The World Bank

EU10
Regular Economic Report

Main Report:
Bottoming out?

May 2009

Focus Notes:

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Invitation Paper by Michael Landesmann
Trade Relations and the Economic Crisis

Increased Country Differentiation: Evidence from High Frequency Spreads Data
Cross-border Bank Funding
Household Indebtedness
Fiscal Impact and Migration

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The EU10 refers to Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic and Slovenia. The EU10+1 includes Croatia.

Summary

The EU10 countries are in recession. Economic activity is projected to decline by 3 percent this year, and stagnate around zero percent next year, and the unemployment rate is set to increase from 6.5 percent in 2008 to 10.4 percent in 2010, or from about 3 million to 5 million people. The region has been hit by two shocks:

- the recession in high-income countries, which has hurt external demand for EU10 exports; and
- the global financial crisis, which has reduced capital inflows and thereby lowered domestic demand.

These two shocks have led to a sharp downturn and steep rise in unemployment because of the region's deep trade, capital and labor market integration with the EU and the world economy.

While the crisis has hit all countries of the region, its impact differs greatly across the EU10 countries. The variation is mostly related to two factors:

- the magnitude of macroeconomic imbalances at the beginning of the crisis, where countries with the largest imbalances are experiencing now the largest contractions; and
- the degree of market integration through trade, capital and labor.

First, the contraction in global spending on capital goods and durables has hurt manufacturing exports, such as automobile and electronics. Industrial production has contracted by over 20 percent over the last year across the EU10 region. The depreciation of domestic currencies between 5 and 30 percent since September 2008 in the Czech Republic, Hungary, Poland, and Romania could not prevent the resulting decline in exports. The fall in export demand affects EU10 countries through trade linkages, which in turn depend on trade openness, the performance of export markets, and the composition of export goods. For example, (i) exports as percent of GDP exceeded 70 percent in 2008 in the Czech Republic, Hungary, the Slovak Republic and Estonia; (ii) the trade-weighted GDP decline in export markets in 2009 is projected to vary from -6.1 percent in Latvia to only -3.7 percent in Bulgaria; and (iii) exports in Hungary, the Czech Republic and the Slovak Republic (motor vehicles and parts), and in Estonia, Poland and Slovenia (engineering goods) are concentrated in sectors severely affect by the global manufacturing slump.

Second, after years of high profitability, the soundness of the financial sector is threatened by the economic recession. Gross capital inflows declined by two-thirds from the third quarter 2008 to the first quarter in 2009 in emerging EU10 countries. Financial markets have re-priced country-specific risks. There are concerns about the ability of some countries to ensure a complete roll over of external short-term borrowing and to attract sufficient funding for current account deficits. The reliance on cross-border funding has exposed banks to potential pressures on the balance sheets of their parent banks in advanced markets. Experience from previous capital account crises shows that capital flows do not recover to pre-crisis levels for years. This is likely to slow the upturn in the EU10 region which depends on capital inflows to support investment.

Third, the downward revision in the economic outlook is expected to reduce employment by over 1.5 million in 2009 and 2010. The job losses of EU10 migrants in the EU15 countries add to labor market pressures in home countries through return migration. Higher joblessness could translate into lower household incomes, remittances and consumer demand with negative feedback loops to the financial sector, including rising non-performing loans. Even if growth rebounds by 2010, it could take years to reabsorb excess labor pools. Workers in countries with fixed currency regimes face a larger risk of lay-offs, as job losses are likely to increase sharply with the stark decline in output, especially in the Baltic countries. In contrast, currency depreciations have lowered the purchasing power of households' incomes in countries with floating exchange rates vis-à-vis the euro or dollar, and increased debt service burdens for households with foreign exchange debt.

The economic outlook remains uncertain. Some countries may experience a stabilization process that is more protracted than anticipated. Other countries that have weathered the crisis better due to sound economic fundamentals may still be at risk from a worsening external environment.

Going from slump to stabilization in the EU10 countries hinges critically on the success of policies to maintain strong trade, capital, and labor linkages. This requires policy coordination of the EU10 countries with other EU countries and advanced economies along three dimensions (fiscal, financial and social):

- *Fiscal*: Since the EU10 countries have in general little room for fiscal stimulus spending, embedding the ongoing widening of fiscal deficits within a framework of medium-term fiscal consolidation will reassure markets. In addition, maintaining the trade linkages to high-income countries that do carry out such stimulus programs will help. Trade integration channeled prosperity from global markets to the region during the last decade, and these linkages can now channel some of the benefits of fiscal stimulus spending.

- *Financial*: Economic stability in the region, as indeed in the rest of the world, depends foremost on restoring financial confidence. Greater international cooperation is essential for keeping capital linkages open between the EU10 and EU15 countries. This requires close coordination among parent banks active in the same country. This is easier in the Baltic countries, where Sweden accounts for the bulk of foreign bank ownership, than for example in Hungary, where foreign banks from different countries are active. Some EU10 countries have received, or are preparing to receive, large-scale official support from bilateral and multilateral sources to stabilize their financial markets. More support might be needed.

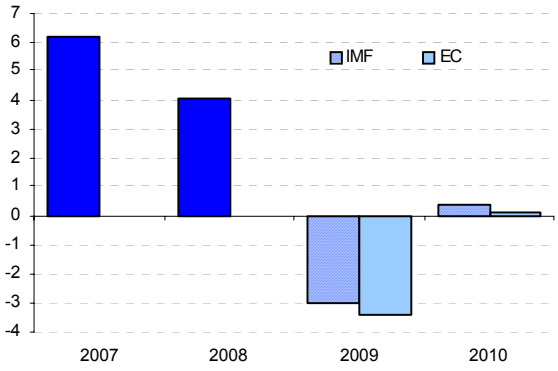
- *Social*: Restructuring public finances can help to mitigate the social cost of the crisis through social assistance programs and protection of priority spending that improves prospects for jobs and growth.

EU10 May 2009
Main Report

Severe Slump

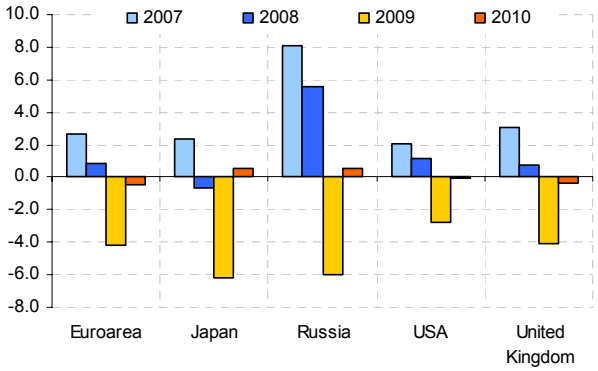
The deepest global recession since World War II has clouded the economic outlook in the EU10 region. The EU10 economies grew only modestly in the fourth quarter of 2008 by 1 percent, and are likely to have contracted in the first quarter of 2009. EU10 countries are projected to contract by around 3 percent in 2009, and to reach zero growth in 2010, down from growth rates of 4.1 percent in 2008 and 6.2 percent in 2007. The collapse in export demand and the global deleveraging have resulted in a sharp economic downturn. Deep trade and financial integration with the rest of the world, and especially the euro area, makes the region highly vulnerable to the reduction in external financing and contraction in manufacturing exports.

Figure 1. GDP growth in EU10, (% change, yoy)



Source: IMF, World Economic Outlook, EC Spring Forecast May 2009, World Bank Staff calculations.

Figure 2. GDP growth in the major economies, (% change, yoy)



Source: IMF, World Economic Outlook, World Bank Staff calculations.

The economic crisis extends to other regions in the world, although the EU10 region, along with the Commonwealth of Independent States, has seen the largest growth reversal from 2008 to 2009. Growth contracted 6.1 percent in the U.S. in the first quarter of 2009, and 6.2 percent in the euro area and 11.7 percent in Japan in the fourth quarter 2008. Leading indicators point to an ongoing recession in the high income countries into July 2009, suggesting a sustained slump in global demand over the coming months. OECD's April 2009 composite leading indicator of industrial production shows no turn-around out through mid-2009 for the U.S., the Euro area, and Japan. The collapse in export demand, in addition to the sharp adjustments in financial and housing markets in some economies, means that the EU and the euro area are expected to contract even more than the US. With the exception of Cyprus, the European Commission projects all 27 EU member states to contract this year.

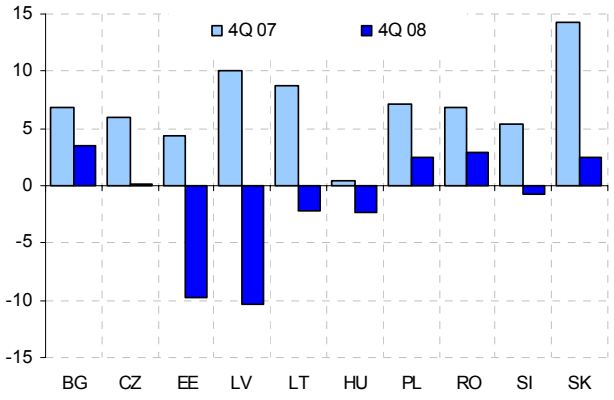
Table 1. Recent macroeconomic forecasts, in percent (as % of GDP in case of current account and fiscal balances)

		Real GDP growth			Inflation			CA Balance			Fiscal balance		
		2008	2009	2010	2008	2009	2010	2008	2009	2010	2008	2009	2010
BG	WEO	6.0	-2.0	-1.0	12.0	3.7	1.3	-24.4	-12.3	-3.6	na	na	na
	EC	6.0	-1.6	-0.1	12.0	3.9	3.6	-24.8	-18.8	-17.2	1.5	-0.5	-0.3
CZ	WEO	3.2	-3.5	0.1	6.3	1.0	1.6	-3.1	-2.7	-3.0	-1.5	-4.1	-4.2
	EC	3.2	-2.7	0.3	6.3	1.1	1.6	-3.1	-3.2	-3.3	-1.5	-4.3	-4.9
EE	WEO	-3.6	-10.0	-1.0	10.4	0.8	-1.3	-9.2	-6.5	-5.4	na	na	na
	EC	-3.6	-10.3	-0.8	10.6	0.6	0.5	-9.1	-1.1	-3.1	-3.0	-3.0	-3.9
LV	WEO	-4.6	-12.0	-2.0	15.3	3.3	-3.5	-13.2	-6.7	-5.5	na	na	na
	EC	-4.6	-13.1	-3.2	15.3	4.6	-0.7	-13.6	-1.5	-1.9	-4.0	-11.1	-13.6
LT	WEO	3.0	-10.0	-3.0	11.1	5.1	0.6	-11.6	-4.0	-5.3	na	na	na
	EC	3.0	-11.0	-4.7	11.1	3.6	-0.4	-12.2	-1.9	0.7	-3.2	-5.4	-8.0
HU	WEO	0.6	-3.3	-0.4	6.1	3.8	2.8	-7.8	-3.9	-3.4	na	na	na
	EC	0.5	-6.3	-0.3	6.0	4.4	4.1	-8.4	-5.0	-4.8	-3.4	-3.4	-3.9
PL	WEO	4.8	-0.7	1.3	4.2	2.1	2.6	-5.5	-4.5	-3.9	na	na	na
	EC	4.8	-1.4	0.8	4.2	2.6	1.9	-5.3	-4.7	-3.7	-3.9	-6.6	-7.3
SK	WEO	6.4	-2.1	1.9	3.9	1.7	2.3	-6.3	-5.7	-5.0	-2.2	-2.9	-2.9
	EC	6.4	-2.6	0.7	3.9	2.0	2.4	-6.8	-7.5	-7.1	-2.2	-4.7	-5.4
SI	WEO	3.5	-2.7	1.4	5.7	0.5	1.5	-5.9	-4.0	-5.0	-0.3	-4.2	-3.7
	EC	3.5	-3.4	0.7	5.5	0.7	2.0	-6.1	-4.6	-4.4	-0.9	-5.5	-6.5
RO	WEO	7.1	-4.1	0.0	7.8	5.9	3.9	-12.6	-7.5	-6.5	na	na	na
	EC	7.1	-4.0	0.0	7.9	5.8	3.5	-12.3	-7.4	-6.1	-5.4	-5.1	-5.6

Sources: EC Spring Forecasts, May 2009, IMF World Economic Outlook April 2009.

The deterioration in economic growth in the EU10 countries was more sudden and sharper than expected at the beginning of the economic crisis. While year-on-year quarterly growth was still positive in all EU10 countries in the first quarter of 2008, growth had turned negative in Latvia, Estonia, Hungary, Lithuania and Slovenia by the last quarter of 2008. Growth rates deteriorated in all countries in the fourth quarter in 2008 compared to 2007, and the drop in growth rates reached double-digits in Latvia, Estonia, Lithuania and Slovak Republic – although from a very high base. Between October 2008 and April 2009, the EC and the IMF revised downwards the EU10 growth estimates by about 8 percentage points for 2009, and about 4 percentage points lower for 2010.

Figure 3. Real GDP growth in EU10 in 4Q 2007 and 4Q 2008, (% change, yoy, nsa)



Source: IMF, World Economic Outlook, World Bank Staff calculations.

Table 2. Recent macroeconomic forecasts, in percent (as % of GDP in case of current account and fiscal balances)

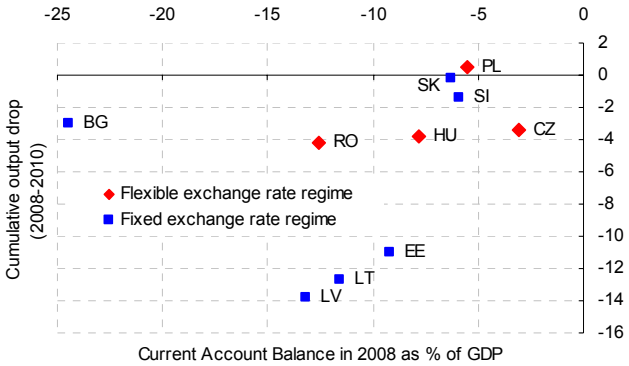
		WEO October 2008	WEO April 2009	Difference between April 2009 and Oct. 2008	EC October 2008	EC May 2009	Difference between May 2009 and Oct. 2008
BG	2009	4.3	-2.0	-6.3	4.5	-1.6	-6.1
	2010	5.5	-1.0	-6.5	4.7	-0.1	-4.8
CZ	2009	3.4	-3.5	-6.9	3.6	-2.7	-6.3
	2010	4.2	0.1	-4.1	3.9	0.3	-3.6
EE	2009	0.5	-10.0	-10.5	-1.2	-10.3	-9.1
	2010	5.4	-1.0	-6.4	2.0	-0.8	-2.8
LV	2009	-2.2	-12.0	-9.8	-2.7	-13.1	-10.4
	2010	1.1	-2.0	-3.2	1.0	-3.2	-4.2
LT	2009	0.7	-10.0	-10.7	0.0	-11.0	-11.0
	2010	2.6	-3.0	-5.6	-1.1	-4.7	-3.6
HU	2009	2.3	-3.3	-5.6	0.7	-6.3	-7.0
	2010	3.0	-0.4	-3.4	1.8	-0.3	-2.1
PL	2009	3.8	-0.7	-4.5	3.8	-1.4	-5.2
	2010	4.8	1.3	-3.6	4.2	0.8	-3.4
SK	2009	5.6	-2.1	-7.7	4.9	-2.6	-7.5
	2010	5.9	1.9	-3.9	5.5	0.7	-4.8
SI	2009	3.7	-2.7	-6.4	2.9	-3.4	-6.3
	2010	3.8	1.4	-2.4	3.7	0.7	-3.0
RO	2009	4.8	-4.1	-8.9	4.7	-4.0	-8.7
	2010	5.3	0.0	-5.3	5.0	0.0	-5.0

Sources: EC Spring Forecasts, May 2009, IMF World Economic Outlook April 2009.

Economic activity is expected to contract in 2009 in all EU 10 countries, and to recover only modestly, and only in some countries, in 2010. The Baltic countries are expected to suffer the most severe contraction. In the first quarter of 2009, the year-on-year reduction in GDP ranged from 18 percent in Latvia and 16 percent in Estonia, to 3.5 percent in Bulgaria and 3.4 in the Czech Republic.

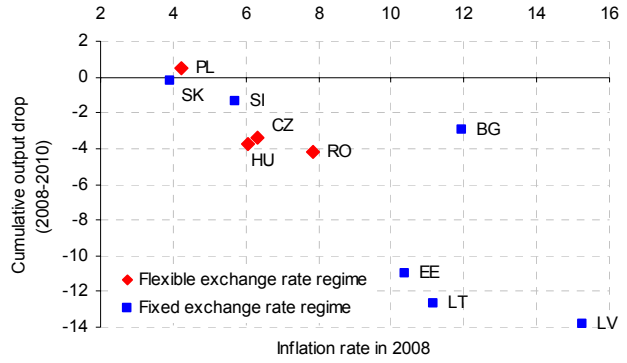
The expected contraction in output is linked to the magnitude of macroeconomic imbalances at the beginning of the crisis. Countries with the largest imbalances, as reflected in large current account deficits, high inflation, and large bank-related capital inflows, are set to see the largest downturns in economic activity.

Figure 4. Cumulative output drop in 2009-10 vs. current account balance in 2008



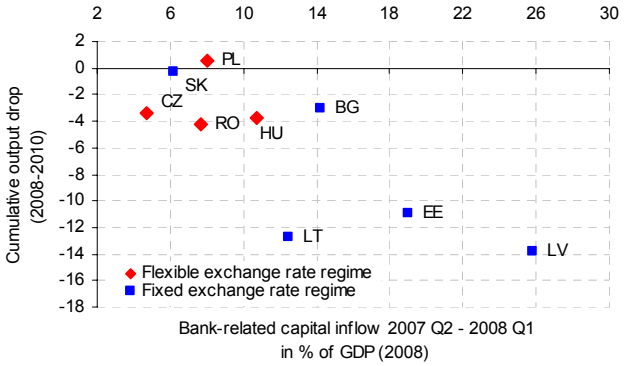
Source: IMF World Economic Outlook April 2009, Central Banks, World Bank Staff calculations.

Figure 5. Cumulative output drop in 2009-10 vs. inflation rate in 2008



Source: IMF World Economic Outlook April 2009, Central Banks, World Bank Staff calculations.

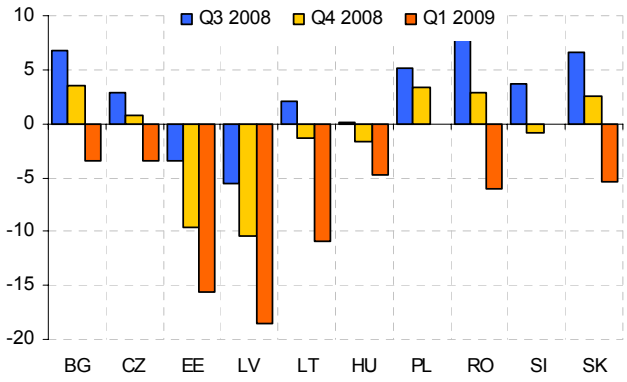
Figure 6. Cumulative output drop in 2009-10 vs. bank related capital inflow in 2Q 07-1Q 08



Source: IMF World Economic Outlook April 2009, Central Banks, World Bank Staff calculations.

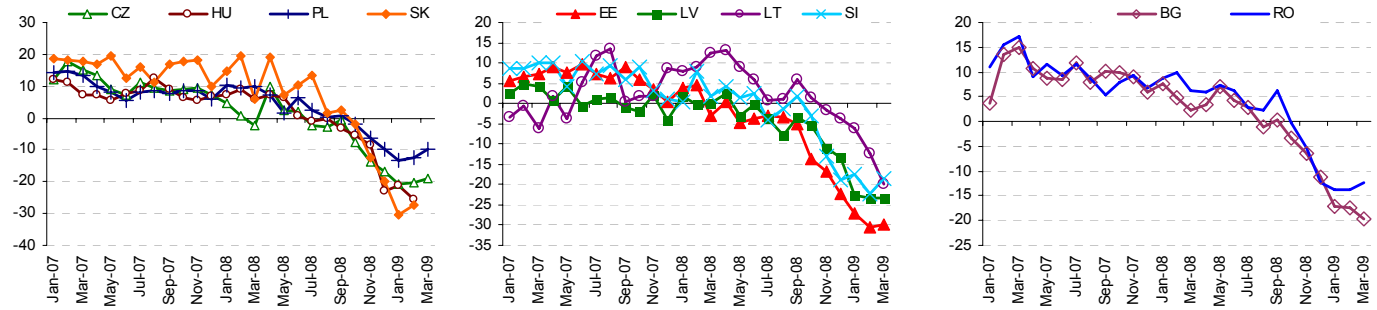
In view of the global economic uncertainty, global spending on capital goods and durables has decline sharply, curtailing foreign direct investment and hurt manufacturing in the EU10 region (see the 'In Focus" Note on *Trade Relations and the Economic Crisis*). Manufacturing plummeted in the fourth quarter of 2008 and the first months of 2009, as sales of investment goods and consumer durables collapsed. In early 2009, industrial production contracted year-on-year between 20 to 30 percent in Estonia, Latvia, Hungary, the Slovak Republic and the Czech Republic, a shock comparable only to the sharp slump of the early 1990s. Stocks of inventory, which had increased at the onset of the crisis, are now being slashed. The export-oriented manufacturing sector, in particular machinery, automobile, transport and electric equipment, but also the labor intensive industries, such as textiles and clothing, have been affected the most. Those segments of the automobile sector that produce for the German market, and benefit from special incentives there, will be an exception – at least until mid-2009, when these incentives are set to expire.

Figure 7. Real GDP growth in EU10 in 3Q 2008 to 1Q 2009, (% change, yoy, sa)



Source: Eurostat, World Bank Staff calculations. Q1 2009 data is preliminary.

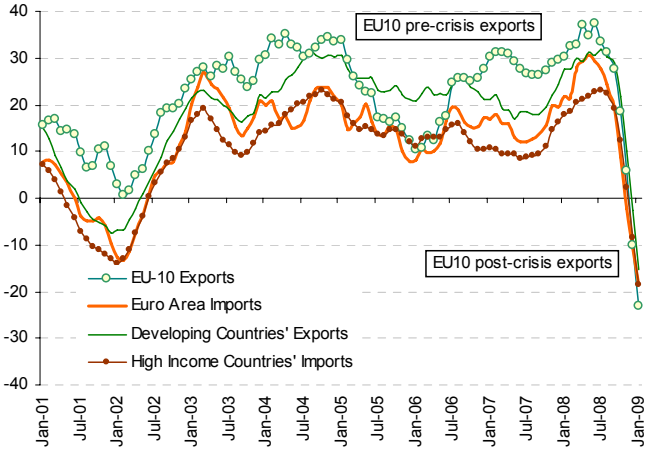
Figure 8. Volume Index of Industrial Production (% change, yoy, wda)



Sources: Statistical Offices, Eurostat, World Bank Staff calculations.

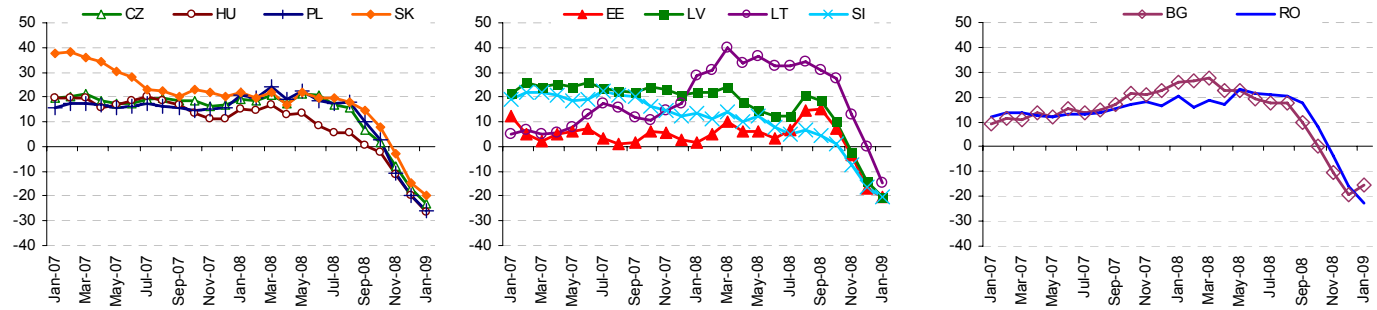
Exports collapsed in line-with the fall-off in advanced countries' demand since the onset of the global crisis. World trade is now in virtual free-fall, declining 29 percent year-on-year in February 2009, compared with an average growth of 10 percent over the last two decades. Similarly, the pace of decline in EU10 exports has been sharp. The value of exports fell 37 percent year-on-year in February 2009, following a 32 percent contraction in January. This compares to a peak growth of 46 percent in April 2008. The depreciation of currencies between 5 to 30 percent in countries with floating exchange rates since September 2008 has not noticeably mitigated the decline in exports resulting from weak global demand. In addition, in countries like the Czech Republic and Poland, some exporters hedged against currency appreciation, and will benefit from depreciation only with a lag.

