CESifo (2010).

18. 'Crowding in' is not altogether different from 'crowding out' if it goes together with a decline of interest rates on public debt and an abrupt increase of interest rates on private debt.

19. On their relationship in the case of an open economy, see Mankiw and Elmendorf (1999).

Such a development can be the consequence of private-debt deleveraging, which was a likely phenomenon in most CESEE countries, and/or abrupt capital outflows, which has developed only in a few CESEE countries, such as Latvia.

Private-debt deleveraging is also pushing up fiscal deficits both through lower revenue and through increased expenditure. As a consequence, the key problem will be the financial stability of households and corporations. If credit-flows to households and corporations do not recover, growth will not be sustainable and thus public finances will not be sustainable either. There is not much evidence that public-debt deleveraging would help the consolidation of the private sector before financial flows recover, though foreign-debt developments may be helped if the decline in public expenditure or increase in taxes leads to improvements in the current account and makes the financing of foreign obligations easier.

For policy purposes, it is useful to distinguish three types of countries.

- Balkan and Baltic economies, though otherwise different, did increase their private debt even though their public debt, for the most part, either stagnated or declined or was close to zero. This private debt, however, just mirrored current-account deficits and thus overall foreign debt. This also supported the relatively benign inflation record due to stable import prices and often fixed exchange rates. The process of private-debt deleveraging is connected with the real exchange-rate adjustment, and that may take some time.
- In the case of central European economies, the debt levels (both public and private) are not necessarily all that high and the deleveraging process may not present the same challenges. It still remains the case that the resumption of financial flows is the key to both private and public debt management.
- Finally, in the case of countries further to the East (eg Ukraine), debt issues are connected with weaknesses in the banking sector, in the revenue base, and in declines in export revenue from either oil or metals. These countries present specific problems due to the fact that their financial and trade integration with the EU is much more limited.

## 5.6 Fiscal reforms

There is no doubt that the fiscal sector could be improved and that reforms to the public sector are needed. A detailed analysis of these issues is beyond the scope of this chapter. Only a few general comments are in order.

The fundamental observation is that the level of public debt depends on the preferences of the public about the type and level of intergenerational transfers<sup>20</sup>. These cannot be taken to be the same for every country. Thus, just looking at the level of public debt is not very informative about either its sustainability or its vulnerability. This is an issue that should be treated separately and has more to do with the choice of social set-up that is to be sustained than with either the model of growth or with fiscal sustainability.

When it comes to revenue, changes in the tax base are to be expected even if the overall tax rate does not change. In some cases, eg in central European countries, a noticeable decline in the openness of these economies (in terms of imports-to-GDP ratios) should not be expected and therefore that tax base should not be permanently lost. There is a need, however, to improve the coverage of the informal economy and to increase the contribution of direct taxes.

In the case of the Baltic and Balkan countries, tax reforms may have to be more sweeping due to probable slower growth of imports in the medium run. In the case of countries that rely on export taxes, everything will depend on the recovery in the prices of natural resources and metals.

Crucial reforms of public expenditures will have to be undertaken. The problems are well known and have primarily to do with intergenerational justice. Here, as in other cases for reforms, the issue is not so much sustainability but the principles on which the reforms should be based. Indeed, some countries have low public debt-to-GDP ratios and that may be due to the collapse of social and public institutions rather than the reflection of the quality of public finances. In some cases, an increase of public debt may be needed from the point of view of intergenerational and even intra-generational justice, and thus the ability to run fiscal deficits provided by the process of growth catch-up may be supportive of that.

Additionally, the institutional framework of fiscal policy needs to be strengthened. The Budgetary Discipline Index compiled by Darvas and Kostyleva (2010), which translates qualitative information about the three main stages of budgeting (preparation, legislation, implementation) into a quantitative index, shows that CESEE countries in general fall behind EU15. Their econometric results confirm that better budgetary institutions produced better fiscal outcomes.

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20. One interesting recent study is by Birkeland and Prescott (2007).

