



The World Bank

EU10 Regular Economic Report

October 2008

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The EU10 refers to Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia. The EU8 is the EU10 excluding Bulgaria and Romania.

Summary

Global financial tensions have intensified since early October. Credit markets have seized up, extreme volatility reigns in equity, commodity and currency markets, and the number of banks needing to be rescued has been rising. Policy responses to these developments have been dramatic in developed economies. Emerging markets followed suit immediately thereafter.

The policy response notwithstanding, the financial dislocations thus far make it likely that growth in developed and emerging economies will be substantially weaker for the remainder of this year and next. Growth in EU10's exports to developed economies will slow, and there will be pressure for fixed investment to falter. Financial conditions, moreover, will be substantially tighter than in recent years even under an optimistic medium-term scenario, challenging countries that rely most on external finance to fund fiscal and current account deficits.

Growth in most EU10 countries was already slowing before the crisis, led by output contractions in Estonia and Latvia. Although prospects for economic expansion are to further weaken in 2009, the uncertainty about forecasts is immense.

Inflation has also peaked in most EU10 countries but remains elevated. Declining energy import prices since midyear and an abundant harvest make it likely that inflation will ease further. Countries with flexible exchange rates have had room to limit price pressures, but policymakers' choices are complicated by the ongoing turmoil.

With the gradual deceleration, current account deficits in Estonia and Latvia have narrowed markedly this year, but the Baltics, Bulgaria and Romania still have oversized external shortfalls that leave them vulnerable to shocks. Fiscal and incomes policies to cut deficits to more sustainable levels and support investor confidence need to be sustained.

Fiscal outcomes this year have been in line or better than targeted in all countries except the Baltics and Romania. In Bulgaria (the only country with a fiscal surplus), the surplus should remain broadly unchanged at 3-3.5 percent of GDP, while Hungary's fiscal deficit will likely ease to around 3.5 percent of GDP with the additional fiscal austerity measures recently adopted by government. In the Baltics, budget targets are at risk from a sharper economic slowdown despite expenditure cuts.

These are trying times indeed, but governments and central banks have shown that they had taken the measure of the challenges and were determined to act with the full force of all the instruments at their disposal. Cross-border coordination among them has also strengthened. With the additional support of European and multilateral institutions, where needed, there is every reason to trust that the EU10 will weather the storm, as they have previous ones.

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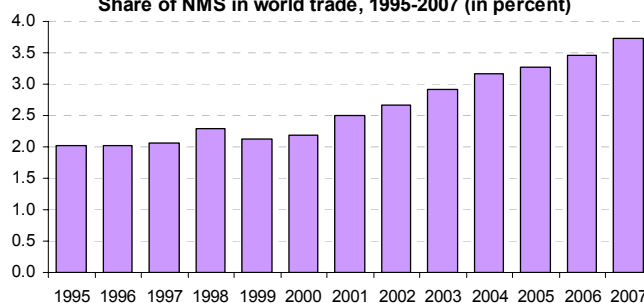
EU10 Regular Economic Report

In Focus: Summary

Trade Dynamics and Patterns in the EU10

One reason why EU10 are now exposed to the knock-on effect of the global crisis is that they have integrated remarkably well into the global marketplace since the start of transition, and particularly in the last decade. Several factors have contributed to this outcome, including EU accession, markets liberalization, improvements in regulation and governance, investments in infrastructure, and the low cost of skilled and unskilled labor.

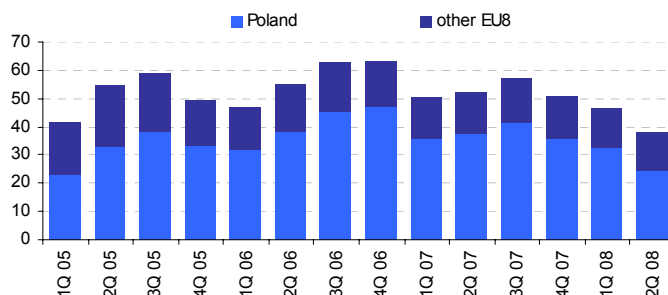
Share of NMS in world trade, 1995-2007 (in percent)



An Update on Labor Migration from Poland

Following a large wave of post-accession labor migration, in particular from Poland and the Baltic countries, outward migration seems to be weakening recently. However, return of these migrants to the regular labor markets in the EU10 from a temporary, below-potential job abroad may not necessarily be easy both for the migrants and the EU10. The decline in outward migration appears to reflect tightening labor markets in the EU10, with the accompanying increase in wages, and relative economic weakness in the receiving economies.