Figure 9. EU and HIC Imports and EU-10 and LMIC Exports (3mma, %change, , yoy, sa)



Source: Datastream Thomson and World Bank.

Figure 10. EU10 exports (3mma, % change, yoy)

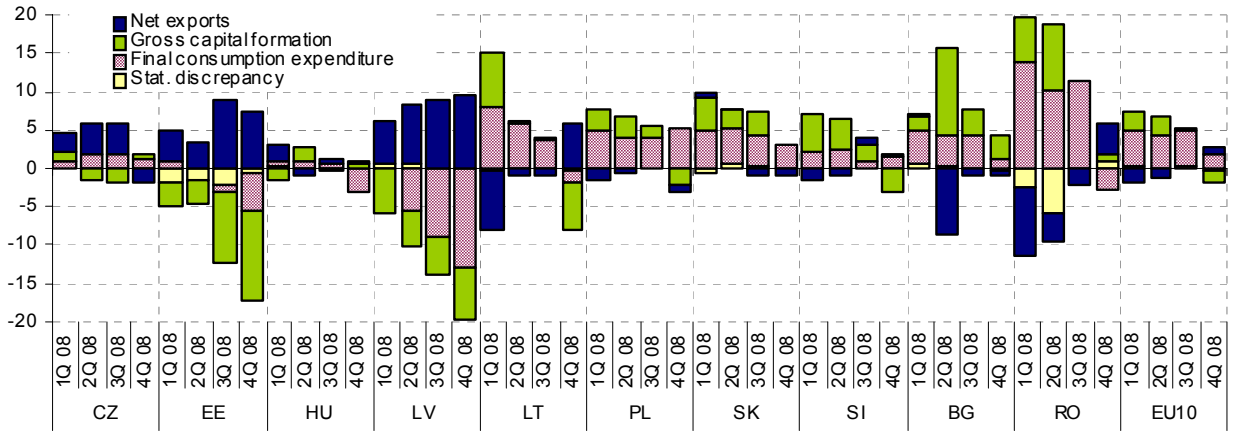


Source: Eurostat, World Bank Staff calculations.

Domestic demand is also weakening. The credit crunch has hurt companies, which have cut back investment. The collapse in equity markets and the weakening in housing markets have reduced household wealth. Labor markets are worsening, reducing household income. Consumption growth was negative in the last quarter of 2008 in Estonia, Hungary, Latvia

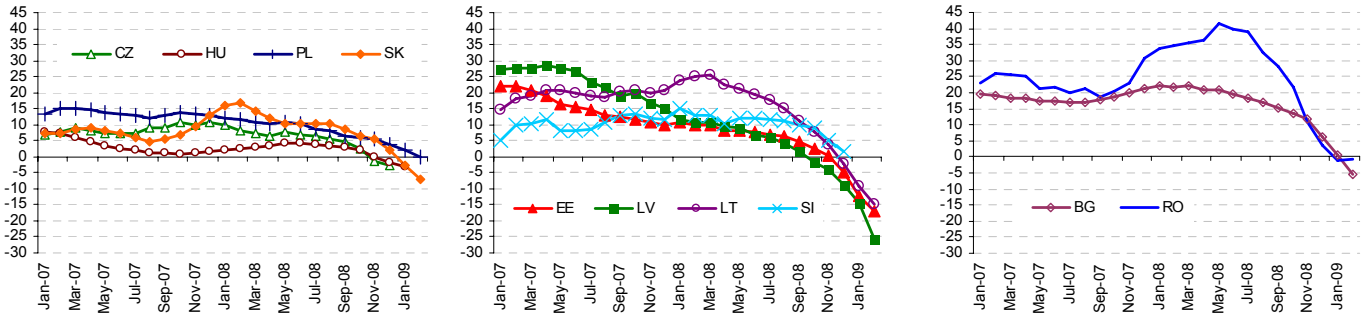
Lithuania and Romania. Similarly, retail sales contracted in some countries in the fourth quarter of 2008 and continued to decline in first months of 2009.

Figure 11. Contribution to GDP Growth 1Q-4Q 2008, (in percentage points)



Source: Eurostat, Statistical Offices, World Bank Staff calculations.

Figure 12. Retail sales, (3mma, % change, yoy, wda)

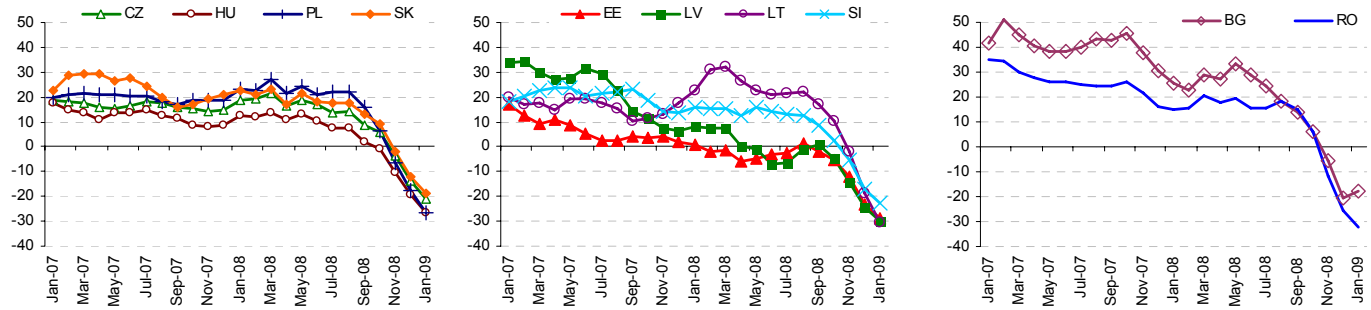


Source: Eurostat, World Bank Staff calculations.

Note: Retail trade, except of motor vehicles and motorcycles

A silver lining is that the drop in domestic demand, the decline in international commodity prices, and the depreciation of currencies in some countries have helped engineer much needed adjustments in current account balances. All EU10 countries run current account deficit in 2008, ranging from 3 percent of GDP in the Czech Republic to 25 percent of GDP in Bulgaria. In most countries, current account deficits fell by about two-thirds in the first two months of 2009 year-on-year. Trade deficits narrowed in all EU10 countries as shrinking domestic demand and falling commodity prices hit imports severely. Imports declined year-on-year by more than 30 percent in most of the EU10 countries in early 2009, exceeding even the decline in exports. The adjustment is especially pronounced in countries with fixed exchange rates, including Bulgaria and the Baltic countries.

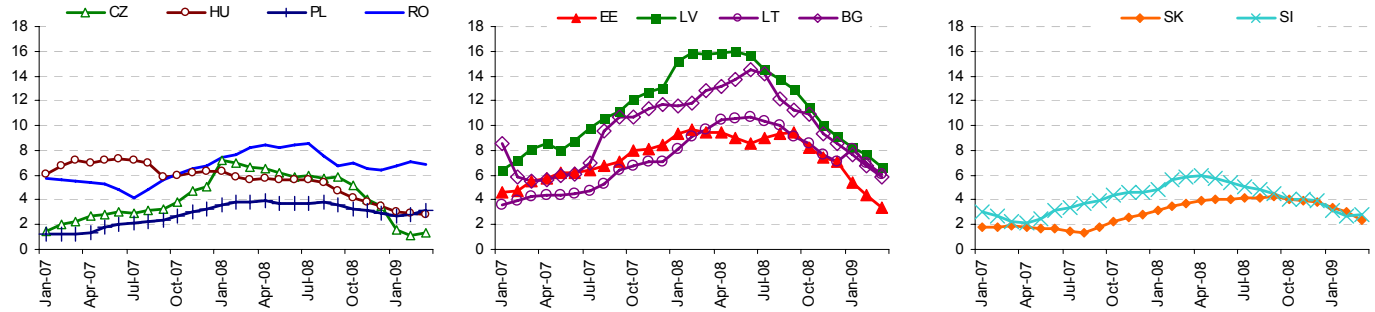
Figure 13. EU10 imports, (3mma, % change, yoy)



Source: Eurostat, World Bank Staff calculations.

The slowdown in economic activity and subsequent decrease in the output gap have dampened wage increases and reduced profit margins, which in turn have subdued inflation pressures. The median output gap in the region is expected to decline from 4.5 percent of potential output in 2008 to -1.8 percent in 2009 and -4 percent in 2010. Price increases also moderated due to the sharp contraction of international commodity prices on the back of the weakening global economy. As a result, inflation rates are declining across the region, although exchange rate depreciations put some upward pressure on prices in some countries. Headline inflation in the EU10 countries came down sharply in the fourth quarter of 2008. It continued to fall in the first quarter of 2009 in the countries with fixed exchange rates, while it stabilized in other countries either due to delayed effect of increase or due to the pass-through effect from the depreciated currencies. Median inflation in the EU10 countries was 3.4 percent year-on-year in March 2009, down from a recent peak of 8 percent in July 2008.

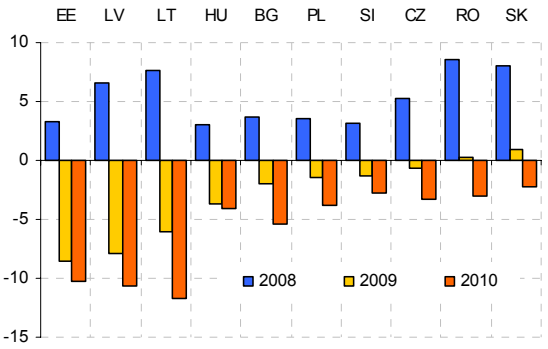
Figure 14. Headline inflation, (% change, yoy)



Source: Eurostat, World Bank Staff calculations.

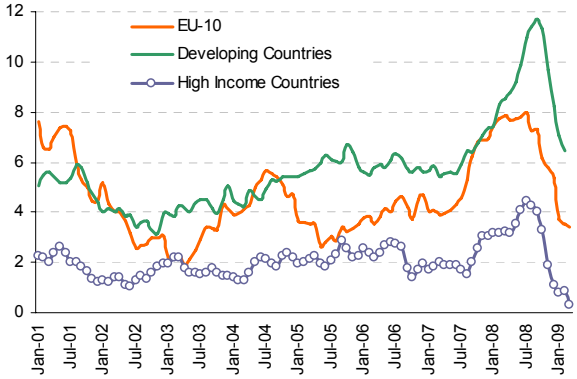
The decline in inflation is set to continue during 2009, with the largest reduction expected in Bulgaria and the Baltic countries. This trend is likely to bring down divergences in inflation rates across the region. The Baltic countries, which still had double-digit inflation rates in 2008, could experience deflation in 2010. This adjustment would help them to improve competitiveness within the framework of fixed exchange rates.

Figure 15. Output gap relative to potential GDP, (% of GDP)



Source: EC Spring Forecasts, May 2009

Figure 16. Consumer Price Inflation, (annual % change, median)

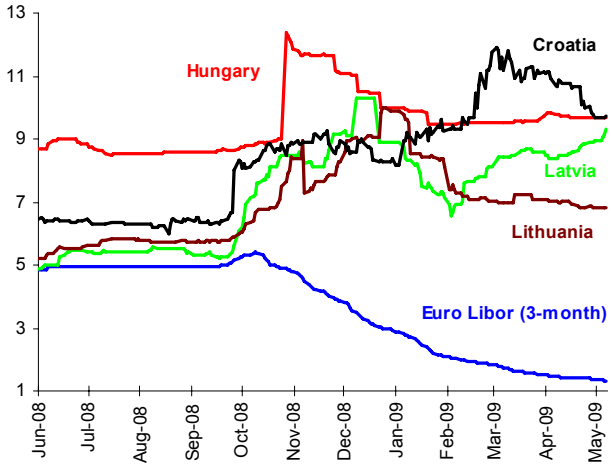


Source: Datastream and World Bank.

Tentative Stabilization of Financial Markets

After years of high profitability, the ongoing recession is now weakening the financial sector. In spite of unprecedented action by governments and central banks around the world, global financial markets remain under stress as the solvency of systemically important financial institutions still needs to be fully reestablished. New securities issues have declined sharply, bank flows reduced, equity prices dropped, bond spreads increased, credit growth declined, and exchange markets come under pressure. The concerns about bank assets have spread from mortgage-backed securities to a broader range of assets, including corporate and consumer loans. The IMF's Global Financial Stability Report from April 2009 estimates that global credit write-downs since September 2008 might have amounted to around $4 trillion, some two-thirds of which might fall on banks. Since September 2008, EU banks alone have disclosed losses of about EUR290 billion.

Figure 17. Interbank rates for some EU10 countries

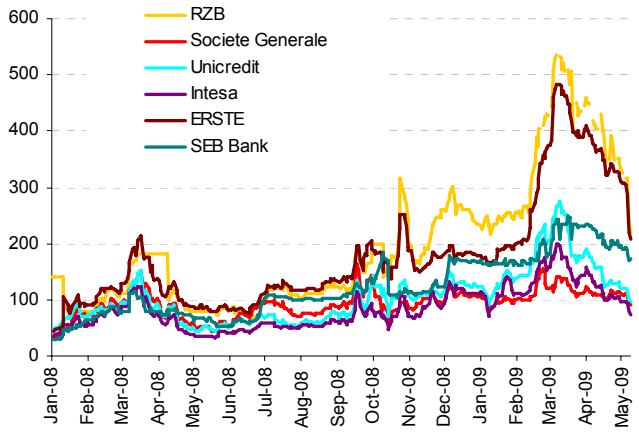


Source: World Bank Global Prospect Group, World Bank Staff calculations.

The crisis has affected financial markets in the EU10 region through concerns about the negative spillovers from troubled EU15 banks, and exposed home-grown vulnerabilities. They range from currency mismatches on borrowers balance sheets, weak risk management, and underwriting standards. The viability of EU banks is central to the EU10 region's financial markets. As reported in the May 2009 European Commission Economic Forecast, banks from EU15 countries have about EUR950 billion foreign claims on EU10 countries and other European emerging markets, i.e., around four-fifths of total foreign claims. Cross-border banking exposure to these regions amounts for close to 70 percent of Austrian GDP, and around 25

percent of Belgian and Swedish GDP. Some countries' exposures are geographically more diversified (France, Germany and UK) than others (Austria, Sweden, Belgium). For example, Scandinavian banks mainly focus on the Baltic countries, while Austrian banks are more active in the central European countries. The reliance on cross-border funding has exposed banks in the Baltic States, Bulgaria, Hungary and Romania to potential balance sheet pressures of their parent banks in their home markets. Fortunately, to date, subsidiaries of foreign banks have largely maintained their exposure, and the credit default swap spreads of parent banks have come down significantly. However, a further deterioration in the economic outlook could change the situation (see 'In Focus' Note on *Cross-border Bank Funding*). Beyond the banking sector, the corporate sector in the EU10 region faces large rollover needs of external financing, while the domestic market offers little alternative sources of financing.

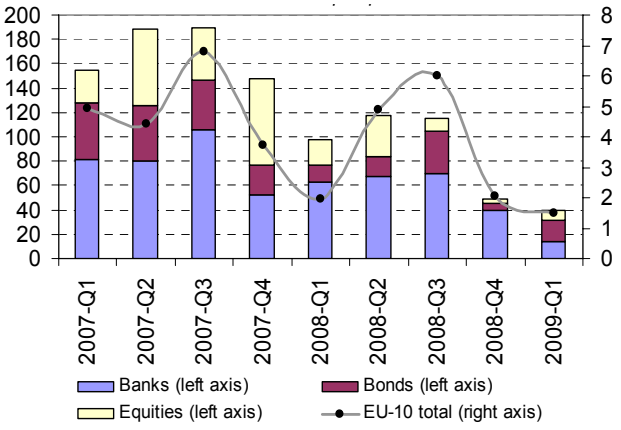
Figure 18. European Banks' 5-year CDS (bps)



Source: Bloomberg, Datastream, World Bank Staff calculations.

Unprecedentedly ambitious and wide-ranging policy responses on the part of the authorities have succeeded in bringing down interbank spreads from the peaks that followed the default of the US investment bank Lehman Brothers in September 2008. Liquidity for banks is currently abundant, owing in good measure to massive central bank injections. But banks still face huge financial and economic uncertainties in the near future. This is particularly significant for EU10 countries, which have less-developed domestic interbank markets. Among the EU10 countries where data is available, interbank rates have eased in Bulgaria, the Czech Republic and Lithuania. Volatility remains high, and banking sector liquidity is shallow in some countries, which prompted occasional spikes in interbank rates.

Figure 19. Gross capital flows to emerging markets and emerging EU10 countries, USD, bln per quarter



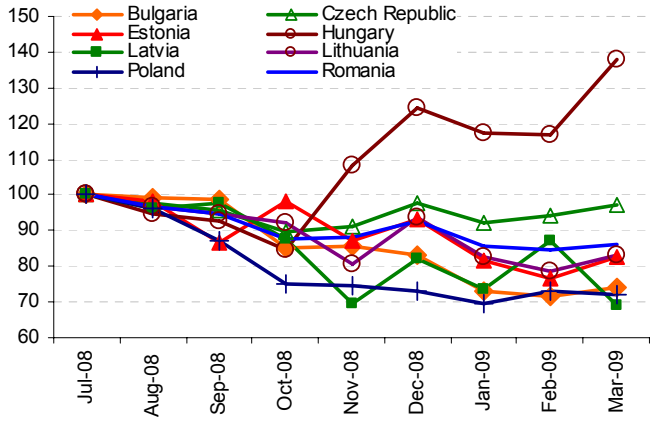
Source: World Bank Global Prospect Group, World Bank Staff calculations.

The financial crisis has reduced capital flows to the EU10 region. In line with trends for emerging markets in general, total gross inflows to the Baltic countries, Bulgaria, Poland, Romania and the Slovak Republic (emerging EU10 countries) contracted from about $6 billion in the third quarter of 2008 to $2 billion in the fourth quarter of 2008, and to $1.5 billion in the first quarter of 2009. The decline reflects mainly the drop in bank lending, as global bond markets reopened to emerging market borrowers, such as Mexico, Poland, and Indonesia, in the first months of 2009. Poland was the only EU10 country that enjoyed positive net foreign lending in the first two months of 2009, mainly to banks, which helped to compensate for some of the outflows towards the end of 2008.

The decline in capital flows has put pressure on countries' gross official reserves, although some countries have managed to rebuild their position. Between September 2008 and February 2009, Romania's reserves by €1.6 billion; and Bulgaria's reserves declined by close to €3 billion, also due to an easing of reserve requirements and an increase in government spending at the end of 2008. In the Czech Republic, international reserves remained broadly unchanged in April 2009 compared to December 2008. In the last quarter of 2008, Hungary's gross reserves increased by $8 billion from October 2008 to March 2009 due to international financial support.

The financial crisis has depressed foreign direct investment (FDI) to the EU10 region. Slower growth squeezed the profitability of most multinationals, and tighter credit conditions and weaker global demand are expected to limit the ability and willingness of multinationals to expand. The decline in net FDI flows started in mid-2008 and deepened in early 2009. FDI flows to Bulgaria declined by 12 percentage points of GDP in 2008 according to preliminary data as investments in real estate dropped, although from a high base of almost 30 percent of GDP in 2007.

Figure 20. International Reserves Assets, index, July 2008=100

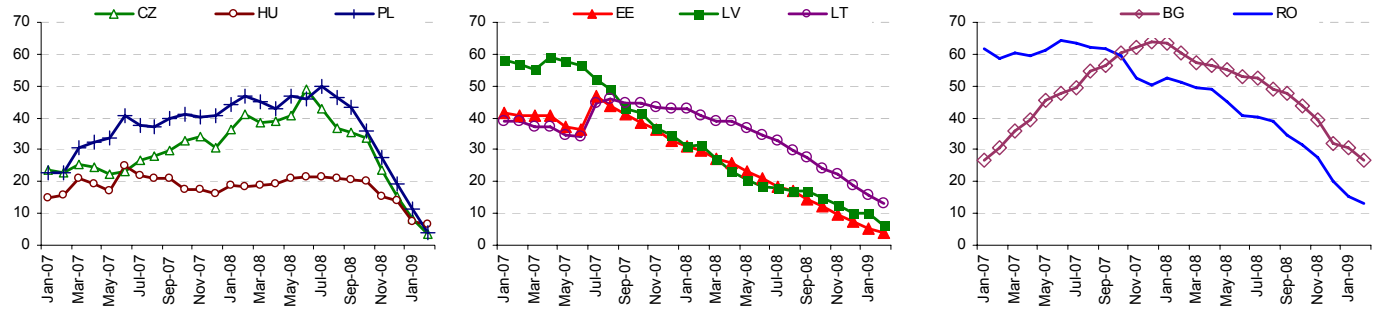


Source: IMF, World Bank Staff Calculations

The decline in FDI was however not universal. FDI increased in Romania and Hungary during 2008 by more than 1 percentage points of GDP. In the first two months of 2009, FDI performed well in Romania, Hungary and Lithuania, but declined by close to 30 percent year-on-year in Bulgaria and Poland, and by more than half in the Czech Republic, Estonia and Latvia.

Credit growth to the private sector, which financed much of the region's recent economic growth, has declined sharply. Banks have imposed tighter lending standards and borrowers reduce demand in view of uncertain economic prospects. In February 2009, year-on-year credit growth fell below 15 to 5 percent in the Czech Republic, Estonia, Hungary, Poland, and Latvia, some 15 to 45 percentage points below the peaks in 2008.

Figure 21. Credit to private sector, yoy, percent

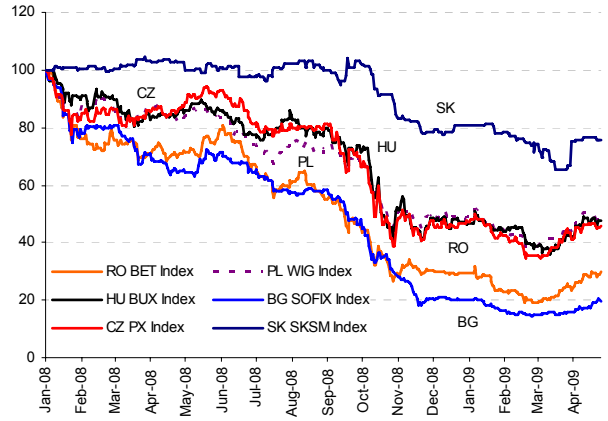


Source: ECB, World Bank Staff calculations.

There are early signs of a thaw in stock markets. Following global trends, the Emerging Europe and European Monetary Union equity indices posted gains, rising 44 percent and 30 percent, respectively, from 2009 troughs in early March. They recovered to levels reached at the beginning of 2009. While stock markets typically recover from an economic crisis ahead of

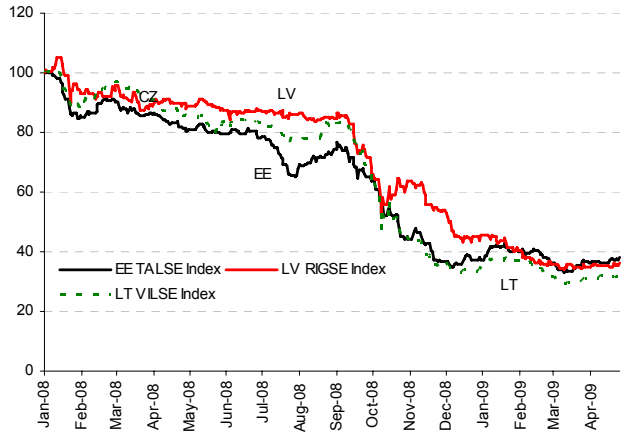
the end of recession, the unprecedented synchronized nature of this crisis makes it difficult to judge whether this rally signals a return to growth.

Figure 22. Morgan Stanley Capital International Indices, equity prices (Jan1,2008=100)



Source: World Bank Global Prospect Group, World Bank Staff calculations

Figure 23. Stock Market Indices (January 2008=100)



Source: Reuters, World Bank Staff calculations

Sovereign bond yields in the euro area have come down due to flight to quality, the decline in inflation expectations and the rise in demand for high quality collateral. Investors have also become more discriminating between sovereign issuers, and yield spread have widened sharply for several member states relative to the German Bund benchmark, although the spreads have come down somewhat recently. Emerging market bonds rallied in recent weeks, coinciding with the surge in global stocks, as bond spreads tightened by 149 basis points to 564 basis points between early March and mid-April. Emerging market bond spreads have recovered from a seven-year high of 874 basis points, reached in late-October, but they remain well above pre-crisis levels.

Yet, performance is mixed across the EU10 region. For example, in Hungary, bond spreads increased even after international financial support was received (see the 'In Focus' Note on *Increased Market Differentiation - Evidence from High Frequency Spread Data*). Still, Hungary's Debt Management Agency resumed regular domestic government bond auctions at end-April 2009 with three issues of three, five and ten-year bonds. The debt agency had suspended bond auctions in October 2008, when Hungarian markets were hit by the global financial crisis. Since then it had conducted only one bond auction in February.