## 5.7 Summary

The argument can be summarised as follows:

- Fiscal sustainability in the usual sense, ie that the public debt-to-GDP ratio is increasing without limit, was not the problem that CESEE countries were facing prior to the crisis. This will remain the case if the output loss in response to the crisis was purely cyclical, they can manage to grow at unchanged potential growth rates and if they do not face financial risks in excess of those in benchmark EU or euro-area countries;
- Ability to tax is not likely to be significantly affected, while whether the recent increase in expenditure/GDP ratio will become a structural problem depends on GDP developments;
- In cases where there is a risk that sustainability will be under threat, prudent policies based on conservative growth and interest-rate assumptions are justified;
- The key to public-debt consolidation is in some respects the consolidation of private debt (with partial exceptions especially Hungary and Croatia).

Therefore, the origins of the problems experienced in the CESEE countries were mostly in the banking and the corporate sectors, not in the public sector. But problems in the private economy were transmitted to the public sector indirectly through a reduction in the level of output, and directly in the form of increased off balance-sheet public obligations and, especially, of increased deficits as a result of the deleveraging process in the private economy. Twelve of the seventeen CESEE countries embarked upon significant budget consolidation in 2009 by freezing or even cutting expenditure, yet expenditure/GDP ratios have expanded everywhere.

Turning to the policy implications, there is a risk of exaggerating the urgency of fiscal consolidation and of adding public deleveraging to the ongoing private deleveraging. This could have significant negative consequences for economic recovery and may not lead to improvements in either the public- or the private-debt positions. Indeed, if growth remains depressed owing not only to low private but also public demand, these countries may face problems similar to those that Latin American countries went through in the 1990s. Then, interest rates shot up and growth remained depressed for years as governments ran high primary surpluses in order to repay their accumulated debt obligations.

But there is also a risk of basing budgetary strategy on overly optimistic assumptions and of endangering the sustainability of public finances.

In the CESEE countries public debt is for the most part expected to increase, but debt-to-GDP ratios will still be lower than in most advanced EU and euro countries (see European Commission, 2009c). Consolidation in accordance with the Stability and Growth Pact rules should be sufficient to stabilise them and in some cases to put them on a declining path.

The implication for the EU is that it should provide a framework that helps CESEE countries to manage their budgetary challenges. Implementation of the Stability and Growth Pact should take into account the specific macro-economic conditions of the countries in the region and, where necessary, conditional lending should balance the need for fiscal consolidation and the requirements of private-sector deleveraging. Longer term, the EU should also support the adoption of national budgetary frameworks that promote sustainability and are conducive to counter-cyclical policies.

## 6. Conclusions

Over the last two decades, central, eastern and south-eastern European (CESEE) countries have experimented with a unique model of growth and catching-up through integration into the EU. Not all CESEE countries are at the same stage in terms of their integration with the EU: some are full members of the euro area whereas others are not yet members of the EU. But integration has been a driving force for all and they have in many respects pursued a common growth model.

This model combines institutional anchoring to the EU, integration of product markets through trade in goods and services, unfettered capital mobility including through large-scale foreign direct-investment flows, and eventually labour mobility.

At the time of its emergence, this model made considerable sense. Institutional anchoring was a way of reducing trial and error in the process of building up economic institutions from scratch; trade provided markets for growth and a framework for revealing comparative advantage; capital flows from rich to poorer countries were a textbook response to the scarcity of modern equipment and infrastructure; FDI substituted the lack of management experience and helped address technological backwardness; finally, labour mobility helped to limit the social cost of transition.

However although these are non-original features, no other region in the world combined all of them and to the same degree. Though integration through trade and FDI is taking place in Asia, the magnitude of capital inflows is much less, the institutional anchoring is largely absent, financial integration is less intense and labour flows remain much more restricted. Furthermore, in the last decade, Europe's growth model based on integration blossomed while Asia and Latin America became more cautious as regards capital inflows. Whereas in most of the emerging world the lesson from the Asian crisis of 1997-98 was that nations need to avoid large current-account deficits and even need to run surpluses in order to accumulate foreign-exchange reserves (for the sake of combating volatile financial flows), Europe experienced a dramatic increase in 'downhill' capital flows from the old to the new member states.