Inflow of EU8 workers to UK (in thousands)



Climate Change Agenda in the EU10: Between the Kyoto Protocol and the EU Package “3x20 by 2020”

The ongoing crisis has put in to sharper focus the commitment that countries have made to deal with climate change. All EU10 countries and Croatia ratified the Kyoto Protocol, which came into force in 2005. But most importantly, the EU10 countries are subject to EU policies, especially the Climate Action and Renewable Energy Package, proposed by the European Commission (EC) in January, 2008 in order to implement the major energy and climate decisions taken by the European Council in March 2007. The package of measures is referred to as “3x20 by 2020”. The EU package extends and deepens the EU commitments to greenhouse gas emission reduction contained in the Kyoto Protocol. While Kyoto targets are being exceeded by all EU10 countries except Slovenia (since the base year was around 1990), the new EU targets are more ambitious.



EU10 October 2008

Main Report

External Environment

The international financial crisis has intensified in early October, resulting in a tightening of interbank markets and conditions, and numerous bank failures and takeovers in developed economies. Equity prices have dropped sharply in both developed and developing countries, while volatility has increased dramatically for equities, commodities and currencies. With the global economy likely to experience a sharp economic slowdown, led by outright recessions in the eurozone and perhaps the U.S., scope is limited for smaller emerging economies dependent on exports (see In Focus: Trade Dynamics and Patterns in EU10) to sustain the recent buoyant pace of economic growth. Slower growth will have negative implications for living standards and fiscal developments. Tighter financial conditions, moreover, are likely to challenge those countries that rely most on external finance to fund growth in credit, fiscal and current account deficits. Overall, the external environment for the EU10 will remain uncertain this year and most likely, well into 2009.

Affected by the financial turmoil, tighter financial conditions and still elevated commodity prices, global growth is slowing rapidly. In the U.S., higher frequency economic indicators suggest that real GDP growth has weakened substantially since midyear, with a slower expansion likely for the year as a whole (Table 1). Output in the eurozone contracted in seasonally adjusted terms in the second quarter from the first, and further contraction is probably underway in the second half of the year.

Commodity prices appear to have peaked, but there is tremendous uncertainty about future trends. By the summer of 2008, energy and grain prices had risen some 80 percent from a year earlier in dollar terms, boosting inflation to multiyear highs in mature and emerging economies, squeezing real household incomes and consumption. Large and abrupt declines in oil and food prices since the summer peak have helped slow inflation and offer some respite to consumers. In the eurozone, consumer price inflation eased to 3.8 percent year-on-year in August after surging to 4 percent in July, well above the ECB's target of "close but lower than 2 percent."

Table 1. Economic Growth (in percent)

	Real GDP Growth			
	2007	2008f	2009f	2010f
World	3.7	2.8	1.3	3.2
U.S.	2.0	1.7	0.2	2.1
Eurozone	2.6	1.3	-0.4	1.7
Japan	2.0	1.0	-0.1	1.9

Source: World Bank, October 2008.

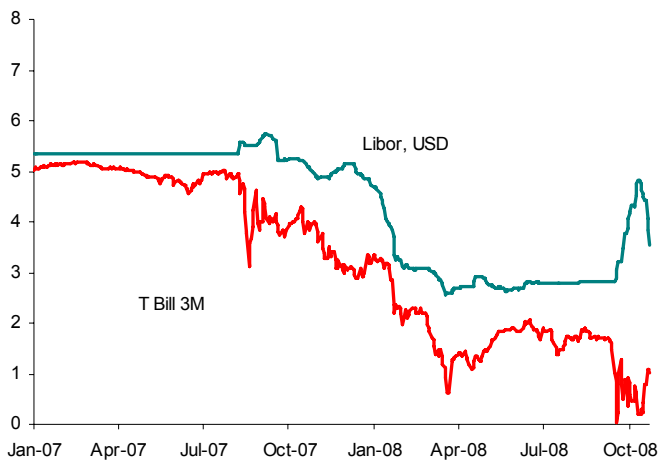
The turbulence in international financial markets has been extraordinary (Figure 1-Figure 4). The financial turmoil, which has its roots in declining prices for mortgage-related securities in the US due to falling housing prices and rising defaults, has spread to the broader capital and credit markets in many countries. Equity prices have fallen across the world, with declines in the larger markets ranging from above 40 percent from the start of the year in the U.S. and the eurozone to around 70 percent in Russia and China. Currencies have weakened substantially in many parts of the world and commodity prices, until recently on an oversized increase, have fallen substantially. These developments have been accompanied by rapid deleveraging, tightening of lending standards and flight to cash. With investors fleeing to the safety of U.S. government bonds, yields on short-term U.S. government securities fell in late September to a quarter of 1 percent, to recover to 1 percent a month later, while interbank rates surged to record highs relative to short-term treasury rates.