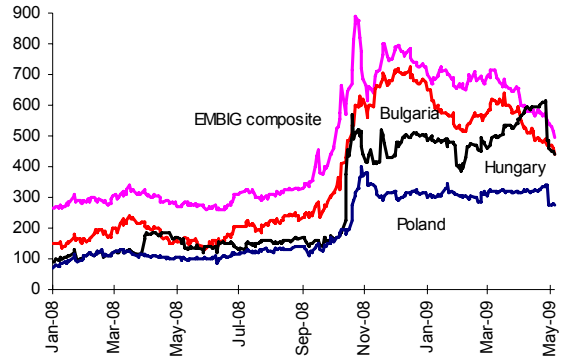
Table 3. Euro Denominated Bond issuance by EU10 countries since September 2008

Issuer	Issuer Nationality of Incorporation	Issuer Type	Maturity Date	Deal Pricing Date	Deal Total Value $ (Proceeds)	Offer Price %	Coupon
Czech Export Bank as	Czech Republic	Public sector bank	15-Sep-11	03-Sep-08	101,739,577	99.945	6-mth Euribor +18bp
EuroLease Auto Finance EOOD	Bulgaria	Special Purpose Vehicle	03-Sep-10	03-Sep-08	290,845,634	100	
Ceska Exportni Banka AS	Czech Republic	Public sector bank	15-Sep-12	12-Sep-08	69,739,870	100	6-mth Euribor +20bp
Ceske Energeticke Zavody as - CEZ	Czech Republic	Public sector utility	17-Sep-38	17-Sep-08	114,905,658	100	3.005
Ceske Energeticke Zavody as - CEZ	Czech Republic	Public sector utility	22-Sep-38	22-Sep-08	1,550,598	17.862	0
Republic of Lithuania	Lithuania	Central government	20-Dec-21	23-Dec-08	94,372,597	90	3-mth Euribor +160bp
Republic of Poland	Poland	Central government	03-Feb-14	22-Jan-09	1,288,187,044	99.725	5.875
Republic of Lithuania	Lithuania	Central government	09-Dec-15	29-Jan-09	187,917,687	100	9.95
Ceska Exportni Banka AS	Czech Republic	Public sector bank	17-Mar-12	12-Mar-09	180,394,798	94.557	6-mth Euribor
Ceska Exportni Banka AS	Czech Republic	Public sector bank	29-Apr-14	20-Apr-09	150,000,000	100	3-mth Libor +250bp
Czech Republic	Czech Republic	Central government	05-Nov-14	29-Apr-09	1,963,168,697	98.839	4.5
Republic of Poland	Poland	Central government	03-Feb-14	07-May-09	1,016,245,234	101.279	5.875

Sources: World Bank Global Prospect Group.

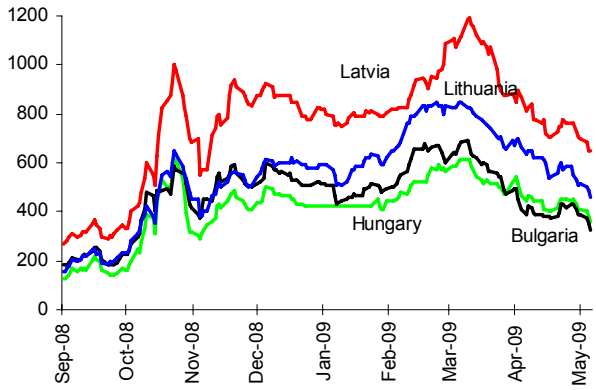
Euro-denominated corporate bond spreads have narrowed recently and companies succeeded in placing substantial bond issuance. While this suggests that the risks from upcoming maturities are manageable, a worsening business environment could still bring about rising corporate defaults.

Figure 24. Emerging Market Bond Index Global (EMBIG) spreads for Emerging Europe



Source: World Bank Global Prospect Group, World Bank Staff calculations.

Figure 25. Credit default swaps spreads for Hungary, Latvia, Lithuania and Bulgaria



Source: World Bank Global Prospect Group, World Bank Staff calculations.

With sporadic bouts of volatility, sovereign credit default swaps (CDS) spreads in EU10 countries have tightened substantially since early-March, even though they still remain far above pre-crisis levels. Many EU10 countries experienced a sharp widening in CDS spreads for the most parts of 2009, on account of the well-publicized vulnerabilities in the banking sector. Notably, Latvia's 5-year CDS spreads spiked to over 1,110 basis points in early-March as rating agencies warned of major crisis brewing in the Baltic countries. Elsewhere, Lithuania, Romania, and Hungary have also seen their sovereign debt insurance costs rise as broad demand for protection to hedge country risk sent CDS spreads notably higher in many countries.

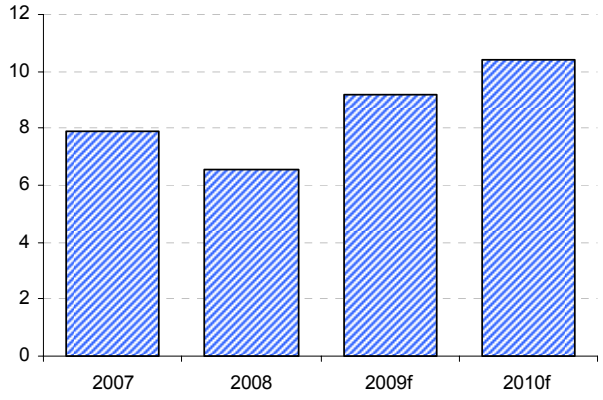
The share of gross external debt in GDP expanded in all EU10 countries in 2008, but is expected to contract sharply this year, at least as far as non-sovereign debt is concerned. External debt levels exceeded 100 percent of GDP in Bulgaria, Estonia, Hungary, Latvia, and Slovenia. With the exception of Latvia, debt levels increased mostly on the account of private short-term borrowing which is expected to decline substantially this year, while public debt is expected to increase further in most of the countries as a result of high financing needs.

Unemployment on the Rise

The slowdown in the real economic sector has worsened labor market conditions. While firms were reluctant to lay-off workers initially, the downward revision in the economic outlook is expected to reduce employment significantly in 2009 and 2010. Rising unemployment is a key factor that could derail any nascent recovery—as higher joblessness could translate into lower household incomes, remittances and consumer demand with negative feedback loops to the financial sector, including rising non-performing loans. Even if growth rebounds by 2010 as projected, it could take years to reabsorb excess labor pools.

The OECD announced at end-March that it projects average unemployment in the 30 richest countries will exceed 10 percent in 2010. The U.S. unemployment rate jumped to 8.5 percent in March, up from 6.2 percent in September 2008. The EC projects employment to fall by some 8.5 million in the EU over the next two years, compared to an employment increase by some 9.5 million during 2006 to 2008. This would translate into an increase in the unemployment rate from 7.0 percent in 2008 to 10.9 percent in 2010.

Figure 26. EU 10 Unemployment rates

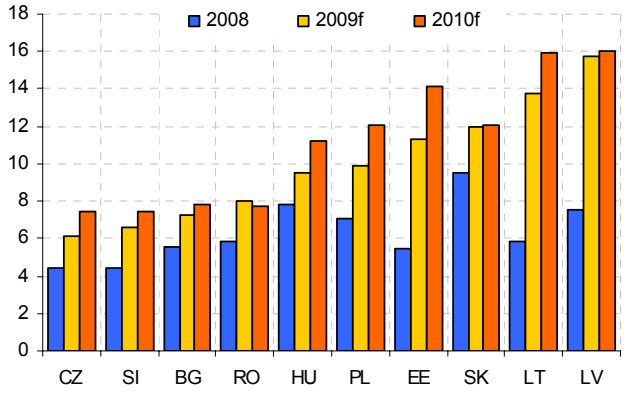


Source: EC Spring Forecasts, May 2009, World Bank Staff Calculations

For the EU10 countries, the days of labor shortages and high wage growth, characteristic of recent boom years, appear to be gone for now. The demand for labor has substantially weakened and unemployment went up throughout the region, with large entries coming from manufacturing and construction. According to EC estimates, this would increase the unemployment rate in the EU10 countries from 6.5 percent in 2008 to 9.2 percent in 2009 and 10.4 percent in 2010. This would imply an increase in the number of unemployed from 3.1 million in 2008 to 5.0 million in 2010, and a decrease in the number of employed from 44.7 million in 2008 to 43.1 million in 2010[1].

[1] Based on labor force forecasts from EC Ameco database.

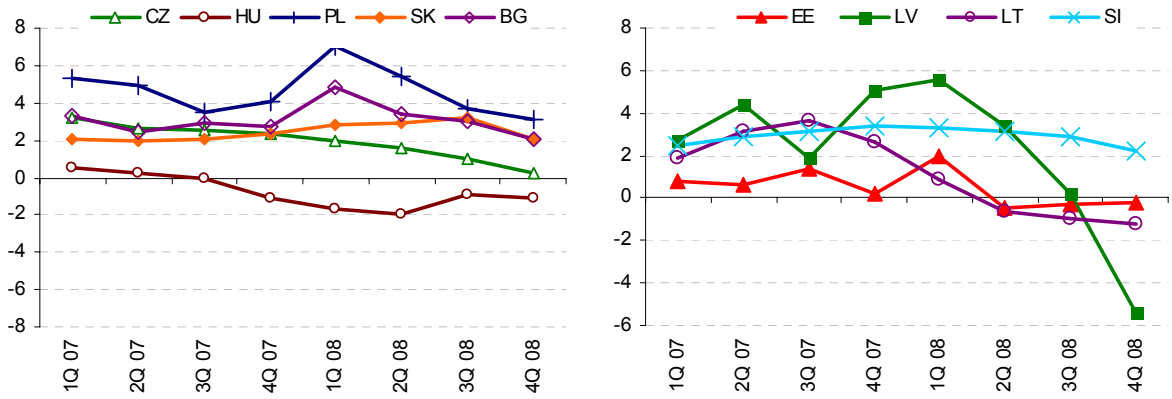
Figure 27. Forecasts of unemployment rates in EU10 countries, (percent)



Source: EC Spring Forecasts, May 2009.

The deterioration in the labor markets is closely linked to the downturn in economic activity. Estonia, Latvia and Lithuania are expected to see large increases in unemployment on the back of the substantial contraction in the economy. Unemployment rates in these countries more than doubled relative to the same period of 2007, and reached levels which are among the highest in the EU. Employment growth was negative in Hungary and the Baltic states in the last quarter of 2008. Unemployment is also rising in the other countries of the region, and is likely to exceed 10 percent of the labor force in the Slovak Republic, Hungary and Poland by 2010. Return migration of the over 1 million EU10 citizens who moved to crisis-hit countries such as UK, Ireland and Spain since 2004 is adding further pressure in domestic labor markets (see the 'In Focus' Note on *Fiscal Impact of EU Migration*).

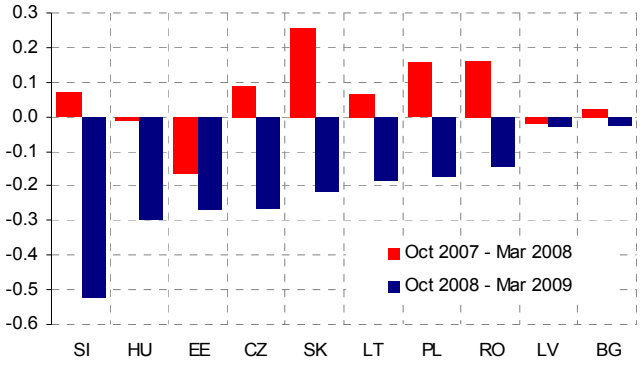
Figure 28. Employment growth rate, yoy



Source: Eurostat, World Bank Staff calculations

Labor market prospects remain bleak. The number of planned net job creations as a percent of the labor force announced between October 2008 and March 2009 turned negative compared to the same period over the last year. Across the region, planned job reductions are concentrated in manufacturing which accounting for more than four-fifths of all planned job losses. Unemployment is also set to rise among construction workers.

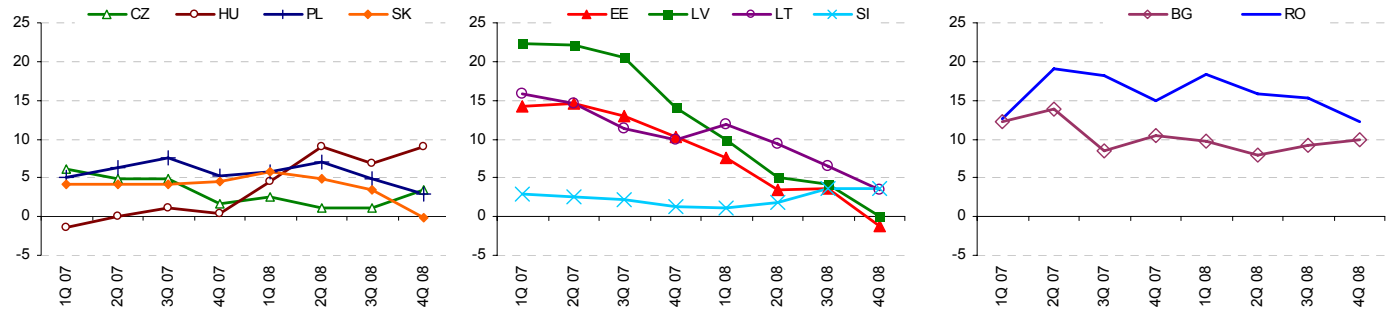
Figure 29. Net job creations as percentage of labor force



Source: European Restructuring Monitor, http://www.eurofound.europa.eu/emcc/index.htm, World Bank Staff calculations.
Notes: Net job creations are calculated as job creations- job reductions in a given period.

Slack labor markets, wage restraint in the public sector and declining inflation have moderated wage pressures in the region, a trend expected to continue throughout 2009. While nominal wage pressures are easing given the decline in output gaps, real wages are still set to increase in view of declining inflation. Wages in the declining sectors are the most affected, although there are still large differences across the region. In the Slovak Republic, real wages in industry have contracted in February by 1.9 percent year-on-year, while in Romania they increased by 7.1 percent year-on-year.

Figure 30. Real wage growth, (% change, yoy)



Source: Statistical Offices, World Bank Staff calculations

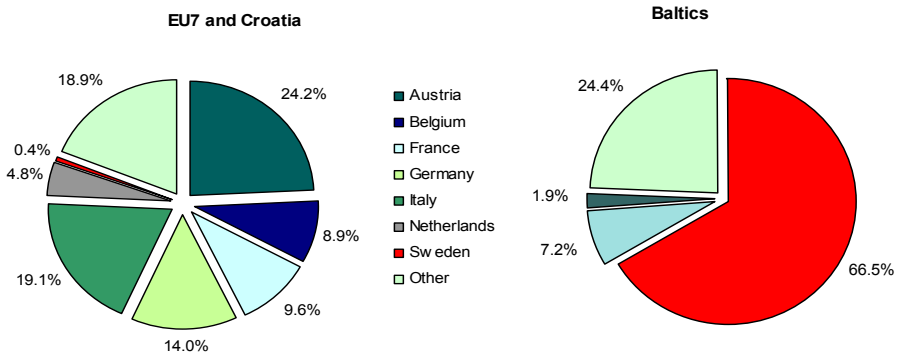
Macroeconomic Policies for Stabilization

The recovery from the global economic crisis depends foremost on restoring market confidence with the help of a forceful and coordinated policy response. This includes providing financial institutions with access to liquidity, dealing with toxic assets, and recapitalizing viable but weak institutions. Progress is most advanced on the first issue, and more needs to be done on the second and third issue. EU member states have provided about EUR270 billion for recapitalization of banks and EUR3,200 billion for enhancing bank access to funding. All EU10 countries have established or expanded deposit insurance, and strengthened liquidity, mainly through expanding repo operations (most countries), decreasing minimum required reserves (Bulgaria, Romania), increasing guaranteed amount of deposits with banks and providing foreign exchange liquidity through swap arrangements or EU transfers (Hungary, Poland). A number of countries, including Hungary, Latvia, Poland, Romania and the Slovak Republic, have also established recapitalization plans.

Financial stability in the EU10 region depends on the collective action of banking groups active in the region. In view of the dominance of foreign banks and dependence on cross-border financial flows, the EU10 countries have de facto only limited control over the stability over their financial sectors. Limited information about the balance sheets of foreign banks, as well as uncertainty about the scale and conditions of support to parent banks from governments in their home countries, make it difficult for EU10 countries to gauge the risks for their banking system. In view of the large cross-border exposure, there are also concerns about the ability of some countries to honor their commitments to depositors in other member states if one of their banks fails. At the same time, the initially uncoordinated moves of some EU15 countries to grant guarantees for deposits and other debt of domestic banks raised the risk of reallocation of funds away from EU10 countries.

This requires an enhanced and coordinated approach to home-host banking supervision for sustained financial integration. This is easier in countries like Estonia, where one country (Sweden) accounts for about 80 percent of the foreign bank ownership, than in Hungary, where four countries (Austria, Germany, Italy and France) account for less than 75 percent of the foreign bank ownership. There is also need for regional surveillance of the adequacy of financial sector liquidity arrangements and other safety net features. The EC crisis management principles, adopted in June 2008, and the high-level report on financial supervision headed by Jacques de Larosiere, published in February 2009, provide a useful framework for such reforms.

Figure 31. Geographic Breakdown of Foreign Claims in the Banking Sector



Notes: EU7 refers to EU10 without the Baltic countries.

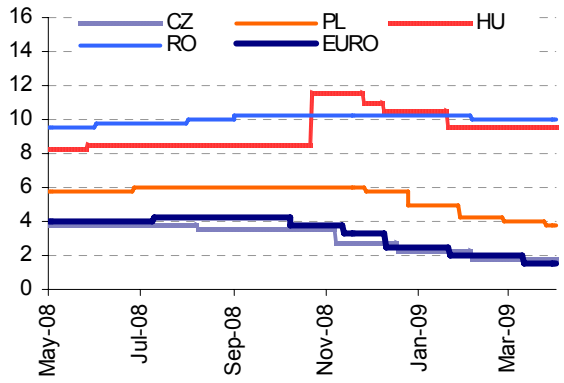
Sources: BIS, World Bank Staff calculations.

The main central banks in the world have taken strong measures to support aggregate demand in the face of a rapidly deepening recession. The European Central Bank, along with

the US Federal Reserve System and the Bank of England, have forcefully eased interest rates and increasingly adopted unconventional monetary policy measures. The European Central Bank has brought down its benchmark policy rate from 4.25 percent in early October 2008 to 1.00 percent in early May 2009.

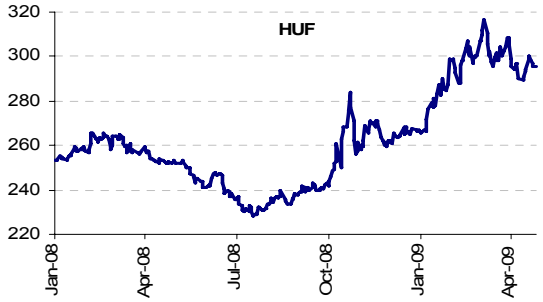
The Czech Republic and Poland have also taken steps to ease monetary policy since September 2008. They reduced the policy rates by more than 200bp as both enjoyed relatively small external financing gaps and low household leverage in foreign currencies. However, Hungary and Romania had to be mindful of the need to support external stability in view of volatile capital flows and the large domestic borrowing in foreign currencies. Large depreciation are a major risk to banks, as it reduces the equity value of subsidiaries in parent banks' consolidated accounts and results in a deterioration of the asset quality for unhedged households and companies that have borrowed in foreign currency. Since September 2008, the US dollar, euro, and yen have all appreciated in real effective terms, and some EU10 countries' exchange rates have come under pressure in view of the flight to safety and return to home bias. Romania's only recently started to bring down its policy rate, and reduced it to 9.5 percent on 6 May, 2009. Hungary's central bank has kept the main policy rate at 9.5 percent since January 20, 2009, even though inflation fell to the central bank's medium-term target of 3.0 percent in February, and the economic outlook has deteriorated rapidly.

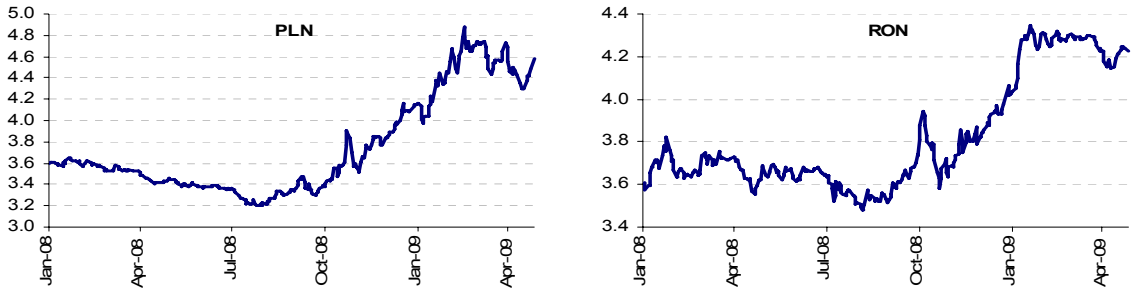
Figure 32. Policy interest rates (in percent)



Source: Central Banks and World Bank Staff calculations

Figure 33. Exchange rates vs. Euro





Source: Reuters, World Bank Staff calculations

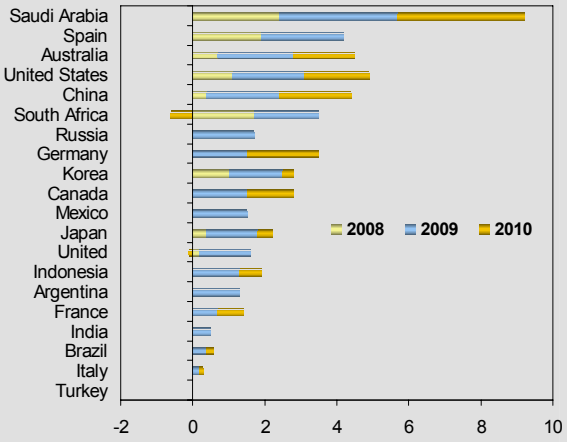
Fiscal policy has a crucial role to play in supporting domestic demand in view of the large output gap and the limited scope for additional monetary policy measures beyond the current low policy rates. In their summits in November 2008 and April 2009, the G20 countries have adopted a discretionary fiscal stimulus of about 2 percent of GDP in 2009, and about 1.5 percent of GDP in 2010. In line with the budgetary stimulus proposed in the European Economic Recovery Plan from November 2008, the EC estimates that the EU general government deficit will increase by about 5 percentage points of GDP in 2009 and 2010 due to automatic stabilizers and fiscal stimulus measures. After several years of fiscal consolidation, EU budget deficits are projected to increase from 2.3 percent in 2008 to 6 percent in 2009 and 7 percent in 2010. The rise in the fiscal deficit is due to higher social security and capital expenditures, lower revenues due to the erosion of tax bases, and the decline in nominal GDP. The increase in the primary deficit, together with measures such as the financial rescue plans, are set to increase public debt in the EU from 61.5 percent in 2008 to 72.5 percent in 2009, and close to 80 percent in 2010.

Box 1. G-20 Fiscal Stimulus Packages

Fiscal policy has been recently used widely to arrest declines in global demand and output. Stimulus packages adopted by advanced and some emerging governments to support demand averaged 1-2% of GDP in 2009. However, many have also provided off-budget loan guarantees to ensure access to capital and prevent credit crunch. In the US, the fiscal stimulus package of $788bn (5.3% of GDP) is spread over three years, with only a third of the fiscal package to take effect in 2009. Two-thirds of the package is government spending, while one-third is tax relief. Many European governments have unveiled on-budget fiscal packages in addition to off-budget loans and guarantees (exceptionally high in France, Germany, Spain and the UK). Discretionary fiscal packages combined with the automatic stabilizers, are likely to increase the Euro area fiscal deficit by about 2 percentage points of GDP. In Japan, off-budget quasi-fiscal measures in a form of public loan guarantee program for small businesses and the stock purchase fund amount to app. 2% of GDP in 2009.

BRIC countries are following the same approach, although Brazil and India less intensively. China, Korea and Russia have adopted fiscal packages of 4-5% of GDP. Expenditure-side measures implemented, particularly infrastructure spending, have a more direct impact on growth than do revenue-side measures, but carry implementation risks and come with a lag. Revenue-side measures are easier to implement and support growth in the medium run, but firms and households that benefit may save rather than spend the one-off tax gains and transfers.

Table 4. G-20 Fiscal Stimulus Packages, 2008-2010, % of GDP



Source: World Bank, Development Prospects Group, April 2009

Source: World Bank, Development Prospects Group, April 2009, IIF, World Bank Staff.