The crisis was undoubtedly a shock to this integration model. As documented in this report, the region was hit much harder than other parts of the emerging world, and is recovering more slowly. Crises are moments when policymakers and citizens learn what works and what does not. In retrospect crises are often looked on as major turning points. Beyond Asia, the Latin-American debt crisis of the 1980s opened the way to the liberalisation of the 1990s, and the Scandinavian crises of the early 1990s led to a major reorientation of the growth models. So the question is, can - and should - the integration growth model survive or are major changes needed? And if so, what changes?

In this report we have not considered the CESEE countries in isolation but have used comparisons extensively, both between European countries and with countries with a similar level of development on other continents.

We have found that the development patterns of CESEE countries indeed shared some common characteristics: most have integrated into the EU trade and investment web; most relied extensively in the last decade on foreign savings; most saw the take-over of their banking sector by western European banks; most went through private-credit booms in the 2000s and experienced difficulties in implementing proper financial supervision; and in most cases, budgetary policy was not a major factor in instability.

We have also found significant differences within the region. First and foremost, CESEE countries embraced the same model, but to a different degree. Imbalances, especially external deficits and the credit boom, were much more serious in the Baltic and Balkan countries (which we call the BB and WB groups) than in central Europe (the CE group). The same applies to the composition of capital flows: central Europe relied primarily on FDI and in some cases portfolio investment, while bank credit predominated for the BB/WB groups. Going one step further, the allocation of foreign direct investment was markedly different for the two groups, with a predominance of manufacturing, infrastructure and trade in the CE group and a predominance of real estate and finance in the BB/WB group. The BB/WB countries, after a disastrous early period of 'deindustrialisation' have not been able to re-build a tradable sector of sufficient size and quality to avoid serious deterioration in current-account positions. These developments became unsustainable even before the crisis, and have led to a debt overhang, which seriously undermines economic growth prospects.

Thus, under the umbrella of the same model, quite different developments took place, some of which portended greater instability than others. We do not offer definitive



answers to why these differences arose. However, some important factors can be highlighted. Initial conditions certainly played a role: it is not by accident that the countries most affected by the credit boom-and-bust in the late 2000s were the poorest. Differences in the policies pursued during the transition phases (such as privatisation, policies towards FDI) as well as structural policies, for example in the fields of competition and infrastructure investment, also contributed to shaping the allocation of capital. We also emphasise the role of exchange-rate regimes: on average, countries with a floating exchange-rate regime – primarily four central European countries of the CE group – were able to avoid excessive real appreciation before the crisis and performed better in the crisis than those with a fixed exchange-rate regime. We have found a relationship between vulnerabilities and the pre-crisis speed of credit growth, and also between the pre-crisis speed of credit growth and the drop in output during the crisis. This suggests that the quality of macroeconomic policies aiming at low inflation, of regulatory frameworks and of bank supervisory policies played a part.

An important issue is what role the EU framework has played. As mentioned, we consider that EU integration has been a major success and a factor of paramount importance in the shaping of the economic catch up of the CESEE region. The single market, EU transfers and the anchoring of policies to EU norms all played major roles in the growth process before the crisis. The crisis-management initiatives taken in 2008-09, especially the Vienna initiative and financial assistance, contributed to stabilising the situation.

However not everything is uniformly positive. Quite apart from the failure to provide liquidity through swap agreements at the height of the crisis – a choice that might well influence national governments' own decisions in the years ahead - there were a number of channels through which the EU failed to exercise a sufficiently stabilising influence in the run-up to the crisis.

Broadly, it must be recognised that the benefits of EU integration for countries that are catching up are not and cannot be unqualified, but are conditional on the quality of national policies and the EU framework itself. So the responsibility of national policymakers in making the best of the EU must be emphasised. By the same token, the EU's responsibility is to incentivise policymaking that is consistent with integration, and to help focus policymakers' attention on the main priorities.