Figure 34. EU10 deficit forecasts, (% of GDP)

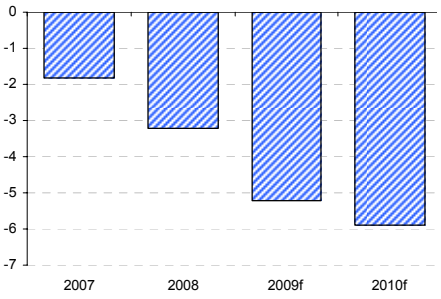


Figure 35. EU10 revenue forecasts, (% of GDP)

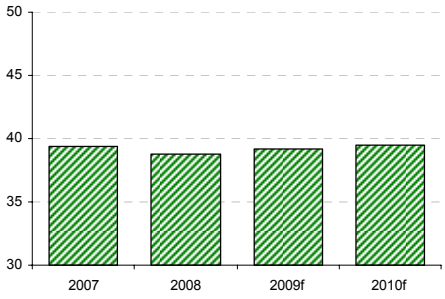
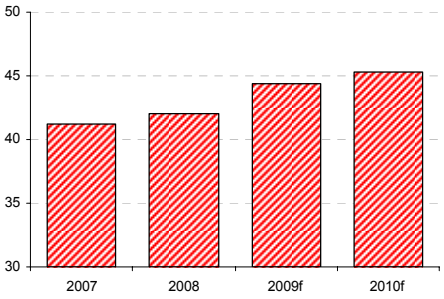


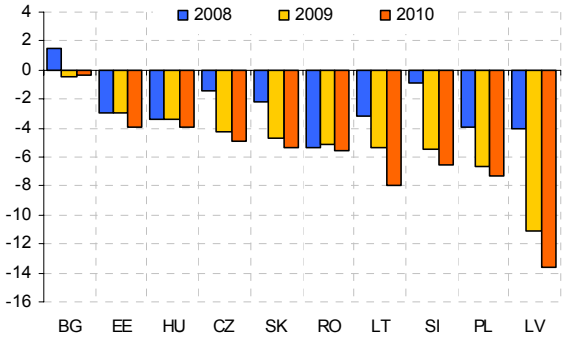
Figure 36. EU10 expenditure forecasts, (% of GDP)



Source: EC Spring Forecasts, May 2009

The EU10 fiscal deficit already increased from just under 2 percent of GDP in 2007 to just over 3 percent of GDP in 2008. While none of the EU10 countries had fiscal deficits in excess of the 3 percent of GDP threshold in 2007, Hungary, Latvia, Lithuania, Poland and Romania exceeded this threshold in 2008. Bulgaria was the only country with a budget surplus, and Hungary the only country that managed to reduce its fiscal deficit: Hungary brought down the fiscal deficit from 9.3 percent of GDP in 2006 to 3.4 percent in 2008. On May 13, the EC decided to initiate excessive deficit procedures for breaking the 3 percent of GDP budget deficit threshold in 2008 in selected EU10 countries.

Figure 37. EU10 countries deficit forecasts (% of GDP)



Source: : EC Spring Forecasts, May 2009, World Bank Staff calculations

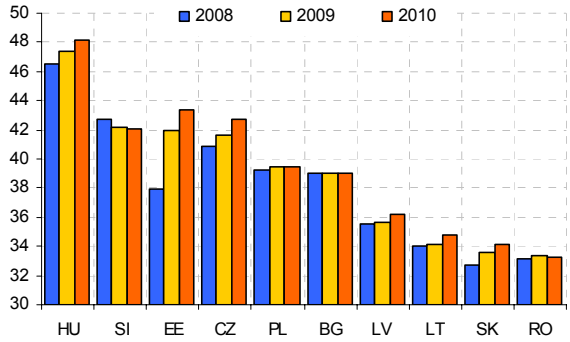
The EU10 countries' fiscal deficits are expected to increase further in 2009 to over 5 percent of GDP. Only Estonia, Hungary and Romania were projected not to increase their fiscal deficits. Ex ante, the principal reason for these increases in budget deficits is the sharp rise in public expenditures as percent of GDP across all EU10 countries, mainly due to the decline in GDP and some automatic stabilizers. Across the EU10 region, public expenditures are expected to increase from 42.0 percent in 2008 to 44.4 percent in 2009. However, most of the countries reported a double-digit indirect tax revenue decline in the first quarter of 2009. This suggests that the revenue projections, which foresee increases in the revenue-to-GDP ratio in all countries with the exception of Bulgaria and Slovenia, could prove to be too optimistic, as would – by implication – the fiscal deficit targets.

Table 5. Ongoing procedures under article 104 of the Treaty (Excessive Deficit Procedure)

Country	Date of the Commission report	Council Decision on existence of excessive deficit	Deadline for correction
PL	13-May-09		
RO	13-May-09		
LT	13-May-09		
MT	13-May-09		
FR	18-Feb-09	27-Apr-09	2012
LV	18-Feb-09		
IE	18-Feb-09	27-Apr-09	2013
EL	18-Feb-09	27-Apr-09	2010
ES	18-Feb-09	27-Apr-09	2012
UK	11-Jun-08	08-Jul-08	financial year 2013/14
HU	12-May-04	05-Jul-04	2009

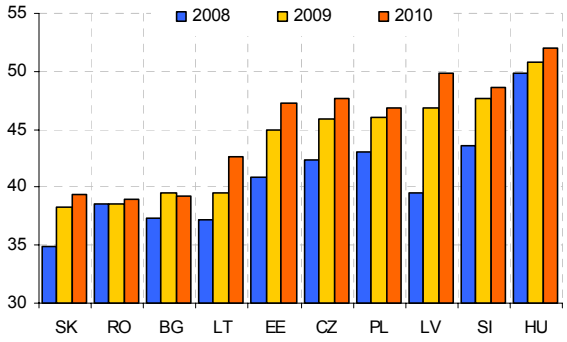
Source: EC

Figure 38. EU10 countries revenue forecasts (% of GDP)



Source: EC Spring Forecasts, May 2009.

Figure 39. EU10 countries expenditure forecasts (% of GDP)



Source: EC Spring Forecasts, May 2009.

The EU10 countries face the difficult task of reconciling short-term fiscal needs with ensuring longer-term fiscal sustainability. The March 2009 fiscal notifications suggest large overruns in fiscal deficits compared to the 2009 fiscal deficit targets embedded in the November 2008 convergence programs. These fiscal deficit overruns are expected even though most of the governments refrained from adopting any major discretionary fiscal stimulus. The collapse in revenues, the fiscal support of the financial sector, public spending to shore up safety nets ranging from unemployment benefits to pension systems, is already imposing a heavy burden on government budgets and inflating public debt levels. According to EC projections, EU10 public debt as percent of GDP is set to increase from 37 percent in 2008 to 41 percent in 2009 and to 46 percent in 2010. In addition, volatile financial markets increase the costs of raising funds to support higher fiscal deficits. Only countries with stronger macroeconomic fundamentals have put together fiscal packages to boost aggregate demand, such as Slovenia or the Czech Republic (still to be approved). Instead, as part of the budget revisions, a number of EU10 countries are taking measures to limit public sector wages and employment, cut spending on operations and maintenance, postpone investments and reduce subsidies.

Several governments have postponed meeting their medium-term fiscal consolidation targets in view of the deterioration of public finances. Bulgaria's fiscal surpluses have been essential for strengthening confidence in the currency board arrangement. Yet, achieving the 3 percent budget surplus target is ambitious given the economic slowdown and the need to mitigate the social impact of the crisis and prepare the ground for the recovery. The Czech Republic's fiscal deficit is set to widen towards 4 percent of GDP in 2009. Slovenia's fiscal deficit could widen to 3.4 percent of GDP due to expansionary fiscal policy. Estonia, Latvia, and Romania have revised their 2009 budgets in view of the deterioration in the economic outlook. More countries are expected to follow suit in the next few months.

Table 6. Summary of Fiscal Stimuli or Austerity Measures, EU10

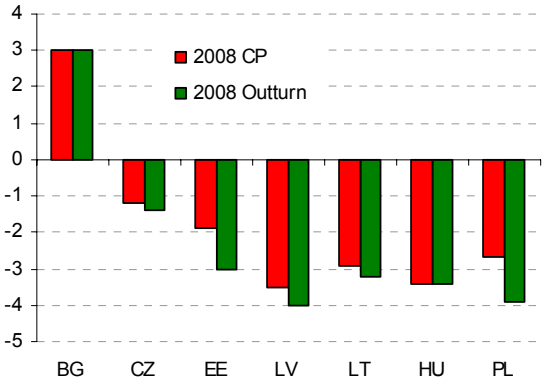
	CGG Deficit, % of GDP		Fiscal instruments	
	2009 Plan	2009 Budget Revision	Austerity measures	Selected stimuli measures
BG	3%	Pending (surplus to fall to 1.4%)	*Spending side*: Freeze on budget salaries. Further cuts in O&M, subsidies, and investment. Budget buffer of a 10% across-the-board cut of planned expenditures.	*Spending side*: Frontloading part of the planned infrastructure investment. Allocation of funds (0.7% of GDP) from the FRA to a state-owned bank for credit lines to banks. ALMP for people losing jobs because of the crisis and reduced working time.

CZ	-1.6%	Pending (deficit to widen to -3.7%)	*Spending side:* Decrease in state employment	*Spending side:* Capital injections to banks borrowing to exporters, SMEs. Guarantee and support of SME credits. Subsidies for a buildings' energy-demand reduction. Subsidies for a renovation of residential buildings. Provision of transport service. *Revenue side*: Decrease in SSC paid by employees and employers. Faster depreciation and VAT refunds. Broadening of the VAT deductions on personal vehicles. Abolition of advances of CIT/PIT for small enterprises.
EE	-1.3%	-3.0% (May 2009)	*Spending side:* Contributions by the state to the 2nd pillar pension funds (4% of salary) to be halted for two years, starting from June Freeze of Estonian Railways' share capital Postponing the purchase of liquid fuel reserve Public sector wage bill cut by 18% Reducing health-care benefits, curbing pension expenditure, cutting farming subsidies *Revenue side*: Raising unemployment insurance fee. Planned reduction of PIT rate postponed.	*Spending side:* Credit guarantees for exporters (SMEs)
HU	-2.5%	Pending revision to -3.9% (or else will widen to -4.5%)	*Spending side:* Elimination of bonus payments for pensioners and public sector employees. Nominal freeze of public wages, pensions, some social benefits. Cutting gas and housing subsidies. Implementation of a credible restructuring plan for public transportation. Incentives for efficiency gains at the local level. Cuts in family allowances and sick leave benefits. *Revenue side:* Higher excise duties. Increase in VAT to 25%, with a lower 18% introduced temporarily for essential goods and services such as heating. Corporate tax rate to be raised to 19%	*Spending side:* Only EU-funded programs like investment subsidies, credit guarantees and refinancing facilities to SMEs *Revenue side:* Lower payroll taxes and a small decrease in the income tax rate. 4% solidarity tax on corporations to be abolished from 2010
LV	-4.9%	Pending -4.9% (June 09)	*Spending side:* Across-the-board budget cuts by 20%, 30% and 40% Salaries' cut by 20%. Lowering the contribution rate to the 2nd pillar pension funds to 2% from 8% from May 1 to support 1st pillar.	*Spending side:* Capital injections to a bank. System of export loan guarantees to be established.
LT	-2.1%	-3% (April and June 09)	*Spending side:* Cuts in investment programs and administrative budgets. Amendments to the mandatory health insurance and the state social insurance budgets. Public sector wages to be cut 4,000 jobs in the civil service to be closed. *Revenue side*: Increase in VAT rate, elimination of preferential VAT rates, increase in CIT rate, and increase in excise rate	*Spending side:* Support to businesses in getting credit and expansion of financing for existing businesses. Speeding up the use of EU funds. Easing labor market regulations. Improving energy efficiency of the building stock (based on of EU structural funds and EIB loans). Improving the business environment, Exports and foreign investment promotion.

PL	-2.5%	Pending (June 09 or formal blockage of spending)	*Spending side*: Cuts in current discretionary expenditures. Transferring transport spending off state budget (neutral to the GG budget); *Revenue side*: Likely adjustment.	*Spending side:* Increase in limit of state guarantees. Support lending to SMEs. Acceleration of investment projects co-financed from EU funds *Revenue side*: Reduction of PIT rates. Introduced business friendly tax provisions concerning VAT.
RO	-2%	-5.1% (April 09)	*Spending side*: Across-the-board expenditure cuts. Wage freeze in the public sector and elimination or reduction of bonuses (0.9% of GDP). *Revenue side*: Social insurance contribution increased by 3.3%. *M*inimum tax for enterprises despite making losses.	
SK	-2.1%	Pending (June 09 deficit to widen above 3%)	*Spending side*: Capital expenditure cuts. Across the board of 10-15% of this year's allocations, excl. social spending.	*Spending side*: Increase in limit for state-guaranteed loans by companies.
SI	-0.3%	-3.1% (April 09 and further budget revision pending)	*Spending side*: Health and pension spending revisited. Review of the investment programs. Maintenance of the basic welfare network. Establishment of a public procurement agency to carry out supervision over public procurement. No July wage alignment in the public sector and H2 adjustment delayed for 2010. Freeze of performance bonuses payment and annual holiday allowances will be frozen at 2010 level.	*Spending side*: Boosting the lending activities of banks to improve liquidity and enhance lending to enterprises. A guarantee scheme for loans to enterprises and individual state guarantees for enterprises. The recapitalization of the SID bank.

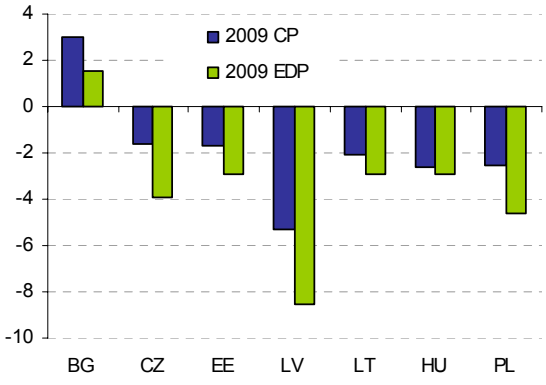
Source: World Bank Staff based on Fiscal policy Surveys

Figure 40. Fiscal balance 2008 (Convergence Program) vs. Fiscal balance 2008 outturn, (% of GDP)



Source: EC Spring Forecasts, May 2009.

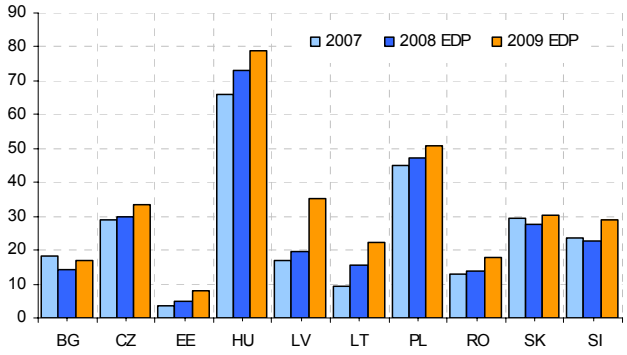
Figure 41. Fiscal balance 2009 (Convergence Program) vs. Fiscal balance 2009 EDP, (% of GDP)



Source: EC Spring Forecasts, May 2009.

Rising pressures on fiscal policy, in addition to external funding shortages and stressed banking systems, have led some countries to seek assistance from bilateral and international organizations, including the EU, the ECB, the IMF and the World Bank. The international community has provided important financial support for economic recovery, fiscal adjustment and the protection of vulnerable households. Other European institutions, including the European Bank for Reconstruction and Development and the European Investment Bank, have stepped up the amount available for commitments to EU10 countries. Hungary, Latvia and Romania have reached agreement with the IMF, the EC and the WB for a multilateral assistance package. These programs support fiscal adjustments with expenditure reductions coming mainly from current spending on goods and services and the public sector wages. Hungary's new government endorsed a policy package to ensure medium-term fiscal consolidation and prepare for euro adoption, which includes higher consumption taxes and reductions in social spending and public sector wages. Finally, Poland agreed recently with the IMF on a $20.5 billion flexible credit line to receive the stamp of approval for its sound macroeconomic policies and strengthen confidence in financial markets.

Figure 42. EU10 countries public debt, (% of GDP)



Source: :Eurostat, Ministries of Finance, World Bank Staff Calculations

Table 7. Crisis packages in EU10 countries

Country	Date	Institution	Amount	Amount as percent of 2008 GDP
Hungary			**Total: EUR 20 billion**	**19.0**
	11/06/2008	IMF	17-month EUR 12.5bn (SDR 10.5bn)	11.9
	11/04/2008	EC	24-month EUR 6.5bn	6.2
	(yet not approved)	WB	12-month EUR 1.0bn	1.0
Latvia			**Total: EUR 7.5 billion**	**32.4**
	12/23/2008	IMF	27-month EUR 1.7bn (SDR 1.52bn)	7.4
	01/20/2009	EC	27-month EUR 3.1bn	13.4
		Nordic countries	27-month EUR 1.9bn	8.2
		WB	27-month EUR 0.4bn	1.7
		EBRD, Czech Republic, Poland	27-month EUR 0.4bn	1.7
Romania			**Total: EUR 20 billion**	**14.6**
	05/03/2009	IMF	24-month EUR 12.95bn	9.5
	21/4/2009	EC	24-month EUR 5.0bn	3.6
		WB	24-month EUR 1.0bn	0.7
		EBRD and multilaterals	24-month EUR 1.0bn	0.7

Sources: World Bank Staff

There is also need to mitigate the social cost of the crisis through targeted government spending that provides effective relief to vulnerable households. This will also support the recovery of the economy, as cash-strapped households are most likely to transfer higher assistance into higher spending. Faced with a declining number of contributors and a sharp rise

in beneficiaries, unemployment insurance funds may come under pressure. Some countries, such as Romania, have responded by supplementing the resources allocated to the fund, along with an increase of the duration and level of the unemployment benefits to ease the transition of the job losers through the crisis.

For the recovery, it is important to protect priority programs to enhance growth prospects while safeguarding medium-term fiscal consolidation by reducing fiscal deficits and bringing public debt on a sustainable trajectory. While ratcheting up public infrastructure investment is often viewed to be ineffective during a normal business downturn in view of the delay in project implementation, it remains appropriate in the current environment in view of the long duration of the recession. In addition, the EU funds offer an important financing source for such projects.

The reform of public financial management (PFM) practices to ensure efficiency and effectiveness of public spending has become even more important than before the crisis. Two major reforms – medium-term expenditure frameworks (MTEF) and performance-based budgeting (PBB) – have been central elements in improving the management of public finances. MTEFs have been developed and refined by many countries to help build fiscal policy credibility and predictability via a more strategic, multi-year, budget planning perspective. At the same time, PBB concepts and methods have been especially important in many countries in bringing a greater focus on the results from government spending. International experience suggests that, implemented together, PBB and MTEF reforms can significantly raise the quality and consistency of forward estimates of public expenditures through their common use of policy-based expenditure programs and program- and activity-based costing methodologies. Both of these major budget reforms have been on the agenda of most new EU Member States and candidate countries. (Table 8)

Table 8. Date of initiation and coverage of recent MTEF reforms in the region

Bulgaria	Croatia	Latvia	Poland	Slovakia	Turkey
2006 – three -year macroeconomic and fiscal framework approved by Council of Ministers, and sectoral ceilings, only first year is binding	2003 – three-year Economic and Fiscal Policy Guidelines 2005 budget – multi-year projections of fiscal items disaggregated to the fourth level of economic classification; 2007 - Medium-Term Strategy for Development and Modernization of the State Treasury 2007-2011	2000 - government's decision, 2006 – the concept of three-year budget planning approved by Council of Ministers, not yet applied in budget preparation	Scheduled for 2009, four-year planning perspective, binding deficit level (but amendable in justified circumstances- as far as envisaged in draft legislation)	2005 – three-year budget presented in all existing classifications (four for revenues, seven for expenditures), budget targets binding only for the budget year, indicative forecasts as starting points for next year's budget negotiations	2005 – three-year rolling plans, Medium-term Fiscal Policy Statement (including fiscal plans and spending ceilings for broad categories) and Medium-Term Plan (with macro-economic indicators and policy priorities)

Source: World Bank Staff

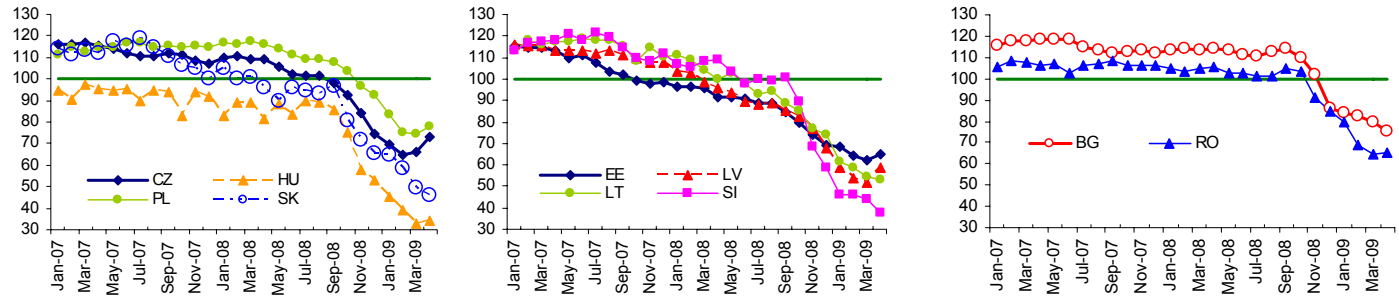
Green Shoots or Dry Twigs?

The prospects for growth and convergence of the EU10 region are likely to be uncertain over the next few years. There are a number of downside risk factors. First, rebuilding confidence in financial markets will take time. The need to bring down financial leverage could curtail credit growth for businesses and households and restrict external financing to the EU10 region. Second, since the crisis is truly global, the recovery of exports and financial flows is likely to be gradual only. Third, the vicious circle between deteriorating real economies and worsening financial markets could result in a longer and more severe recession. The downward revisions in economic outlook raise the threat of corporate and household defaults (see the 'In Focus' Note on *Household Indebtedness*). This increases the risk spreads and financial losses, and lowers asset prices, which in turn raises the vulnerability of the financial system in spite of substantial public support. The rise in precautionary savings of households would further weaken demand. Fourth, as the downturn deepens, the room for further macroeconomic policy support becomes more limited, as interest rates approach levels close to zero. At the same time, rising fiscal deficits and public debt levels could raise public borrowing costs and signal the need for more rapid fiscal consolidation. Finally, national protectionism in trade and finance and beggar-thy-neighbor policies could derail the global response and exacerbate the economic downturn.

Policy responses have been encouraging. The unprecedented actions by governments, central banks and multilateral agencies have prevented a financial meltdown and stabilized financial markets to some degree, eased concerns about cross-border banking, reduced the size of the output gap and limited unemployment increases. In recent weeks, stock markets have posted gains, interbank rates come down from their high peaks, risk premia contracted, and exchange rates appreciated. With inflation declining, this has allowed central banks to cut policy rates to bolster the economy. In addition to the forceful macroeconomic policy response in the EU and other advanced economies, the slashing of inventory will support the recovery. Real wages are still increasing in a number of countries, supporting household consumption. Finally, the region is benefiting from gains in terms-of-trade through lower commodity prices. For example, due to the expected 50 percent decline in crude oil prices from 2008 to 2009, the EU10 countries' terms of trade are expected to improve by 1.4 percent of the aggregate EU10 GDP in 2008, with gains in excess of 2 percent in Slovenia and Bulgaria. Overall, the rate of contraction is expected to moderate from the second quarter onwards, and growth could move into positive territory towards the end of 2009.

The EU Economic Sentiment Indicator rebounded in April 2009 compared to March 2009 in six out of the ten countries in the region. There are also indications that European investor confidence is improving, including in Germany and Belgium. While the outlook remains highly uncertain, a stabilization of the economic situation might already be in the making.

Figure 43. Economic Sentiment Indicator (long-term mean = 100)



Source: EC, World Bank Staff calculations

EU10 May 2009

In Focus: Trade relations and the Economic Crisis*

1. Introduction

The impact of the international economic crisis upon the EU10 has turned out to be much more severe than envisaged even a few months ago. The newest forecasts predict a decline of GDP of the New Member States as a whole in the order of -2.9 % for 2009 and of 0.3 % for 2010[2]. These forecasts remain very uncertain as they depend upon the estimates of turning points out of the recession and towards economic growth of their main trading partners, i.e. mostly the economically relevant EU partners.

Behind this prediction of growth for the group of the EU10 countries over the years 2009 and 2010 lie considerable differences in the expected performances of the individual EU10. We shall in this short paper discuss some of the factors responsible for the differentiated impact of the economic crisis and emphasize in particular the impact through the trade channels and on EU10 exports in particular.

2. Factors accounting for the differentiated impact of the crisis upon the EU10

Let us shortly discuss some of the factors which account for differentiated impacts of the crisis upon the EU10:

Access to external finance: For most of the EU10 the factor which accounts for the largest impact of the global economic crisis is reduced access to external finance. Figure 50 shows the development of the current accounts of the EU10 over the period 2000-2008 and Figure 45 shows the relationship between the state of the current account in 2007 and the cumulative decline in growth which is expected to take place over the years 2008 and 2009 (based on wiiw forecasts; Table 9).

Table 9. GDP growth forecasts - yoy, percent

	2007	2008	2009	2010	2011
EU10	6.3	4.2	-1.8	0.8	2.6
Bulgaria	6.2	6.0	-2.0	1.0	3.0
Estonia	6.3	-3.6	-9.0	-3.5	0.5
Latvia	10.0	-4.9	-12.0	-5.0	0.0
Lithuania	8.9	3.1	-5.0	-3.5	1.0
Poland	6.7	4.9	1.0	1.8	2.8
Romania	6.2	7.1	-2.0	1.0	3.0
Slovakia	10.4	6.4	-2.0	0.0	1.0
Slovenia	6.8	3.5	-1.0	2.0	4.0
Czech Republic	6.0	3.2	-1.5	1.5	2.5
Hungary	1.1	0.5	-6.0	-2.0	3.0

Source: WIIW forecasts

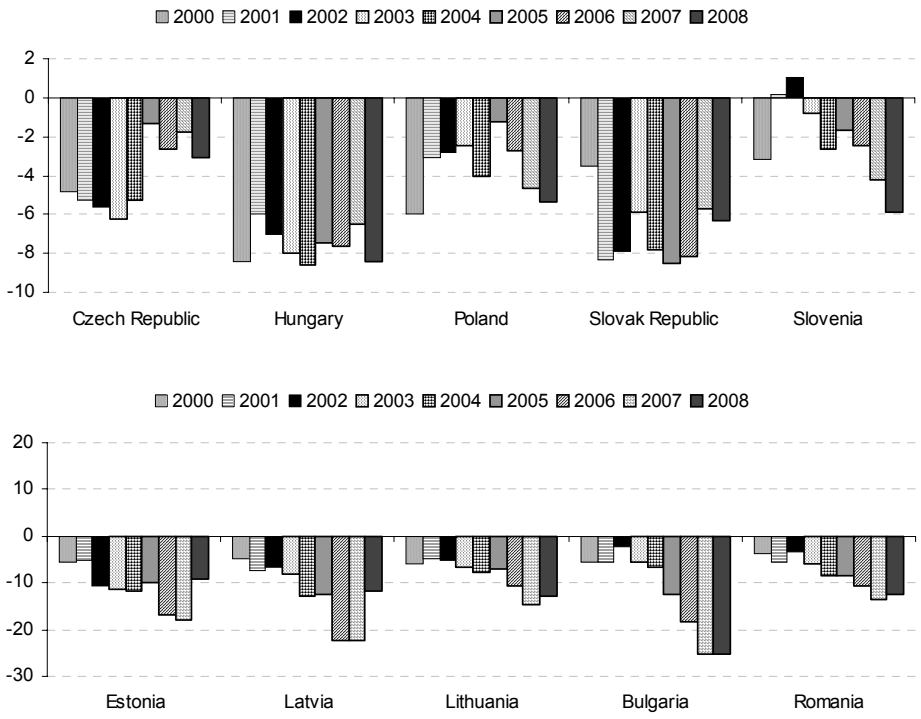
We can see, first, that country experiences with respect to current account developments and hence in the need for external finance were quite differentiated in that the first group of countries (the Czech Republic, Hungary, Poland, Slovakia and Slovenia) kept their current accounts deficits below 10 per cent of GDP, while the second group (comprising the Baltic states, Bulgaria and Romania) experienced current account deficits often well in excess of 10%

* Invitation paper prepared by Michael Landesmann (landesmann@wiiw.ac.at), Director of Research at the Vienna Institute for International Economic Studies.

[2] These figures refer to recent IMF forecasts for Emerging Europe (excluding the Czech Republic, the Slovak Republic and Turkey). See IMF , World Economic Outlook, April 2009, Table 2.4. The Vienna Institute's most recent forecast (see Table 1) is somewhat more optimistic and forecasts -1.8% growth for 2009 and 0.8% for 2010 (EU10-10).

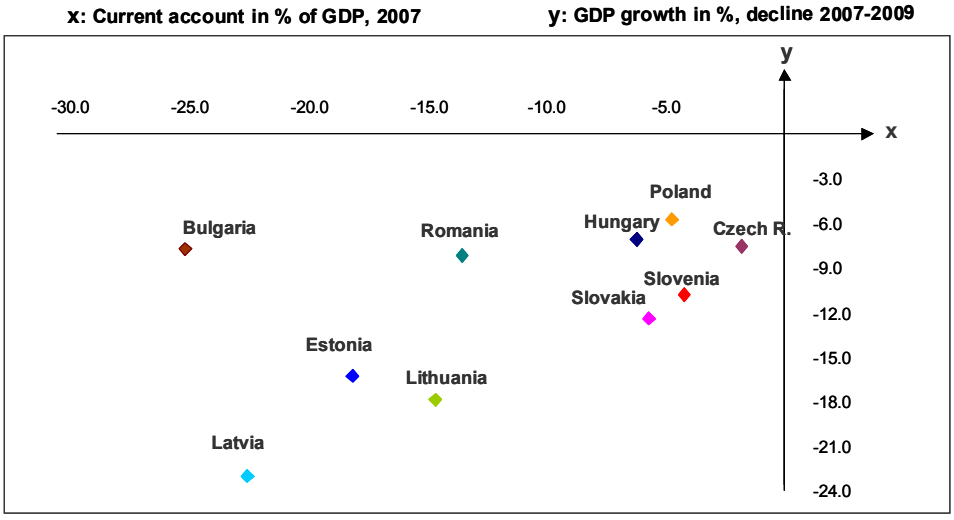
of GDP. Figure 45 shows that the expected growth declines (based on current wiiw forecasts) over the years 2008 and 2009 correlate with the degree of reliance on external finance and this is quite natural in a crisis where the characterizing feature is that of a drying out of external finance.

Figure 44. Current account in % of GDP, 1996-2008



Source: WIIW Annual Database

Figure 45. GDP growth decline and current account/GDP



Source: WIIW Annual Database incorporating national statistics, Eurostat. WIIW forecasts on GDP growth in 2009.

The state of the banking system: It is well known that international (mostly EU) banks play a very important role in the EU10 and it is their behavior in the current context which

determines to a large extent the credit availability and the stability of the banking system in the EU10. Their behavior in turn is dependent upon refinancing needs of the parent banks, the incentive in the current crisis to reduce leverage ratios and the need to take account of heightened risks in the current climate of exchange rate adjustments and macroeconomic decline.

The exchange rate system: Here we encounter a great degree of diversity. On the one hand, we have two countries (Slovakia and Slovenia) which have joined the EMU and have irrevocably given up the possibility of nominal exchange rate adjustment and of independent monetary policy. Then we have a group of economies which either have a currency board (Estonia, Lithuania, Bulgaria) or a very hard peg (Latvia); these economies have therefore committed themselves to a fixed currency regime vis-à-vis the Euro. Finally we have the floaters (Czech Republic, Hungary, Poland, Romania). The fixed vs. floating exchange rate countries followed very different paths of real exchange rate adjustments during the recent financial crisis with the floaters undergoing sharp depreciations ().

***Export developments and export structure*:** Apart from the transmission of the international crisis through financial markets, we have the second transmission channel which is through trade and particularly through the fall of demand in export markets. The impact of this fall in demand upon individual EU10 economies depends upon

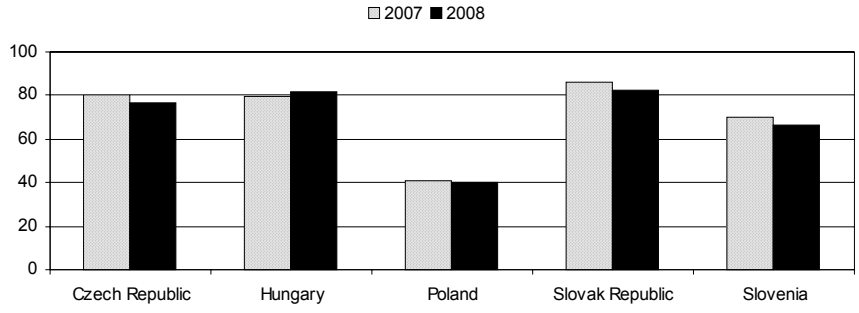
- the overall degree of export dependence
- the orientation towards particular markets, and
- export composition.

We examine these issues in the following section.

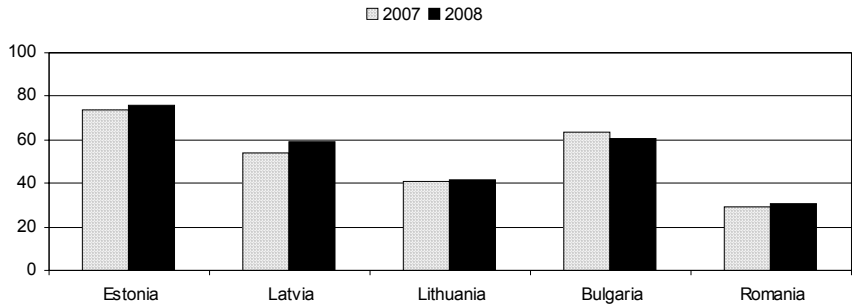
3. Export developments and export prospects of the EU10

The EU10 differ in all the above three aspects enumerated above. Exports (of goods and services) account for between 40% and 80% of GDP (Figure 46 which depicts the share of exports in GDP[3]). The countries in which exports account for the highest shares are the Czech Republic, Hungary, Slovakia and Estonia, with Romania, Poland (mostly because their relative size) and – surprisingly – Lithuania having very low shares. Hence this is the first aspect to take into account when examining the impact of a decline in export demand upon domestic economic activity.

Figure 46. Exports of goods and services in % of GDP, 1996-2008



[3] Notice that while this ratio is customarily used, it is not without problems as GDP is a value added concept while export is a gross production concept (i.e. includes the value of intermediate inputs) and, furthermore, exports include – in the case of Figure 46 – re-exports. Both these two aspects lead, particularly in a small country-large country comparison, to distortions.



Source: WIIW Annual Database

The second aspect concerns the composition of markets to which the EU10 customarily export. Germany is the overwhelming export destination for the Czech Republic (31% of goods exports in 2007), Hungary (28%), Poland (26%), Slovakia (22%), while Bulgaria, Romania, Slovenia have very significant exports also to Italy (Bulgaria to Turkey), and the Baltic countries export a lot to each other and also to Russia, and neighboring Scandinavian countries. Hence the relative downturns of the main trading partners will affect the export decline in the different EU10. Table 10 presents calculations of the relative GDP declines in the export markets of the different EU10 based upon the GDP projections – taken from the IMF – and applying as weights the 2007 shares of different markets in the different EU10 exports. GDP declines in the main export markets range from –3.7% in 2007 for Bulgaria to -6.1% for Latvia. The differentiation is entirely due to the trade weights; e.g. the high values for the Baltic countries reflect the high trade integration with each other.

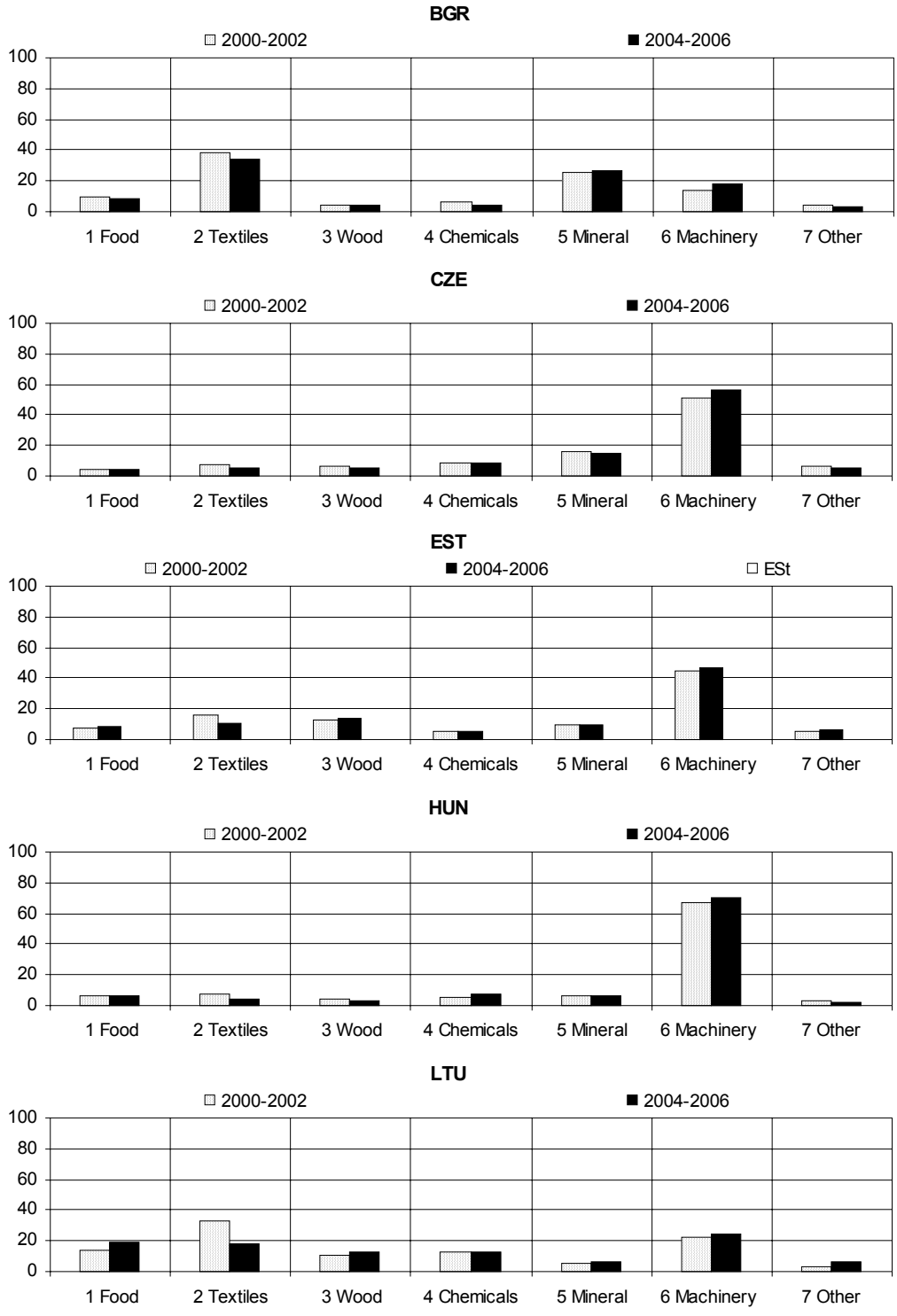
Table 10. Trade weighted growth of exports markets

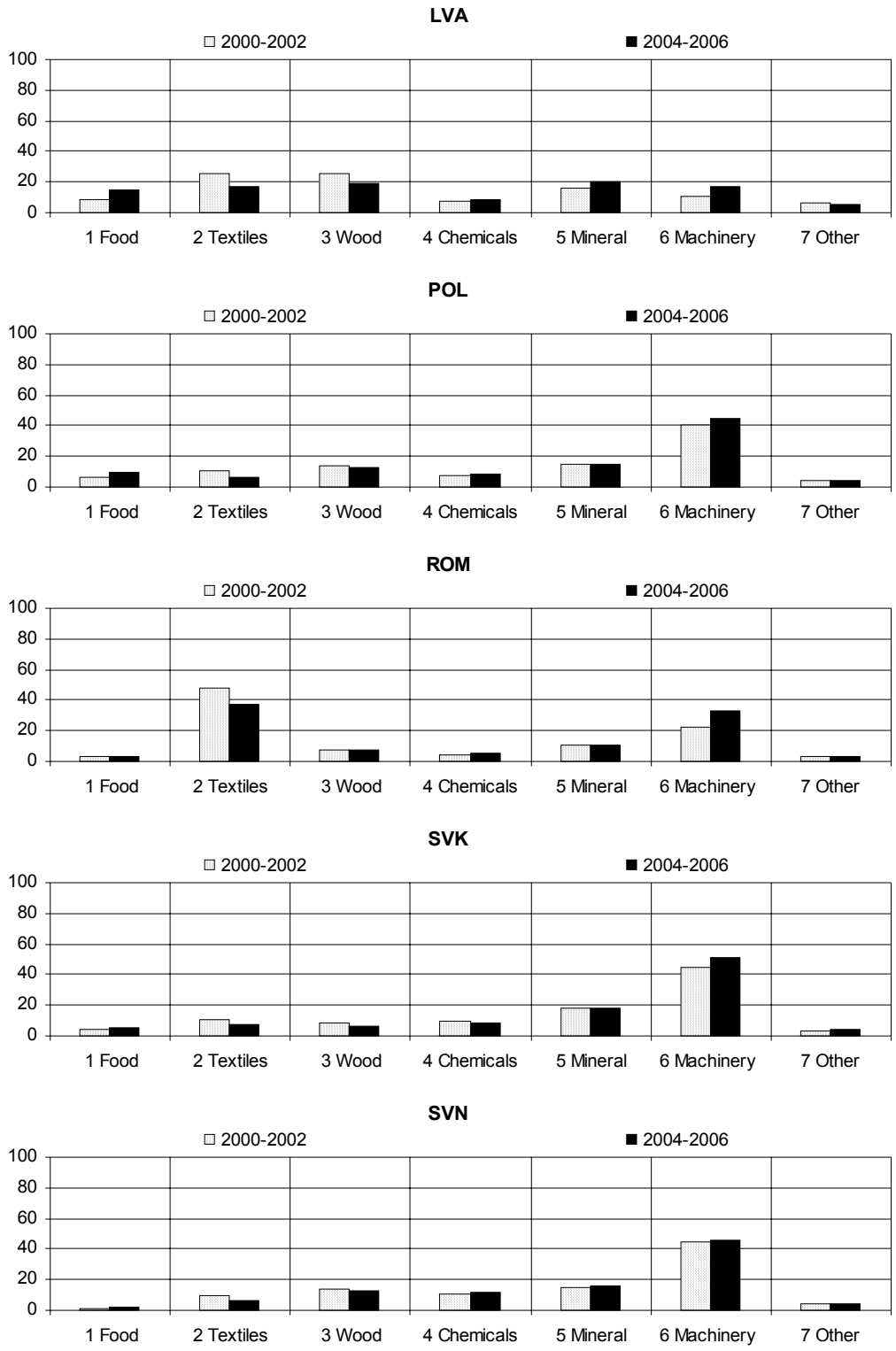
	2009	2010
Bulgaria	-3,686	0,039
Estonia	-4,974	-0,264
Czech Republic	-4,014	-0,109
Hungary	-4,216	-0,161
Latvia	-6,056	-0,550
Lithuania	-5,656	-0,176
Poland	-4,494	-0,208
Romania	-4,074	-0,157
Slovak Republic	-3,929	-0,177
Slovenia	-4,022	-0,139

Source: WIIW calculations; IMF for GDP of trading partners.

The third aspect to be taken into account when evaluating export prospects in the current crisis is the commodity composition of exports. Figure 47 reveals substantial differences in the composition of exports across the EU10: there are three economies which stick out with a very heavy dependence of trade upon the exports of motor vehicles plus parts; these are Hungary, the Czech Republic and Slovakia where these product categories account for 20% or over of total goods exports to the EU-25 over the period 2004-06. Figure 47 also shows that the group of engineering industries (the group includes machinery, electrical goods and transport equipment) accounts in these countries for 55-65% of goods exports to the EU-25, with shares above 40% also in Estonia, Poland and Slovenia. This was pointed out in the past as a favorable aspect of these economies' export structures as this group of industries is classified as skill- and technology-intensive (see also Figure 48). In the context of the current global crisis, it is however precisely this group of industries which is most heavily affected by falling investment demands and the difficulty of access to credit (which affects household purchases of durable consumer goods such as motor vehicles). In an interesting piece, J. Francois and J. Woerz (2009) show that the decline of global trade is closely linked to the sharp drop in the demand for capital goods and vehicles. Hence the above group of economies, heavy producers of machinery, transport equipment or components of these were very heavily affected by the recent economic downturn.

Figure 47. Export structure in manufacturing, EU10 countries, Exports to EU-25

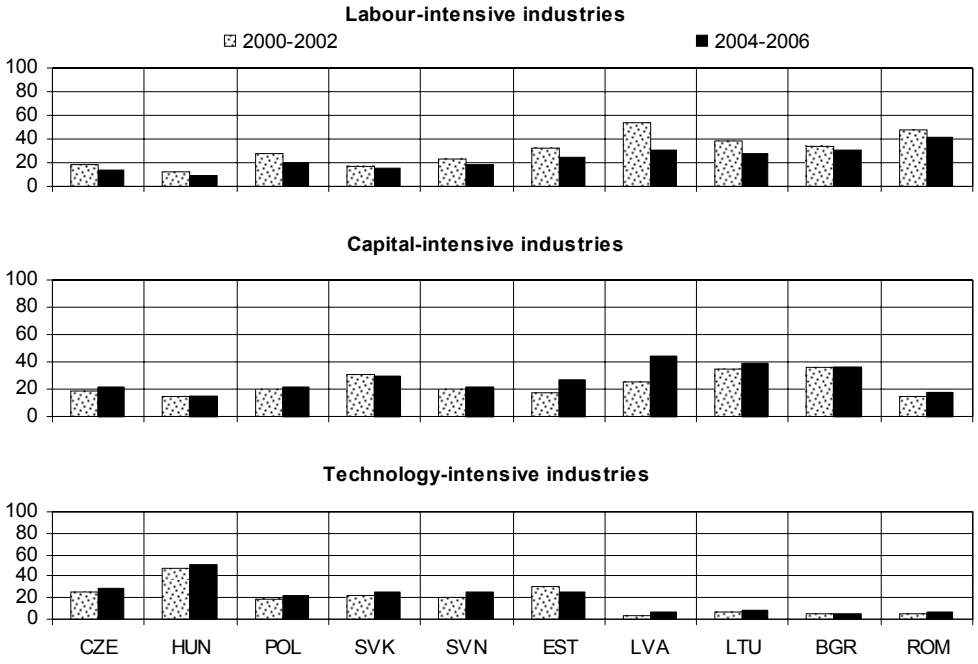




Legend: 0 Total, 1 Food, 2 Text/Clothing/Leather/Footwear, 3 Wood/Pulp/Paper, 4 Chemicals and Rubber, 5 Mineral and metal products, 6 Machinery/Electrical equip./Transport equip., 7 Other

Source: WITS database, wiiw calculations.

Figure 48. Exports of EU10 to EU-25, 2000-02, 2004-06 by industry groupings, average shares



Source: COMEXT, wiiw calculations.

Adding one final point on the issue of export structure, in this particular crisis it is not necessarily the degree of export concentration, , which leads to the strongest impact of the 'external shock' of falling global demand, but the nature of export specialization at least in the case of the EU10[4] (see Table 11 which depicts the shares of the 5, 10 and 15 most important export products in total exports).

Table 11. Export structure – shares of top 3, 10, 15 industries (%), 2004-2006

EU10	BGR	CZE	EST	HUN	LVA	LTU	POL	ROM	SVL	SVN
Top 3	44.7	25.7	29.7	35.5	52.3	40.6	26.9	37.2	28.9	28.6
Top 10	65.3	49.3	57.2	59.4	69.8	63.5	49.6	61.7	56.1	55.0
Top 15	72.7	61.5	66.7	68.9	76.3	71.4	60.0	71.4	67.0	66.7

Source: WITS Database; own calculations.

Note: EU10 Exports to EU-25

4. Putting the picture together on trade and prospects

The above analysis has shown that in the immediate aftermath of the outbreak of the crisis, countries which had a strong export specialization towards capital goods and motor vehicles (and parts and accessories to these) were particularly vulnerable to the impact which the global crisis had upon falling global international trade. This has affected particularly those economies which had built up a strong specialization in these latter products in the period prior to the crisis (see Annex).

[4] In the case of Ukraine, Russia and other economies which rely heavily on commodity exports or their direct processing, lack of export diversification is definitely a problem in the current crisis. See also Landesmann (2008).

The falls in industrial production and in GDP are a function of all the factors discussed in section 2 and hence we can see a difference in the recent developments and forecasts for export growth, on the one hand, and that of industrial production and of GDP growth, on the other hand. It is clear, for example, that the much sharper reductions in GDP forecasts of the Baltic countries have mostly to do with the legacy of very high current account deficits and their inability to deal with the necessary adjustment through anything else but a very dramatic decline in the level of economic activity (given their fixed currency regime). For countries like the Czech Republic and Slovakia, on the other hand, it is the impact through the strong export specialisation on transport equipment and capital goods which accounts for the transmission of the crisis.

Going forward, it seems that the EU10 will have little possibility to rely on the recovery of domestic demand: household demand will suffer from the decline in real incomes and the ongoing process of de-leveraging (which is more severe in some countries than in others). Similarly domestic investment activity suffers from the credit slowdown, the decline in domestic demand and sharp reductions in FDI activity. Finally fiscal expansion will be severely limited through the difficulty of EU10 governments to access debt markets despite rather low public debt levels in almost all EU10 economies (except Hungary). Hence the main component of demand which EU10 will mostly have to rely upon to take them out of the recession will be a recovery of export markets.

Here the EU10 will be very differently positioned because of the different patterns with regard real exchange rate adjustment and hence the development of competitiveness in the course of the recession. The discrepancy between fixed and floating exchange rate economies could be striking if floating currencies do not appreciate again in real terms and relative prices turn out to be an important factor for competitiveness during the recovery phase. Under such a scenario fixed exchange rate economies will be much worse placed to benefit from a recovery of the main export destinations when such a recovery takes place.