From this point of view EU integration has been problematic in five respects for CESEE countries:

- The Lisbon strategy did not provide to new EU members a strategic framework for growth. Quite apart from the debate on its effectiveness it was not designed for catching-up economies and was in some respects ill-suited to their needs. Targets such as the share of R&D spending in GDP were hardly meaningful. Powerful instruments the EU had at its disposal to foster economic development, such as the structural funds, were not made part of a comprehensive growth strategy.
- The focus of macroeconomic surveillance on budgetary variables conveyed the wrong impression that, providing the fiscal house was in order, there was no macroeconomic imbalance to be worried about. Although the Commission warned about large-scale external imbalances both inside and outside the euro area, the overall policy climate was one of benign neglect (not least due to the logic of the EU single market), and thus action was not taken to correct misalignments before they got out of hand.
- There was a much too benign view of the benefits of capital-market integration. The EU persisted with the belief that implementing the 'four freedoms' could only be beneficial, and it was far from being alone in holding such a view. The microeconomic costs of a misallocation of capital, and the macroeconomic costs of massive capital inflows and/or borrowing in foreign currencies, were seriously underestimated.
- There was what can be termed a fatal attraction to monetary union as four of the ten CESEE EU member state governments thought that the continuation of the hard pegs introduced in the 1990s, could be a short cut to the holy grail of early euro-area membership. Although the EU's official policy has been to discourage euro-isation, and not to encourage early application for euro-area membership (reflected in the denial of Bulgaria's ambition to join the ERM2), it has not discouraged the continuation of the hard pegs within the ERM2 for the three Baltic countries. Not enough attention was given to the appropriateness of exchange-rate strategies from the point of view of national economic development.
- Finally, the crisis has shown basic weaknesses in EU-level arrangements for short-run crisis management. These arrangements have now come under close scrutiny for the euro area and EU as a whole, but the issue is also very relevant for the economies that are closely integrated with the EU while not yet being members. At the height of the crisis there was for a short period evidence of negative spillovers from *ad-hoc* stabilisation attempts within the EU or euro area. More importantly, mechanisms to support fiscally and financially sound countries in

the face of sudden capital outflows and the drying up of euro liquidity, proved to be insufficient.

The question now is how to reform the integration model of growth. Our view is that in spite of its shortcomings it should be preserved, because it still holds the promise of development. But we also think that shortcomings need to be addressed and that instead of assuming that the whole of the EU framework is essentially and instantaneously suited to the needs of countries at all levels of development, there should be an effort to determine how it can best serve the goal of economic catch up and stability through mobilising existing instruments. Such instruments include structural funds, improving coordination arrangements (for example in the field of supervision), exercising surveillance (notably over fiscal and financial policies) and, in the case of monetary union, making use of transition periods. This requires a more economic and less legalistic approach to integration, and innovation in the use of existing provisions rather than a procedure-driven approach. Procedures cannot dictate strategies.

Turning to actual policies, a first priority is to improve supply-side conditions. Strong and competitive traded-goods sectors contribute to sustainable external balances, which came to the fore in the crisis as the focal point for overall macro-stability. This applies to euro-area countries as well as non-euro area new EU member states, candidate and prospective candidate countries. This suggests that EU policy instruments such as the structural funds and European Investment Bank financing should be used to buttress productivity and sustainable growth. The same applies to regulatory frameworks. Supply-side adjustment also requires appropriate real exchange rates with a strong drive towards better fulfilment of OCA criteria (in advance of, but also after, EMU entry).

A second priority is to help create conditions for successful financial integration. In the short run the deleveraging under way in a large part of the CESEE region limits some risks at the cost of slowing down economic recovery. Some banks may become 'zombies' and credit-rationing may hinder economic recovery in handful of CESEE countries. In the short run, appropriate monetary and supervisory policies must accompany the process of deleveraging and support the debt-restructuring process in the banking and the private sectors. But capital inflows might resume soon, especially into the less indebted CE countries. The focus should be on creating a robust framework for supervision, including through improving the division of responsibility between home and host country, and to agree on ways to limit excessive credit booms and excessive exposure to exchange-rate risk. On the crisis-management front, a range of tools can be used to ease the access-to-liquidity problem.