In the view of the author, the countries which undergo substantial real devaluations in the course of the crisis will be well placed not only to react to external recovery with favorable net export growth but will also have re-established their positions as attractors to foreign direct investment. Their export structure had over the previous decade undergone impressive qualitative up-grading even though the vulnerability of some aspects of that structure became visible during the downturn (strong linkage to cross-European production networks, strong presence in investment goods sectors). We expect these countries to recover well together with Western European recovery.

The economies which strongly maintain their fixed currency regimes during the crisis (some of them by necessity being members of the EMU) will have a much more difficult task to recover. Not only have they missed out on real devaluations (although some countries have moved on a course of strong internal wage declines) to strengthen their competitiveness, but they had also been in most instances the countries with strong growth in private sector indebtedness in the years before the crisis (the markets wrongly discounting any currency or default risk) and they are suffering from much stronger processes of de-leveraging.

References:

V. Gligorov and M. Landesmann (2009) The Crisis in Eastern Europe. What is to be Done? wiiw Policy Note on the Crisis; see also http://www.voxeu.org/; March 2009.

V. Gligorov and M. Landesmann: G20 and Emerging Emerging Europe: Is there anything left for the EU to do? wiiw Policy Note on the Crisis; http://publications.wiiw.ac.at/; April 2009.

M. Landesmann (2008): International Trade and Economic Diversification: Patterns and Policies in the Transition Economies; Research Report 350, The Vienna Institute for International Economic Studies (wiiw), Vienna.

J. Francois and J. Woerz: The big drop. Trade and the Great Recession; vox entry, see: http://www.voxeu.org/; May 2009.

Annex 1

Figure A1. 1 .Exchange rates*, 2007-2008, EUR per NCU, Jan 2007=100

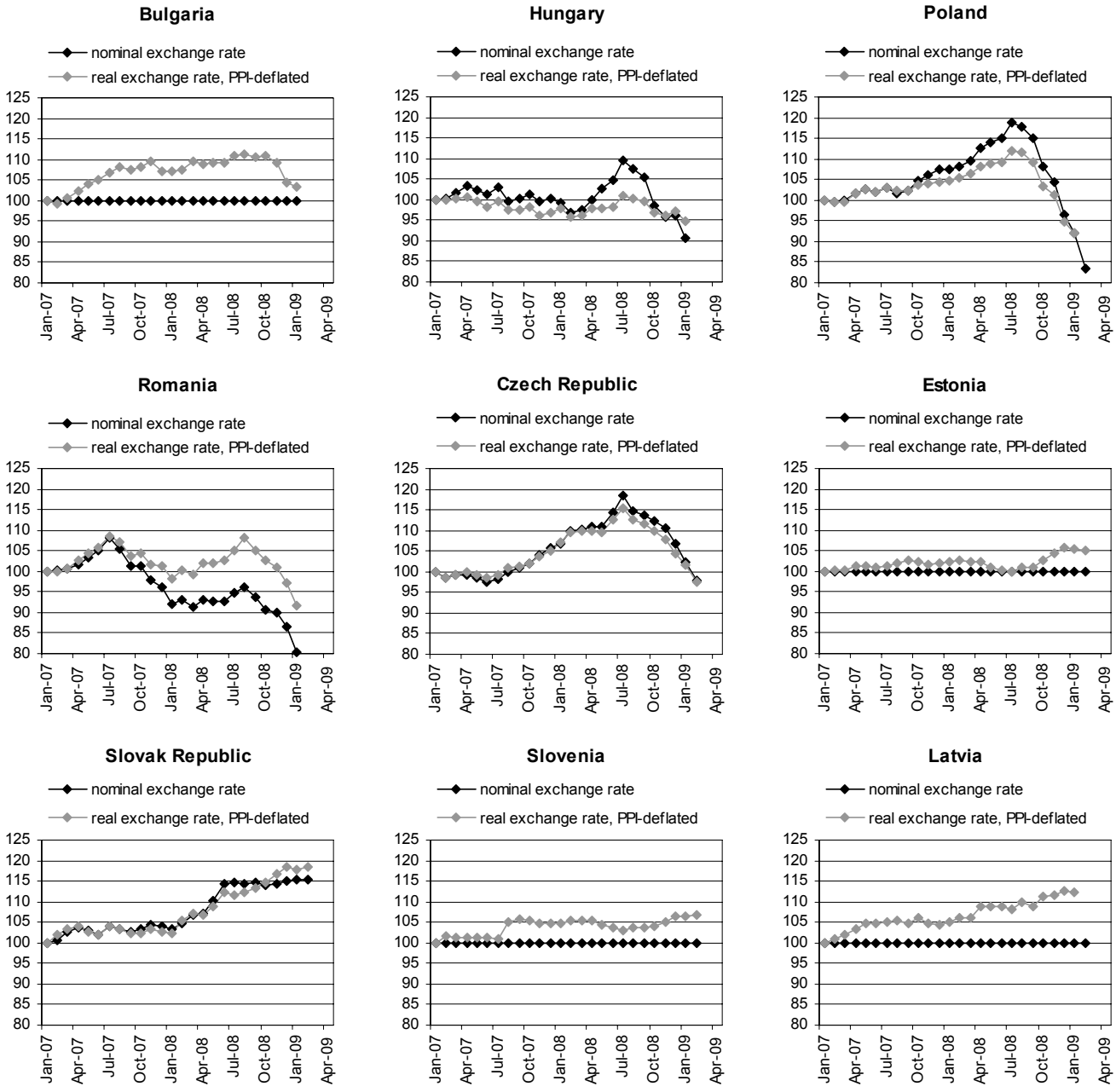
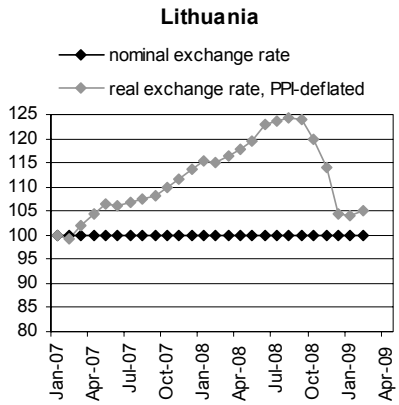


Figure A1. 1 .Exchange rates*, 2007-2008, EUR per NCU, Jan 2007=100



**Values over 100 indicate appreciation relative to January 2007.*

Source: wiiw Monthly Database incorporating national statistics.

Table A1. 1. Trade developments in EU10

Customs statistics		2007	2008	2008 4th Q	2009 1st Q	2007	2008	2008 4th Q	2009 1st Q
		mio €				Compared to previous year. in %			
EU10	Exports	395322	438535	11045	.	17,3	10,9	-9,4	.
	Imports	457418	507784	19032	.	19,1	11,0	-6,6	.
Bulgaria	Exports	13512	15278	3313	1690	15,0	13,1	-10,0	-27,4
	Imports	21862	25334	5982	2519	41,7	15,9	-4,8	-32,3
Estonia	Exports	8036	8401	2053	969	4,1	4,5	-2,1	-26,5
	Imports	11427	10877	2597	1133	6,7	-4,8	-11,8	-35,5
Lithuania	Exports	6062	6862	1455	.	23,7	13,2	-6,2	.
	Imports	11180	10898	2498	.	21,6	-2,5	-12,1	.
Latvia	Exports	12509	16067	3613	1814	11,1	28,4	13,1	-21,8
	Imports	17813	21024	4542	1937	15,4	18,0	-1,7	-41,0
Poland	Exports	102259	114252	24283	13654	15,9	11,7	-11,9	-28,5
	Imports	120912	138890	30792	15184	19,6	14,9	-7,4	-31,7
Romania	Exports	29543	33582	7732	3992	14,3	13,7	-2,4	-26,0
	Imports	51305	56245	13050	5366	25,9	9,6	-10,9	-36,2
Slovakia	Exports	42445	48243	11459	5797	27,3	13,7	-1,8	-24,8
	Imports	43939	49816	11908	5877	23,1	13,4	-1,8	-23,3
Slovenia	Exports	21964	23188	4510	2456	18,7	5,6	-8,9	-25,3
	Imports	23027	25136	5387	2579	19,8	9,2	-6,1	-30,2
Czech Rep	Exports	89382	99431	22336	11911	18,2	11,2	-8,7	-28,9
	Imports	86224	96195	22969	11474	16,2	11,6	-3,4	-27,3
Hungary	Exports	69004	72838	16581	13843	17,1	5,6	-10,2	-26,4
	Imports	69124	72997	16700	13233	12,7	5,6	-9,1	-28,5

Source : WIIW staff calculations.

EU10 May 2009

In Focus: Increased Country Differentiation – Evidence from High Frequency Spread Data*

Financial markets appear to be differentiating heavily across countries within a region and, in relative terms (i.e., the direction of change within each region, not levels), also across regions. It suffices to compare the changes in spreads across EMEs within any one region—country EMBI spreads have increased sharply, but some appear to have done so more than others.

A formal assessment requires decomposing spreads into global, group-specific, and country-specific factors. A global factor model is well-suited for this; these models have been used to look at co-movements in output (Stockman, 1998) and stock returns (Brooks and Catão, 2000).

The main conclusions emerging from this analysis are:

- Although EMEs are facing a reassessment of risk, markets appear to be differentiating across countries in any one region—and this is also the case among new EU members.
- Changes in rankings of country-specific spreads within a region have been quite significant.

The Global Factor Model

The global factor model is estimated using cross-sectional and constrained OLS with daily data for forty EMEs. Spreads for each time period are regressed on a constant term (or global component) and a set of group-specific regional dummies; together, these two regressors represent the common factors determining EMBI spreads. The residuals in the estimation are considered to be idiosyncratic and country-specific. It is important to highlight that we do not attempt to explain these residuals—the only goal is to identify differences (if any) across countries in a region. In particular, our main interest is to assess how these differences have become more or less important after the collapse of Lehman Brothers back in September 2008.

The estimated model is given by

$$s_{it} = \alpha_t + \sum \beta_{jt} d_j + e_{it} \qquad \text{for all } j,$$

where s is the bond spread for country i at time t, α represents the global effect at each date, d is the group-specific dummy where j represents each group, and e is a vector of residuals. Instead of dropping one of the regional dummies (a full set of dummy variables would be perfectly collinear with the constant term), the coefficients on these dummies are constrained to sum to zero in each time period. This does not affect the results, but allows us to interpret the regional—group-specific—component as the performance relative to the global average.[5] The group-specific factors are represented by four regional dummies—LAC, new EU member

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* Prepared by Juan Zalduendo, Lead Economist, Office of the Chief Economist, Europe and Central Asia Region, World Bank (jzalduendo@worldbank.org). I wish to acknowledge insightful comments received from Kaspar Richter and Swati Ghosh, and thank Naotaka Sugawara for comments received during the preparation of this note and superb research assistance.

[5] The use of regional dummies is quite common in the empirical literature on spreads determinants, which finds that LAC countries typically have a positive regional coefficient while new EU member countries have a negative coefficient. It follows work by Eichengreen and Mody, 1998, "What Explains Changing Spreads on Emerging-Market Debt: Fundamentals or Market Sentiment?" NBER Working Paper 6408 (Cambridge, MA: National Bureau of Economic Research), and International Monetary Fund, 2007, "Fund Financial Support and Moral Hazard—Analytics and Empirics," IMF, http://www.imf.org/external/np/pp/eng/2007/030207.pdf.

states, other countries in Europe and Central Asia, and a dummy for all other EMEs.[6] Since some countries appear to have experienced sharper increases in spreads (e.g., Argentina perhaps owing to the existence of default holdouts), we minimize the effect of outliers in the estimation by normalizing the spreads data for each region (mean 0, standard deviation 1) and only then is the cross-sectional and constrained estimation carried out.[7]

What are the Main Results?

The results are quite informative:

1) Markets appear to be differentiating more across countries in any one region.

Figure 49 shows the results of the above estimation for three countries in Europe—Hungary, Poland and Ukraine. The results for the other new EU member states (and other EMEs) are shown in Figure Annex 1. The blue line (left axis) depicts the daily EMBI spreads over the period February 2008-April 2009. The black line (also right axis) represents global factors—the daily regression constant—affecting risk appetite for emerging market sovereign paper. The orange line (right axis) shows the common component for each country—the global as well as the group-specific spreads. The red line (right axis) reflects country-specific spreads; an increase in the red line suggests that country-specific factors increase spreads—over and above the role played by global and regional factors—whereas a decrease indicates that country-specific factors play a positive role in reducing EMBI spreads. The vertical dash line is the date on which Lehman Brothers collapsed (September 15, 2008).

- Latvia and Ukraine are experiencing sharp increases in country-specific spreads.

- It is also worth contrasting the special case of Hungary and Ukraine: spreads initially peaked in October for both countries but have behaved quite differently since an IMF-supported program was approved in each of these countries (Figure 49). Specifically, Hungary's country-specific spread came down whereas Ukraine's did so temporarily but has increased since to new highs.

- Other EMEs in the EU are also experiencing increases in these spreads, but have declined in recent months—e.g. Bulgaria and Estonia.

- It is also interesting that there is an increase in the volatility of country-specific spreads among new EU member states—within and across countries (Figure 50).[8]

It is worth remembering that country fundamentals need not change for markets to differentiate across countries. It suffices for these to be perceived differently after an event such as Lehman. More precisely, a reduced appetite for risk could lead to a reassessment of pre-existing country weaknesses, such as high current account imbalances, high private sector

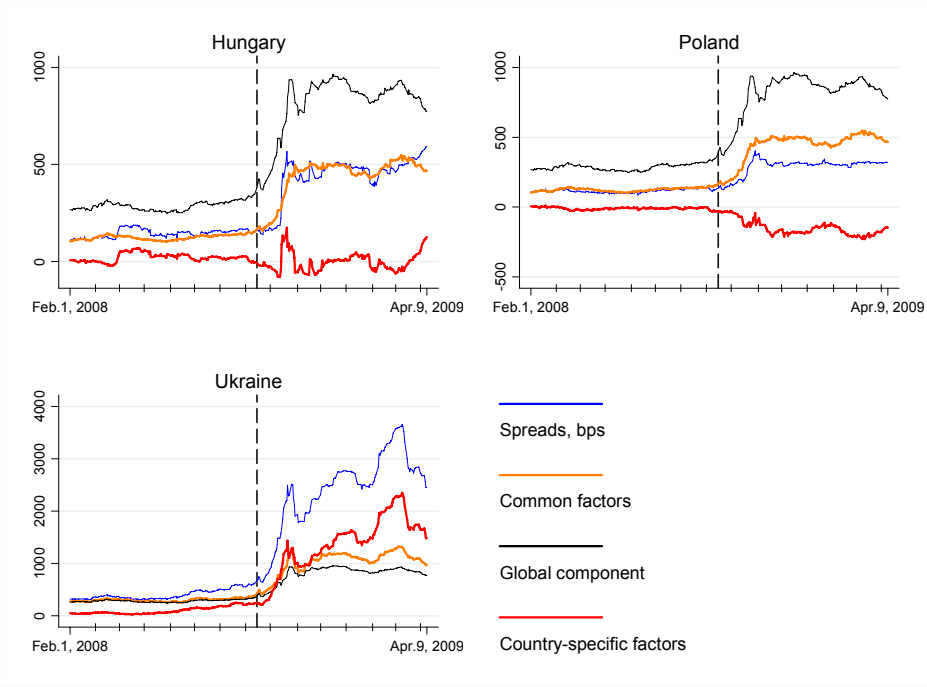
[6] The number of regions is limited to four; specifically, LAC (14 countries), new EU member states (9 countries), other countries in ECA (6 countries), and other countries (11 countries in Asia and Africa).

[7] This precludes the comparability across regions except for the direction of the observed changes; specifically, some regions are seeing group-specific spreads go up while others record a decline (in both cases relative to each region's period average. Nothing can be said about level differences across regions, however. The normalization affects the interpretation of regional effects (they should be viewed as relative to the region's average), but has only a scale effect on country-specific spreads.

[8] Across regions one can only discuss the direction in which any one group-specific factor is changing relative to an event in time; in our case the event warranting a before and after assessment is the collapse of Lehman. Future research will focus on identifying thresholds for economic indicators that might have led to increased country differentiation; on identifying the factors that play a role in the behavior of global, group-specific, and country-specific effects on spreads; and on examining changes (and determinants) of recent volatility in spreads. Goretti and Zalduendo (forthcoming) have carried out a grid search for the threshold of the debt-to-GDP ratio for which the dummy variables so created minimize the mean value of the root mean squared error of all regressions. Instead of having 4 dummies—one for each of the 4 specified regions—they have 2 groups: for example, high debt and low debt. The conclusions reached regarding individual countries are broadly similar.

credit growth, excessive dependence on external financing, and balance sheet factors—from solvency concerns (debt-to-GDP ratios) to indicators of foreign exchange liquidity (short-term debt-to-reserves).[9] These risks were already present, but investors are only now starting to charge a premium for "bad" characteristics. But investors might also be incorporating in their pricing the real effects of the crisis. For instance, the degree of product and trade integration to Western Europe among new EU member states might have led to a re-assessment of country risk within this region on account of the effects of the crisis on the real economy.

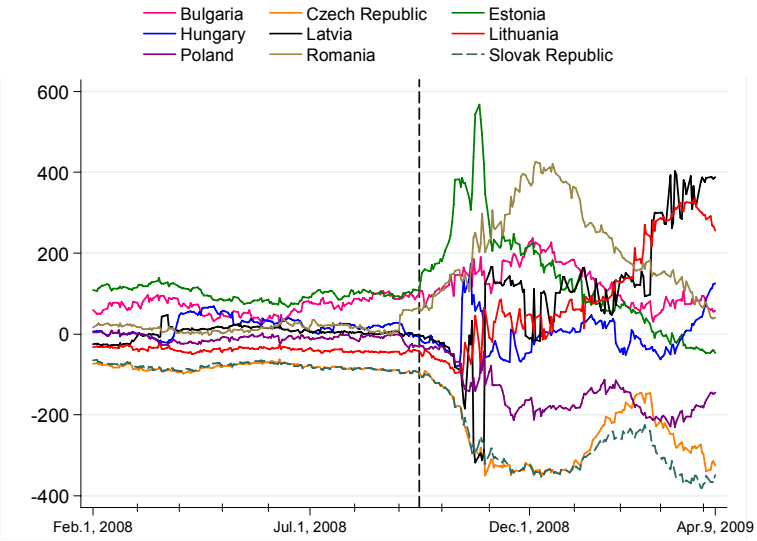
Figure 49. Decomposition of Spreads—Global, Common, and Country-Specific Components



Source: World Bank Staff calculations

Note: Dash line in each panel depicts the date on which Lehman Brothers collapsed.

Figure 50. Country-Specific Components in New EU Member States



Source: World Bank Staff calculations.

2) Changes in rankings in country-specific effects on spreads within a region have been quite significant.

Table 12 presents the ranking of country-specific components in February 2008 and in April 2009: significant changes have occurred among countries (e.g., countries in the Baltics).[10] Also worth noting is that the global component (black line; both in Figure 49 and the figure in the annex) has experienced a shift when spreads were re-priced and now hovers at a new level and with what appears to be increased volatility than before Lehman—markets remain unsettled.

Table 12. Country-Specific Rankings (for new EU member states only) 1/

	Country-specific spread (CSS)	
	Beginning	End
High CSS	Estonia	Latvia
↑	Bulgaria	Lithuania
	Romania	Hungary
	Hungary	Bulgaria
	Poland	Romania
	Latvia	Estonia
↓	Lithuania	Poland
Low CSS	Slovak Rep.	Slovak Rep.
	Czech Rep.	Czech Rep.

1/ Based on beginning and end data for the February 2008–April 2009 period.

Source: World Bank Staff calculations.

Concluding Remarks

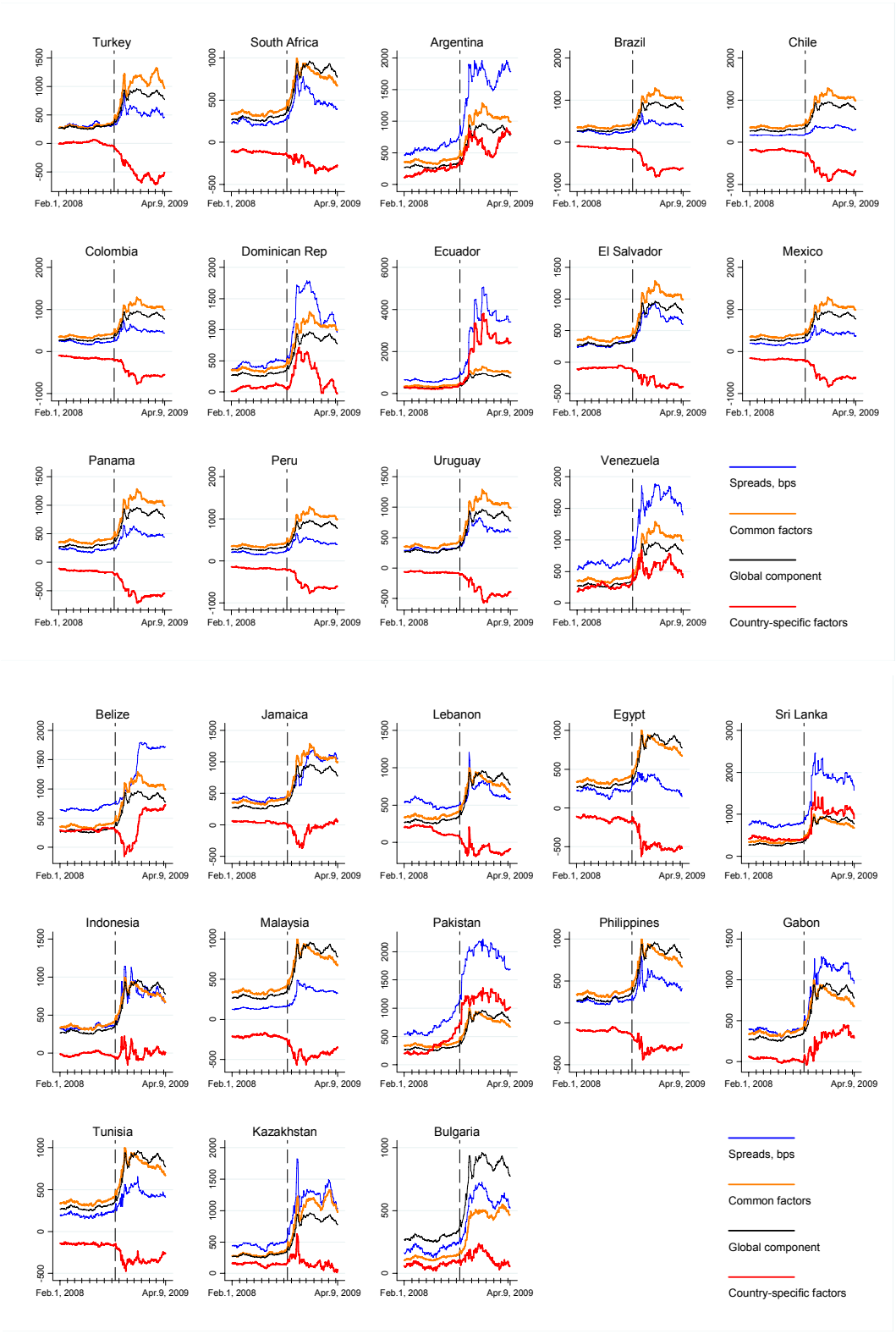
Evidence from EMBI spreads suggests that there is more variability in market perceptions about risk after the Lehman Brothers collapse. In particular, some ECA countries are experiencing an

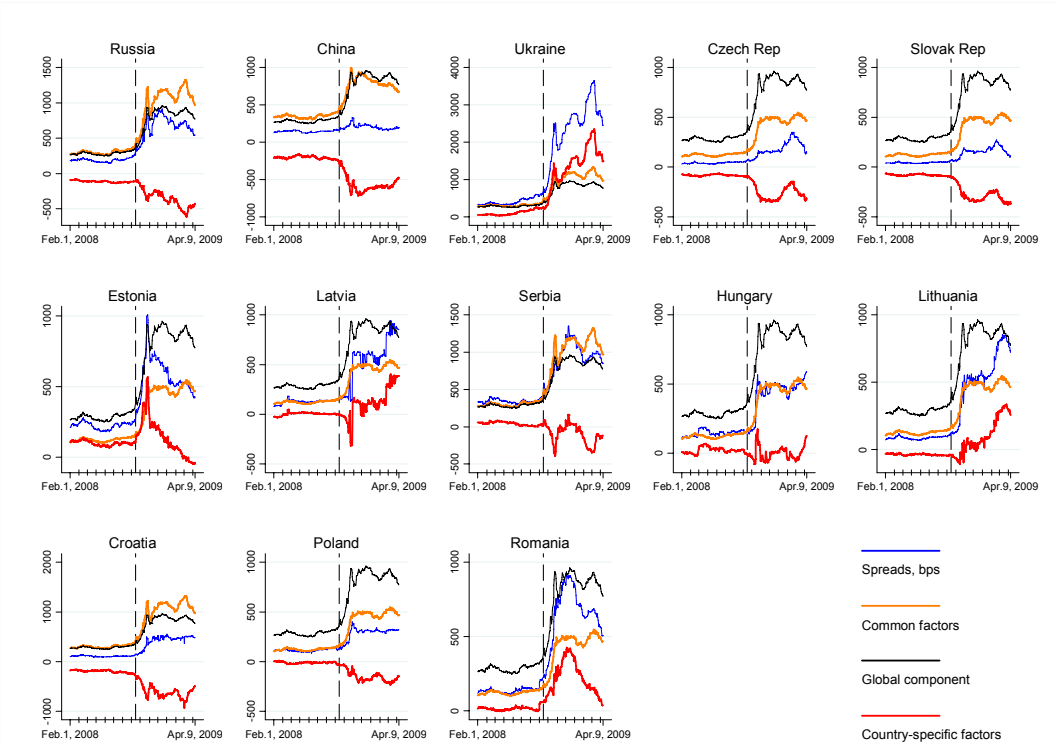
[10] Other changes are worth noting; Argentina's country-specific spread is always above zero and increases further after Lehman (see Appendix Figure 1); Chile's country-specific spread is always below zero and has now declined further; and Lithuania's was below zero before Lehman and above (and increasing) after.

increase in risk premium that exceeds what would be explained by global and regional factors. In other words, country-specific spreads have increased. But other ECA countries—including some new EU members—are experiencing increases in spreads that could be considered normal in an environment with less risk appetite. Poland, Czech Republic, and other new EU member states are in this group. In fact, their country-specific spreads have declined. But even these countries should not be complacent: these are times for countries to strongly signal why they should be viewed—and continue to be viewed—differently than their neighbors. If contagion spreads, then current differentiation might prove short-lived. For the time being, however, there appears to be significant differentiation across countries.

Annex 2

Figure A2. 1





Source: World Bank Staff calculations.

EU10 May 2009

In Focus: Cross-Border Bank Funding*

In the context of the current global financial crisis and investor concerns about some parent banks' solvency, ongoing commitment to subsidiaries and branches in the region has been questioned.[11] The concern is that foreign banks could retrench 'en masse' from the region, with severe implications for economic growth and possibly financial stability. This note examines the evidence to date.

The main conclusions emerging from this analysis are:

- There is some evidence of foreign bank retrenchment in aggregate from Central and Eastern Europe.
- But a closer look at the data suggests a more nuanced picture. In many countries flows continued to be positive, and in some cases have recovered from earlier troughs.
- An analysis of local banks' maturity structure of external debts also fails to indicate across the board rollover problems, but does suggest, in some cases, a shortening of maturities and hence possibly higher liquidity risks in the future.

Financial integration between 'old' and 'new' EU member states has deepened significantly over the past ten years. Foreign bank claims (mainly from other EU countries) are worth roughly 50% to 160% of GDP in respective EU 10 countries. And the same exposures are also quite significant for some 'old' member states (Figure 51). Many banks in the EU 10 are financing large segments of domestic credit by borrowing from their parent institution. This is often a bank incorporated in the EU 15.

Parent bank to subsidiary/branch bank funding is typically composed of equity, longer term deposits and short term credit lines. Parents also often facilitate subsidiaries' domestic or external funding by guaranteeing the issuance of bonds, buying the bonds or providing swap or other derivative facilities to hedge exposures or convert foreign or domestic currency funding. Anecdotal evidence suggests that deposits are mainly longer term, while credit lines are of short to very short duration. Bank liquidity may be managed centrally (at the parent) or locally (in the entities) or contain elements of both.

There is some evidence of foreign bank retrenchment from the EU10+1 region. Exposures of BIS reporting banks on banks in the region fell by roughly $600 million on average in the three months to December 2008 (Figure 52). While net exposure did not decline, this was because liabilities of BIS reporting banks to the region also contracted, as local banks reduced their foreign assets in view of funding shortfalls, and official reserves with Western banks declined. More timely and higher frequency data on local MFIs' external liabilities (to other MFIs) also indicate that external flows have been volatile, with renewed weaknesses occurring at the beginning of 2009 (Figure 53).[12]

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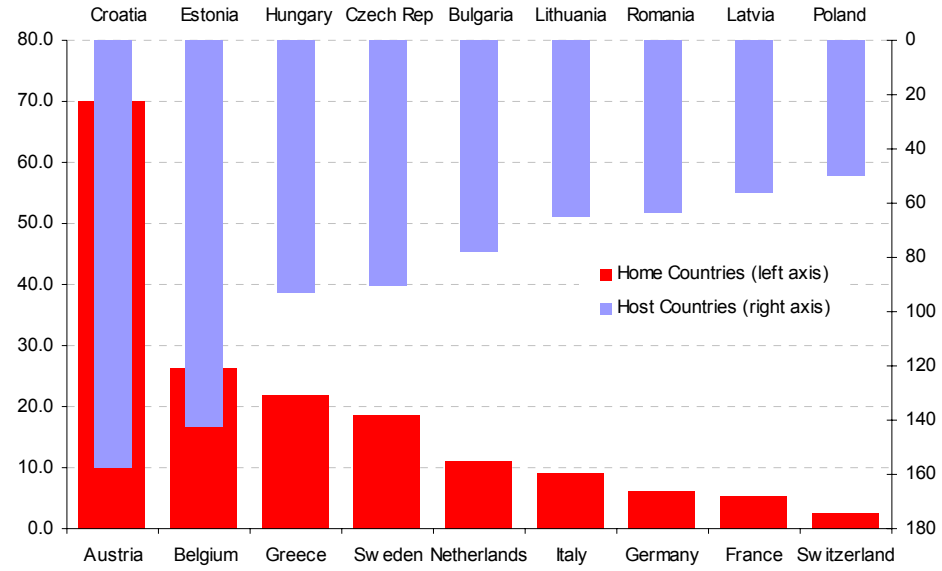
* Contributed by Valerie Herzberg (vherzberg@worldbank.org).

[11] Unlike a branch, a subsidiary is incorporated in the host country and has a separate legal identity. From an economic point of view, there is often very little difference in the functions performed - and the data presented here reflect this as both entities are covered – even though there are differences in regulatory treatment and in roles and responsibilities of home and host policymakers. These issues are not discussed in this note.

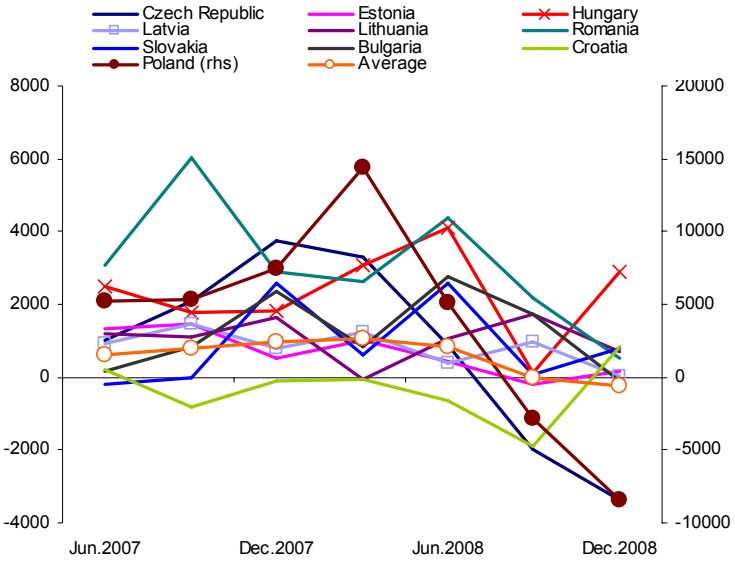
[12] In this note the term "bank" and "MFI" (Monetary and Financial Institution) are used interchangeably. MFIs include also savings and loans undertakings and money market funds.

Figure 51. Foreign bank claims of home and on host countries (end 2007), as % of GDP



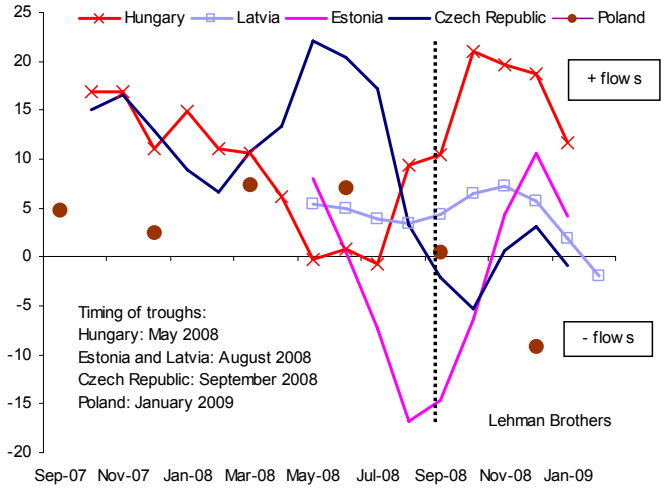
Source: IMF, World Bank Staff Calculations

Figure 52. Changes in external positions of BIS reporting banks vis a vis banks the EU10+1 region, mln USD (exchange-rate adjusted)



Source: BIS, World Bank Staff calculations.

Figure 53. 3-monthly average changes of MFI-MFI external liabilities, in percent

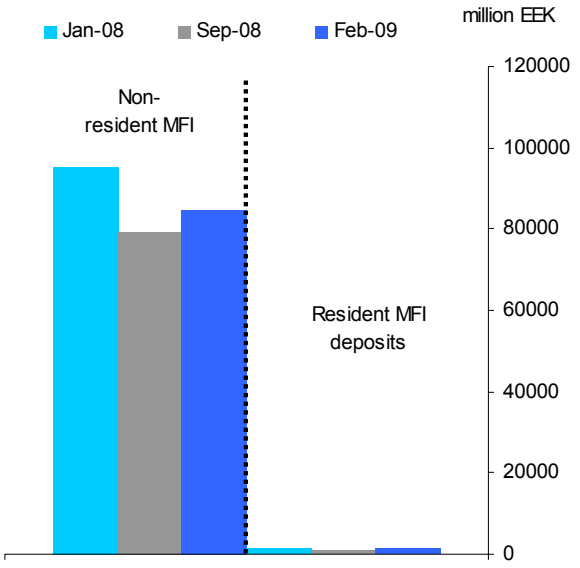


Note: In Hungary the data refer to banks' external "interbank loans", in Latvia to "external liabilities to MFIs", in Estonia to "deposits from non-resident credit institutions", in Poland to "loans from banks' direct investors", in the Czech Republic to non-resident "deposits and loans received from other credit institutions".

Source: National Central Bank, World Bank Staff calculations.

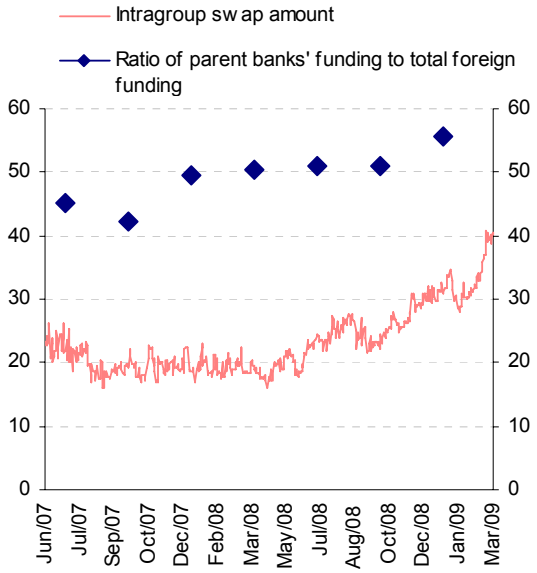
However a closer look at the data suggests a more nuanced picture. In many countries flows continued to be positive, and in some cases recovered from earlier troughs (Figure 52, Figure 53). In Estonia, deposits of foreign banks recovered at the end of 2008 after having contracted earlier in the year (Figure 54). In Hungary, too, the role of parent banks in satisfying increased FX liquidity and hedging needs – either through direct funding or as counterpart in intragroup swap transactions - increased over the last eight months (Figure 55).

Figure 54. Estonian commercial banks' resident and non-resident bank deposits



Source: National Central Bank

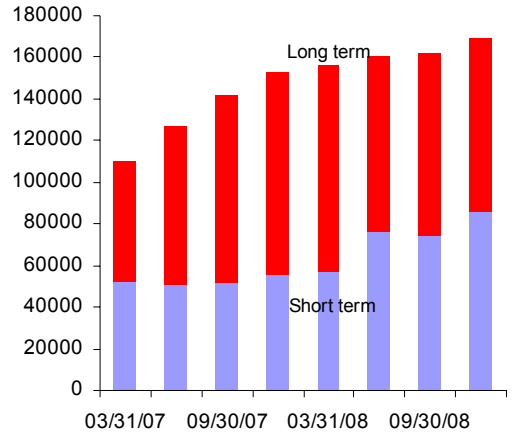
Figure 55. Foreign parent banks' funding and proportion of forint/foreign currency swap deals with banking group members - Hungary



Source: Report on Financial Stability - April 2009, MNB

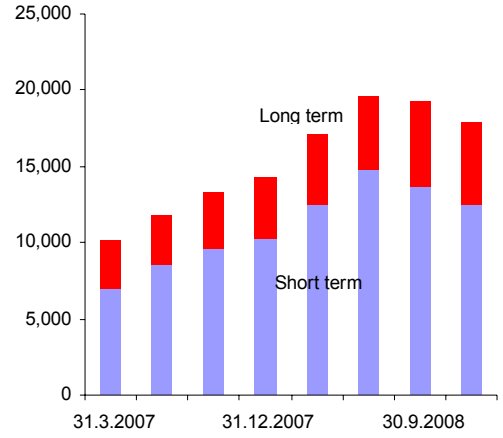
An analysis of local banks' maturity structure of external debts also fails to indicate across the board rollover problems, but does suggest in some cases a shortening of maturities and hence possibly higher liquidity risks in the future. For a given debt stock, the shorter the maturity of debt, the more debt requires renewal at a given point in time to maintain exposure. This increases liquidity risk. Indeed, in the Czech Republic, banks' short-term external debt has fallen sharply during 2008 accounting for all of the decline in overall banks' external debts. This could be indicative of rollover problems (Figure 57). But in many countries we observe instead a shortening of maturities. In Estonia, banks' balance sheet shifted from long-term towards more short-term external debt, while overall exposure was maintained (Figure 56). In Lithuania, too, the average maturity of banking sector liabilities has fallen, mainly on account of shortened liabilities vis a vis foreign banks.

Figure 56. Composition of banks' external debt – Estonia, EEK mln



Source: National Central Banks

Figure 57. Composition of banks' external debt – Czech Republic, EUR mln



Source: National Central Banks

This differentiated picture and the absence of a sudden stop in banking sector capital flows may have partly resulted from determined international and domestic policy responses. Hungary, Latvia and Romania arranged international financial support with the IMF, the EC and the World Bank in late 2008 and early 2009. In Latvia, funding will be enhanced by prospective bilateral loans from the Nordic countries. Poland and the IMF have agreed on access to a one year precautionary flexible credit line of around EUR20 billion. Various central banks, including the Riksbank, arranged foreign exchange swap arrangements with Latvijas Banka and Eesti Pank, others, such as the ECB, arranged repurchase agreements with a number of local central banks. These actions have helped to deal with short term liquidity pressures in the money and FX swap market. Finally, the World Bank, EIB and EBRD signed a joint action plan in support of the banking systems in Central and Eastern Europe. The aim is to develop SME facilities, provide banking sector guarantees and promote equity investments in local banking sectors. The total envelope for this is expected to reach close to EUR25 billion.

In Hungary, EUR6.9 billion of the EUR20 billion stand-by credit facility was disbursed in 2008 Q4. Respectively 30% each was used to finance the fiscal deficit and to support the local banking sector. The government introduced new money market instruments to improve banking sector liquidity and credit guarantee schemes to encourage lending to SMEs. Moreover, commitments with respect to fiscal consolidation were made (see fiscal section) which should improve the long-term solvency picture and thereby restore investor confidence – including the confidence of parent banks' shareholders.

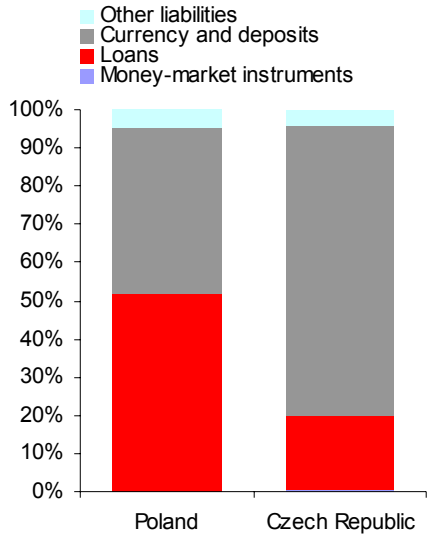
Foreign banks may also internalize the economy-wide effects of a sudden and sharp retrenchment. Exposure of the two main Swedish banks to the Baltic region is worth around 19% of Swedish GDP, its nearly 30% of Belgium GDP for one bank in Belgium and in Austria's case the exposure of a couple of banks to the region goes up to 70% of GDP (Figure 51).[13] In light of this, while foreign bank shareholders may be reluctant to finance new investments, it they have an interest in maintaining exposure and - if needed - to recapitalize banks. In Romania, major foreign banks with a market share of 90% of assets, indeed signed a statement in March 2009, underlining their commitment to their Romanian subsidiaries.

[13] See "Foreign Banks in the CESE Countries: In for a Penny, in for a Pound?", March 2008, IMF Working Paper WP/09/54.

But it remains to be seen how foreign banks will react to the deterioration of their portfolios in the EU10 countries, especially if expected losses were to increase further. 'A rush to the exits' represents a considerable risk for both home and host countries and highlights the necessity for constructive collaboration between policymakers in different EU countries. In April 2009, the Hungarian central bank projected the default probability of corporate and retail loans to rise to 13 and 20% in 2009 in its stress scenario, up from 5 and 12% in the baseline scenario. Under the stress scenario, half of the banks would need capital injections to exceed regulatory capital minima. It could be that once expected and unexpected losses exceed a certain threshold, foreign inventors may reconsider local debt rollovers- even if this amplifies the recession - in order to reduce their own losses.

Finally, it needs to be pointed out that the data under examination suffer from numerous limitations. More timely and comprehensive data are needed to ensure effective monitoring of banks' cross-border intragroup liquidity relationships. In the analysis, we have used quarterly BIS compilations on reporting banks' cross-border locational claims, individual countries' BOP data on the banking sectors' external debt stock, broken down by maturity and instrument, and more timely monthly aggregate balance sheet data of local banking sectors published by national central banks. In all cases, flows are being estimated through taking changes in stocks between two points in time. While the measures shown eliminate (to some degree) currency valuation effects, changes in the market price of securities and reclassification or write-offs of loans may distort the flow figures. Moreover, as the value of stocks is taken at the end of each period, the flow measures do not provide any information about changes during the period which could have been significant, notably on certain days of intense market pressure (e.g. during October 2008).

Figure 58. Composition of banks' external debt - Czech Republic and Poland



Source: National Central Banks

Moreover, classifications and groupings of the more timely and high frequency bank-to-bank exposures vary across countries, rendering comparisons somewhat more difficult. For Poland, the data in Figure 53 show external "intercompany loans of domestic banks", for Hungary "interbank loans", for the Czech Republic "deposits and loans received from other credit institutions". These differences could be relevant as different components of banks' external liabilities have been behaving differently and matter to different degree in banks' external accounts (Figure 58). Finally, some parent bank-subsidiary bank relationships may not be picked up by balance sheet data: parent banks may guarantee debt issues of subsidiaries or provide liquidity facilities that have not been tapped yet.

EU10 May 2009

In Focus: Household Indebtedness*

Following a rapid expansion in the credit to household, the global crisis has brought to the surface concerns about household solvency in the EU10. A closer look at the data reveals the following:

- Although the build-up of debt (mainly mortgages) has indeed been fast in the EU10, the resulting stocks of household debt remain low to moderate compared to Western Europe, and do not come anywhere close raising the types of concern that one would have, say, in Ireland.
- Risk arise nonetheless in some countries from the fact that indebtedness is often in foreign currency or at variable rates. Sharp adjustments in some real estate markets may also have undermined household net worth.
- Though banking sector may sufficiently resilient, the default risk is concentrated among poorer and younger households with weaker ties to the labor market.

1. Recent Developments

Household indebtedness has grown rapidly in recent years in the EU10. Between 2002 and 2007, for example, household debt relative to GDP grew at an annual average rate of 37 percent in the newer member countries of the EU, while rising only by 7 percent in the older EU member countries. The growth in household indebtedness follows the rapid expansion in credit to the private sector more generally.[14] It has been underpinned by buoyant housing markets, favorable macroeconomic and financial conditions and the increasing availability of a broad range of mortgage instruments. For the new EU member countries, it has also been suggested that the convergence in living standards toward the EU average has helped to accelerate credit growth.[15] Over this same period, household financial assets also grew rapidly, though not at the same pace as household indebtedness. As a result, the net financial position of the household sector has fallen.

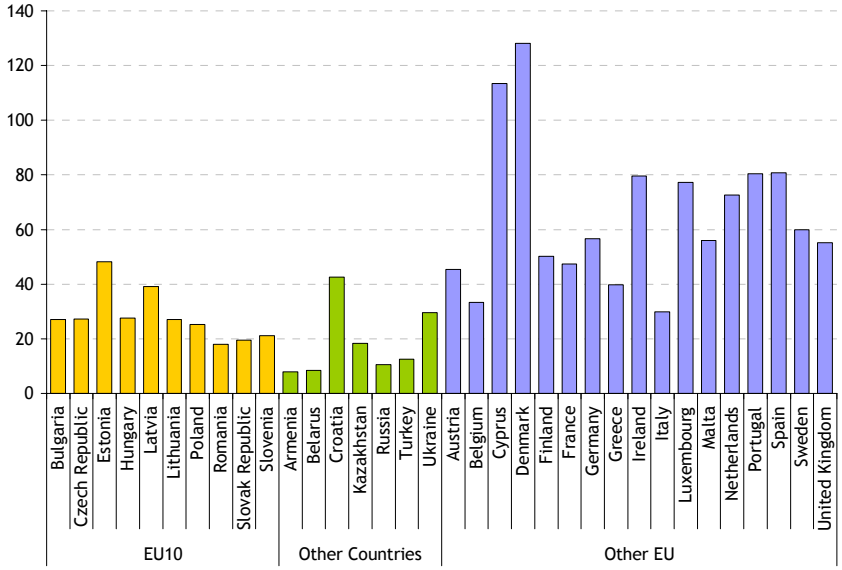
Household debt now represents just over a quarter of GDP in the EU10. (Figure 59) Though nontrivial, this level still lags considerably behind that in most of the older EU member countries, which on average is about 65 percent of GDP. Within the EU10, however, there is significant variation in aggregate household debt positions, both in their level and composition. Estonia is at the higher end of the distribution by magnitude, with household debt representing close to half of GDP.

* Contributed by Erwin Tiongson (etiongson@worldbank.org), Naotaka Sugawara (nsugawara@worldbank.org), and Ashley Taylor (ataylor2@worldbank.org). It is drawn from a forthcoming Regional Report on Eastern Europe and Central Asia, "Macro Risks and Micro Responses."

[14]See also "In Focus: Domestic Credit Developments" EU10 RER, February 2009.

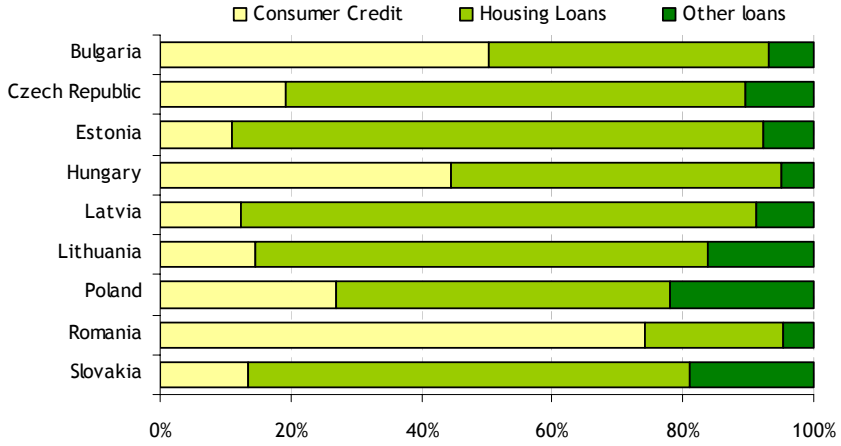
[15]OECD (2006), "Has the rise in debt made households more vulnerable?"

Figure 59. Household Debt, 2008 (% of GDP, end of period)



Source: European Central Bank; National Central Banks; IMF; and UniCredit.

Figure 60. The Composition of Household Debt in EU10, 2008



Source: European Central Bank.