The third priority is to revise the approach to exchange-rate strategies. As initial conditions differ, there cannot be a one-size-fits-all strategy but there is certainly a case for a dual-track approach. Countries in a floating exchange-rate regime with credible policy frameworks should not hurry to peg to the euro. However, this strategy may not work well in countries that are already pegged to the euro. For these countries, neither having the euro nor an independent monetary policy is often the worst of both worlds. Therefore, the EU should offer to all potential applicants better terms for euro membership, on the condition that (a) their current exchange rate is not overvalued, (b) they have put in place supervisory arrangements that are conducive to financial stability and (c) they are flexible enough to thrive within the euro area. Assessment of the sustainability of current-account positions, which is also required by the Treaty, should be strongly emphasised. Provided these conditions are met, a more economically sensible interpretation of the inflation criterion should be adopted and, by the same token, surveillance within the euro area should be strengthened, as already envisaged by the Van Rompuy group (see Task Force, 2010). When this is not the case, the EU should initiate discussions with domestic policymakers on altering the exchange-rate regime.

A fourth priority is fiscal policy. The reformulation of fiscal rules is necessary to ensure that monetary union is underpinned by an unequivocal commitment to fiscal discipline. But targets should take account of differences in growth trajectories, and should preserve incentives and possibilities for counter cyclical fiscal policy. As the crisis has shown, fiscal vulnerability often arises from implicit liabilities towards the financial sector and for this reason sustainability assessments should also consider private-sector fragility. These issues do not apply only to EU member states, but also to candidate and prospective candidate countries. Therefore the EU should find ways to support sound fiscal and financial policies in the new member states and the candidate countries. To this end, a powerful tool could be the strengthening of the EU's current macro-finance assistance arrangements for this group of economies.

# Appendix: country codes

Two-digit country codes used in Figures 1.5 and 1.9:

## **CE5**

CZ	Czech Republic
HU	Hungary
PL	Poland
SK	Slovakia
SI	Slovenia

## **BB5**

BG	Bulgaria
EE	Estonia
LV	Latvia
LT	Lithuania
RO	Romania

## **WB6**

AL	Albania
BA	Bosnia and Herzegovina
HR	Croatia
MK	Former Yugoslav Republic of Macedonia
ME	Montenegro
SQ	Serbia

## **CIS1**

UA	Ukraine
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## **Asia-6**

ID	Indonesia
KR	Korea
MY	Malaysia

## WHITHER GROWTH IN CENTRAL AND EASTERN EUROPE?

PH Philippines  
SG Singapore  
TW Taiwan Province of China

### Latam-8

AR Argentina  
BR Brazil  
CL Chile  
CO Colombia  
EC Ecuador  
MX Mexico  
PE Peru  
UY Uruguay

### EU15

AT Austria  
BE Belgium  
DK Denmark  
FI Finland  
FR France  
DE Germany  
GR Greece  
IE Ireland  
IT Italy  
LU Luxembourg  
NL Netherlands  
PT Portugal  
ES Spain  
SE Sweden  
GB United Kingdom

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Bruegel issues a range of publications. The Bruegel Blueprint Series provides comprehensive analysis and policy recommendations on central questions of the moment. Bruegel Policy Briefs provide concise, topical analysis targeted at an audience of executives and policy decision-makers, with an emphasis on concrete policy orientation. Bruegel Policy Contributions are responses to requests by policymakers or public bodies, including testimonies at hearings or responses to public consultation. Bruegel and its researchers also publish working papers, op-eds, collaborative papers with other organisations, and essays.

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The Vienna Institute for International Economic Studies (wiiw) is an independent economic research institute with more than 35 years' experience of analysing economic developments in central, eastern and south eastern Europe. It is one of the principal centres of such research in Europe. Over the years, the institute has adjusted and broadened its expertise, from transformation to the process of integration with the European Union, developments in wider Europe and its neighbourhood, and international economic developments more generally. The institute has developed expertise on Europe-wide topics related to macroeconomics, industrial economics, trade and foreign direct investment, regional developments and social cohesion, labour markets and migration. The Vienna Institute has been the lead participant or coordinator for a wide range of European research projects.

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