Housing loans or mortgage debt generally represent the largest fraction of all household debt (Figure 60). On average, mortgage loans grew more rapidly than consumer loans and other types of household loans in the EU10, starting from a very low base (less than 2 percent of GDP on average in 2000). Some have suggested that government initiatives, such as construction or mortgage-related subsidy and tax schemes, have contributed to this growth. Currently, housing loans account for close to 60 percent of all household loans. However, there are some notable exceptions, such as Romania and Bulgaria, where consumer credit remains the primary form of household loans.

2. Household Indebtedness and Household Vulnerability

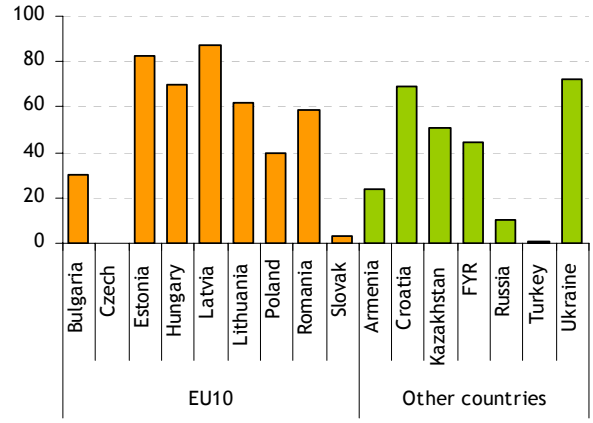
The welfare consequences of rising household indebtedness in the EU10 can be significant. Rising indebtedness reflects the benefits of financial sector development, allowing households to smooth their consumption over time and acquire home ownership without significant savings. On the other hand, rapidly growing household indebtedness and the exposure of the

financial sector to vulnerable households (or borrowers at risk) may have important consequences for financial stability. At the same time, the welfare and distributional implications for households themselves can be large, particularly in a worsening macroeconomic environment.

Some characteristics of household debt in the EU10 expose these households to a number of specific macroeconomic risks, as explained below.

First, a large share of household debt is denominated in foreign currencies (Figure 61) or is indexed to foreign currencies, exposing households to exchange rate risks to the extent that the currency composition of their assets, particularly their labor income flows, leaves them unhedged. Where foreign currency loans became popular in recent years, borrowers were typically obtaining loans in Euros and Swiss francs, attracted to relatively lower interest rates compared to loans denominated in local currency.[16] On the banks' side, at the height of the expansion in household credit, there appeared little interest in reducing their exposure to foreign currency-denominated loans because default rates were low and because of the ease of access, at the time, to foreign currency funding via wholesale markets or via Western European parent banks. Among households borrowing in foreign currency, however, there also seemed little awareness of their exposure to currency risks although in some countries a high share of foreign currency deposits provide some hedging of the currency risk. In any case, these developments in the EU10 mirror recent trends elsewhere, particularly in the middle-income CIS countries, where households also obtained loans denominated in US dollars and other foreign currencies.

Figure 61. Foreign Currency Denominated Loans 2008, percent of bank loans to households



Source: MNB and other National Central Banks.

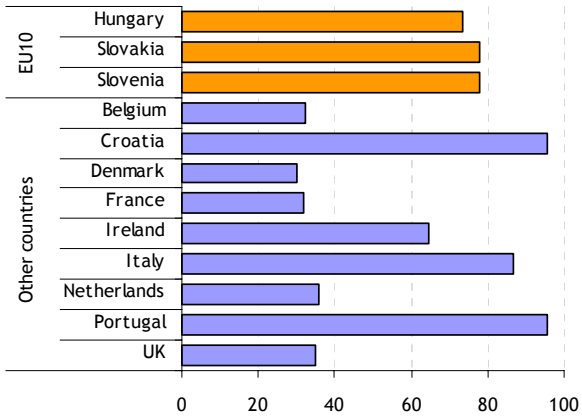
There is again considerable variation in the foreign currency exposures of household debt across countries. The Baltic countries are at the higher end of this distribution, with foreign currency-denominated loans accounting for over 80 percent of bank loans to households in Estonia and Latvia; the Czech and Slovak Republics are at the lower end, with little or no foreign currency-denominated household debt. Some have suggested that a few national policies may explain some of these differences across countries—such as more restricted eligibility requirements in 2004 for housing subsidies in Hungary (which then prompted households to substitute toward less expensive foreign currency loans) or strong emphasis on monitoring foreign exchange risk and lower domestic interest rates than in the euro area in the Czech Republic.[17]

[16] Rosenberg and Tirpák (2008) suggest that EU membership promotes borrowing in foreign currency *indirectly*, such as through capital account liberalization that then facilitates access to foreign funds. In addition, they also observe that EU membership seems associated with greater private sector confidence in the stability of the exchange rate and the eventual adoption of the euro.

[17] See Rosenberg and Tirpák (2008) for a brief survey of some of these policies. But the results of their analysis suggest that the observed cross-country differences is in large part explained by interest rate differentials.

Second, in some EU10 countries, mortgages with variable (adjustable) interest rates account for the largest share of lending, exposing households to interest rate shocks (Figure 62). In these countries, such variable interest rate mortgage debt represented over three-quarters of all mortgage debt, at least until recently, using available data. Households are vulnerable in a financial downturn, in the event that banks pass on a higher cost of credit to them. Domestic currency loans often adjust to the 3 or 6 months interbank rate which increased significantly due to the crisis. However, as shown in other countries' experiences, this may be mitigated to the extent that interest rate adjustments may be capped, as is the case, for example, in Denmark.

Figure 62. Mortgage Loans with Adjustable Interest Rates, 2006, percent of all housing loans



Source: IMF; OECD; and National Central Banks.

Increasing mortgage indebtedness has exposed a rising share of households to the recent changes in house price trends in many of the EU10 countries. For example, in Estonia and Latvia house prices fell in 2008 Q4 by around 8 percent and 34 percent year-on-year respectively compared with growth rates of 20 percent and 60 percent in 2007 Q1. Such price changes lead to redistributions of wealth between those long or short in housing stocks. These can then affect the distribution of consumption via direct wealth effects and via the impacts of changing collateral values on credit constraints. Indeed, household level analysis in the UK has found the largest elasticity of consumption with respect to housing prices in older homeowners with an insignificant elasticity for younger renters.[18]

3. Household Vulnerability: Emerging Results from Microeconomic Data

Microeconomic data can be a critical source of information on household indebtedness. Current assessments of the credit risks faced by the banking sector have been largely based on macroeconomic data. In general, little is known about household indebtedness based on household level data in the EU10. The debt profile could vary across household income groups and by type of loan, such as mortgage and non-mortgage. In principle, such microeconomic data and profiles allow for a closer monitoring of risks associated with selected household groups. Where household borrowing is limited, indicators based on average household indebtedness for all households as a whole mask the likely concentration of borrowing among selected households.

This note draws information from the databases of the EU-Statistics on Income and Living Conditions (EU-SILC), an annual household survey anchored in the European Statistical System that was first initiated in 2003, with the new EU member countries undertaking their first surveys in 2005. Data are typically made available to the general public two years after the survey, so that we currently have data through 2006 and data for both older and newer EU members for 2005 and 2006.[19] Among other variables, the EU-SILC collects information on the incidence of mortgage debt holding, interest payments, arrears on mortgage interest payments, disposable income, and others.

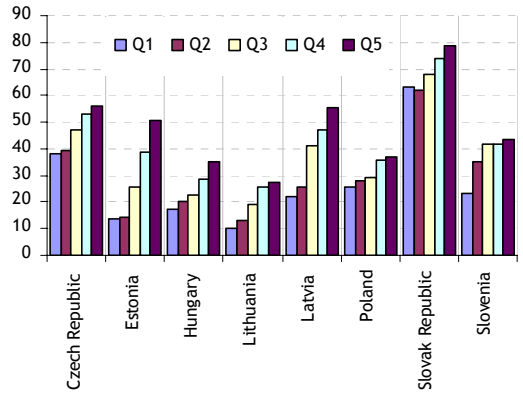
There are a few notable patterns in the EU-SILC data, suggesting potentially large welfare consequences during an economic downturn. These include patterns of household debt

[18] Campbell and Cocco (2008).
[19] The 2007 data had just become public available at the time of this writing.

holdings, including among those that are more vulnerable or less able to service their debt in a difficult economic environment.

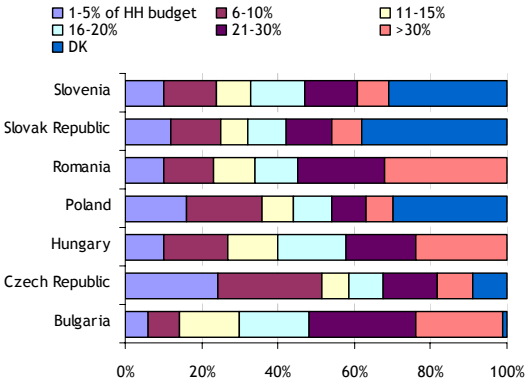
First, debt holdings rise with household income level but are spread across income quintiles, including the poorer households (Figure 63). In the Czech Republic, for example, over a third of households in the poorest quintile hold some debt, with debt rising to about 55 percent of households in the richest quintile. In addition, on average among EU10 countries, the share of mortgage holders across age groups first increases and then decreases with age, a pattern that is broadly consistent with the life cycle theory of consumer behavior. Taken together, these observations suggest that when macroeconomic shocks increase the financial burden due to mortgage debt it is the poorest households and the youngest households with weaker ties to the labor market who are among those most likely to suffer adverse shocks, in the absence of a savings buffer. The shocks can be channeled through income shocks, exchange rate shocks (if the mortgage is in foreign currency), or interest rate shocks (in case of variable-interest mortgages). If the mortgage payments represent a large share of a household's disposable income, a rising debt burden may curtail the household's ability to protect its welfare.

Figure 63. Household Debt Holding by Income Quintile, percent of households



Source: EU-SILC and World Bank staff estimates.

Figure 64. Household Income Used For Debt Repayments, percent of all households



Source: UniCredit Group.

Second, in some countries debt service is a significant share of income, particularly among the poor (Figure 64). In Hungary, for example, data from the EU-SILC suggest that mortgage interest payments among the poor represent close to 15 percent of their income. Similarly, a recent, independent survey for UniCredit Group indicates that for about 30 percent of all households, total household debt repayment absorbs more than a fifth of the household budget. Another 20 percent of households allocate 10-20 percent of their household budget to debt repayments.

Third, in some countries, mortgage interest payments take up a large share of income among the youngest and oldest workers. In Hungary, the youngest workers (age 35 and younger) allocate over a tenth of their disposable household income on mortgage interest payments. In Slovakia, interest payments as a share of disposable income fall and then rise with age, reaching close to 15 percent of income among those age 65 or older. Large debt service ratios are also observed among those employed in economic sectors that have experienced some of the sharpest downturns in recent months (such as in construction).

Existing stress tests using microeconomic data in fact suggests large welfare consequences of macroeconomic shocks transmitted via the household debt channel. A recent stress test in Hungary suggests that a simultaneous fall in employment and an interest rate shock would increase "risky loans" by 8-12 percentage points. **Though the banking sector is found to be**

resilient to these shocks, the default risk is concentrated among the poor households. A stress test in Poland suggests that unemployment shocks (compared to interest rate or exchange rate shocks) have the highest impact on probability of default. Modest increases in unemployment can increase the share of loans in default by over 5 percentage points.

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EU10 May 2009

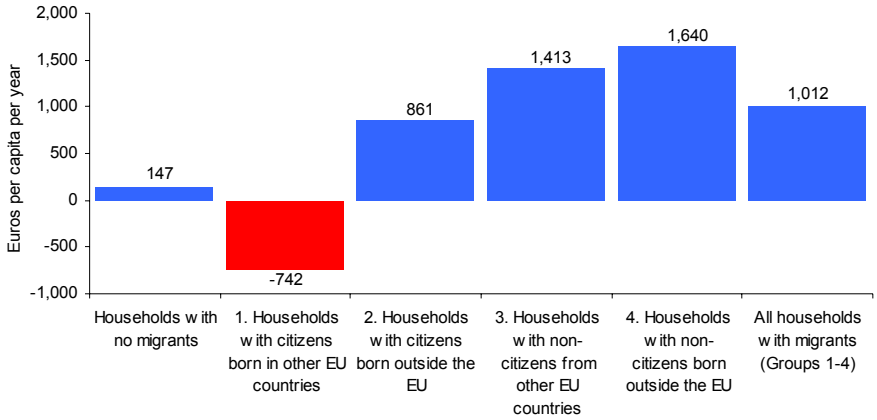
In Focus: Fiscal Impact of Migration*

Amidst concerns about rising unemployment in EU countries, the important contributions of migrant workers to host countries' economies risk being overlooked. Recent research by World Bank staff using the 2006 Survey of Income and Living Conditions (EU-SILC) data highlights that although they constitute a relatively small share of the respective domestic labor forces, migrants:

- make significant net positive contributions to the national tax and benefit systems of their host EU countries, and
- help to bring relevant skills to the labor market as well as contribute to alleviating the challenges of a rapidly aging population.[20]

New survey-based estimates shed light on an old question: do migrants impose a disproportionately large fiscal burden on receiving countries, either because they consume a relatively larger share of social benefits and services or because they make relatively small contributions to tax revenues than the country's non-migrant population? The new EU-SILC allows us to investigate this issue, as it provides comprehensive income data for all EU member countries, including information on taxes paid and benefits received. Using these data, "net taxes paid" — the difference between total taxes paid and total benefits received by household — can thus be calculated for different population subgroups. Using data on country of citizenship and birth, "migrant" households can be divided into four sub-groups: households with (i) citizens born in other EU countries, (ii) citizens born outside the EU, (iii) non-citizens from other EU countries, and (iv) non-citizens born outside the EU (Figure 65).

Figure 65. Migrant Households Tend to Pay Significantly Higher Net Taxes than Households with no Migrants



Source: World Bank Staff calculations based on 2006 EU-SILC data

The EU-SILC sample of observations for each of the EU13 countries is in general fairly large,[21] thereby permitting derivation of reliable results at a fairly high level of disaggregation from the

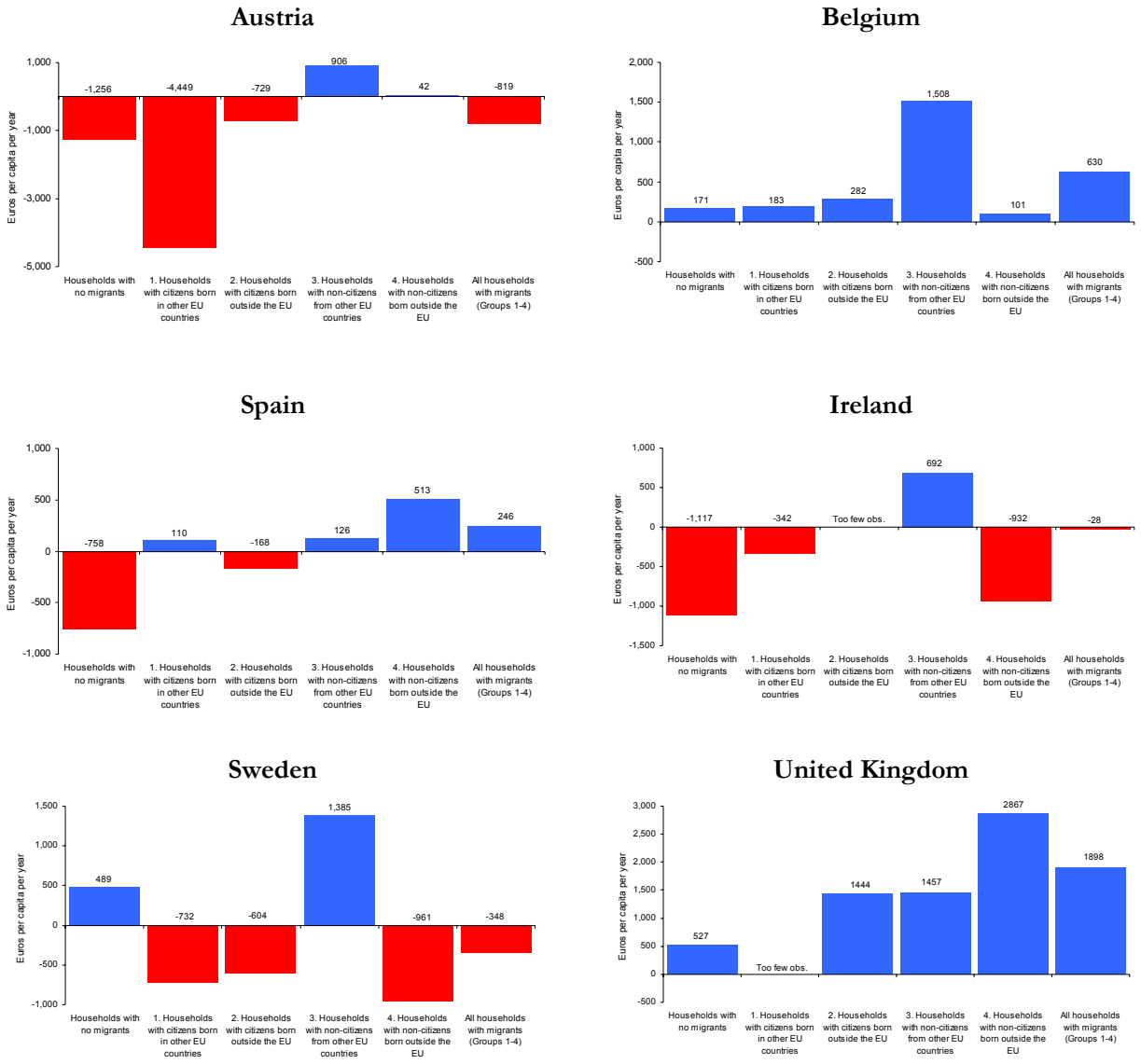
* Contributed by Salman Zaidi (szaidi@worldbank.org).

[20] This note draws on Luca Barbone, Misha Bontch-Osmolovskiy and Salman Zaidi "The Foreign-born Population in the European Union and Its Contribution to National Tax and Benefit Systems", Policy Research Working Paper No. 4899, The World Bank, Washington DC, April 2009.

[21] The EU13 group comprises Austria, Belgium, Denmark, Spain, Finland, France, Greece, Ireland, Italy, Netherlands, Portugal, Sweden, and the United Kingdom

data set. The survey data show that an average household in EU13 countries with no migrants pays net taxes of 147 euros per capita per year (€ 4,108 total taxes minus € 3,961 total benefits): by contrast, households with migrants pay, on average, almost seven times that amount (1,012 euros per capita per year). The sum over "net taxes paid" across the four migrant sub-groups shown in Figure 66 suggest that taken together migrants make a net contribution of approximately € 42 billion euros to the national tax and benefit systems of EU13 countries.

Figure 66. Net Taxes Paid by Migrant and Non-Migrant Populations



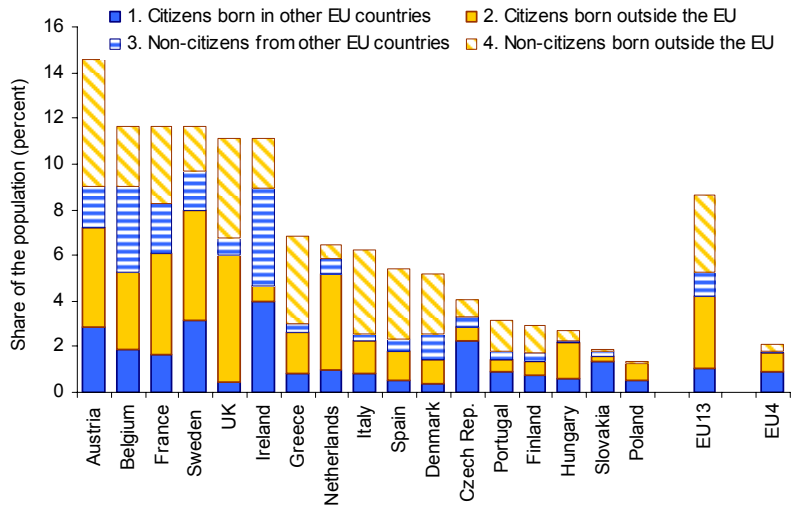
Source: World Bank Staff calculations based on 2006 EU-SILC data

The analysis reveals interesting differences in patterns across countries. The sample of observations in several of the bigger EU countries is large enough to permit key results to also be derived at the country-level (Figure 47). Among these countries, Sweden stands out as being the only country where migrant households contribute less in "net taxes" (i.e. total taxes minus total benefits received) than households with only native-born members. In virtually all the other country cases examined (Austria, Belgium, Spain, Ireland, and the United Kingdom) the reverse is true—i.e. migrant households tend to contribute more to the national tax and

benefits system than households with no migrants. Ireland, Sweden, and the United Kingdom did not impose restrictions on migrants from EU10 countries (i.e. those countries that joined the EU during the 2004 EU enlargement), and consequently were the main destinations of choice for emigrants from the new member countries. As the respective country-graphs clearly show, "non-citizen migrants from other EU countries" in all three of these countries were found to pay significantly higher "net taxes" as compared to the non-migrant population.

Internal migrants generally constitute a relatively small share of the European Union's population. The survey data show that the distribution of migrants by country of origin varies considerably across individual EU countries: Austria, United Kingdom, and France have the largest proportion of migrant population born outside the EU, followed by Sweden and Belgium (Figure 67). At the other end of the spectrum, countries where migrants from other EU countries constitute a sizeable share of the population include Ireland (over 8 percent), Belgium (6 percent), Sweden and Austria (around 5 percent). Ireland and Slovakia are the only countries where the number of migrants born in other EU countries exceeds the number of migrants from outside the EU.

Figure 67. Share of population aged 16+ years by place of birth



Source: World Bank Staff calculations based on 2006 EU-SILC data

Despite the purported surge in internal migration following the 2004 enlargement of the EU, the data show that internal EU migrants also remain a relatively small share of other EU countries' population. Depending on the exact definition used, only about 1 to 2 percent of the population of European Union-13 countries (members prior to the 2004 enlargement, not including Germany and Luxembourg) were born in other European Union countries, while the corresponding share for Visegard countries (Poland, Hungary, Czech Republic, and Slovakia) is even lower.

Overall, immigration is less common in the EU than in the US. About 6 percent of the population of European Union-13 countries was born outside the European Union. By contrast, the foreign-born population constitutes about 13 percent of the total population of the United States (i.e. not including the much larger share of internal migrants within the country).[22]

Migrants help to fill a demographic gap. The 2006 EU-SILC data clearly illustrate the aging challenge confronting both EU4 and E13 countries: 29 percent and 35 percent respectively of the native-born populations aged 16+ years are 56 years or older in these country groups (Table 13). Non-citizens born outside the EU (i.e. group 4) help raise the stock of working-age

[22] US Census Bureau: 2006 American Community Survey, as cited on www.migrationinformation.org.

population in both EU13 and Visegard countries, with more than four-fifths (88 percent and 92 percent respectively) falling in the 16-55 yr age groups.

Table 13. Breakdown of the Population by Age Group

	Native-born Population	1. Citizens born in other EU countries	2. Citizens born outside the EU	3. Non-citizens from other EU countries	4. Non-citizens born outside the EU
EU 13					
16-20 years	6	4	4	2	5
21-55 years	59	52	65	64	83
56+ years	35	44	31	34	12
Total	100	100	100	100	100
EU 4					
16-20 years	7	1	2	6	4
21-55 years	63	26	25	69	88
56+ years	29	73	73	25	9
Total	100	100	100	100	100

Source: World Bank Staff calculations based on 2006 EU-SILC data; population aged 16 years and older

Migrants also tend to bring complementary skills. In EU13 countries overall, citizens look alike in terms of education attainment whether they were born at home or abroad (either in other EU countries or outside the EU) have a fairly similar educational attainment profile as the native-born population (except perhaps that citizens born outside the EU are somewhat more likely to have tertiary education and correspondingly less likely to have primary education only or less (Table 14). In contrast, non-citizens born in other EU countries tend on average to have either more or less education than citizens. Similarly, in Visegrad countries, the foreign-born non-citizens groups have a relatively higher share of those with tertiary education as compared to other sub-groups.

Table 14. Breakdown of the Population by Highest Educational Attainment

Population (percent) with level of education indicated	Native-born Population	1. Citizens born in other EU countries	2. Citizens born outside the EU	3. Non-citizens from other EU countries	4. Non-citizens born outside EU
EU 13					
Primary and below	24	26	16	32	24
Lower secondary	21	19	21	12	21
Upper secondary	31	33	30	25	26
Post secondary	3	4	5	4	6
Tertiary	21	19	28	27	23
Total	100	100	100	100	100
EU 4					
Primary and below	14	20	28	3	2
Lower secondary	6	19	8	16	15
Upper secondary	62	51	47	59	61
Post secondary	3	1	2	3	1
Tertiary	14	10	15	20	22
Total	100	100	100	100	100

Source: World Bank Staff calculations based on 2006 EU-SILC data; population aged 16 years and older