The policy response to the panic in financial markets has been dramatic. It started with two of the largest commercial banks in the U.S. being taken over by rivals with government encouragement, and the authorities in Europe taking over or prop up several large institutions. Fannie Mae and Freddie Mac, the huge government sponsored enterprises that underpin about half of U.S. mortgages, have been placed under conservatorship. Central banks have poured extraordinary amounts of liquidity in interbank markets through outright monetary ease. The result was a sudden collapse in confidence between financial institutions, with the resulting extreme evolution of interbank lending spreads, when Lehman Brothers was allowed to fail on September 15th. This has

followed by the U.S. adopting a \$700 billion package to buy troubled financial assets and the UK approving a £50 billion bank bailout package. Some countries like Spain and Switzerland have also taken measures to take illiquid assets off bank balance sheets; others have focused on providing support to bank liabilities, either directly through massive use of the central bank balance sheet or indirectly through new bank debt guarantees (e.g., Spain, UK, USA, France, Ireland, Netherlands, Sweden, Australia and Korea), while some have been injecting equity into the banking system (e.g. Switzerland, Netherlands, UK, Germany, France). By the time of the writing the total estimated cost of interventions of all natures across developed economies amounted to approximately \$8,600 billion, half of which to be attributed to the U.S.

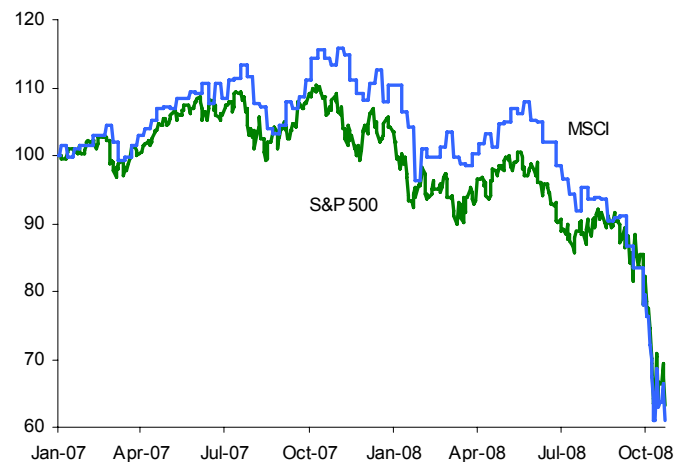
In order to secure depositors' trust and prevent the bank-run, an increase in the insured deposit limits has been implemented as a priority across all the euro zone countries and the U.S. The U.S. has temporarily raised the limit for insuring bank deposits to \$250,000 from \$100,000. The EU countries have been increasing the minimum limit for insuring bank deposits to €50,000 from €20,000. Several EU countries, including Germany, Ireland, and Greece, followed by some new member states (like Slovenia), have moved to protect all bank deposits.

Figure 1. 3-month US Treasury Bill and 3-month LIBOR (in percent)



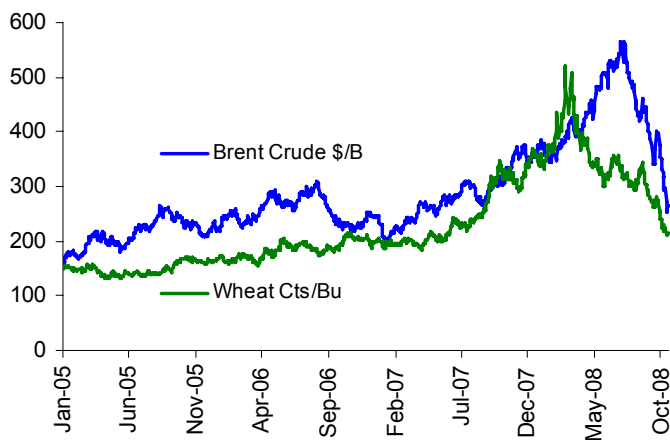
Source: Reuters

Figure 2. Equity Prices, S&P 500 and MSCI (January 2007=100)



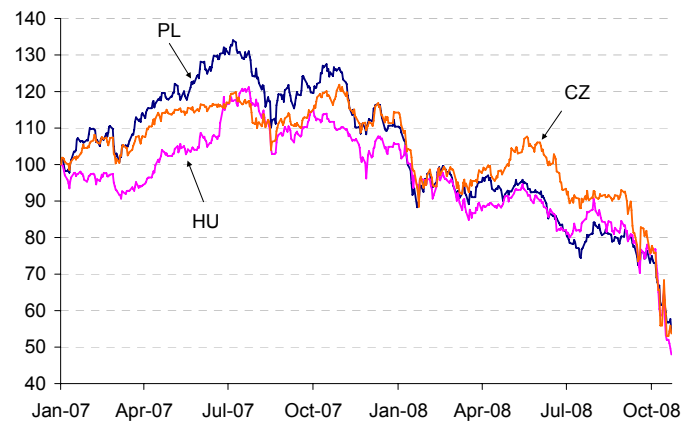
Source: Reuters

Figure 3. Food and Petroleum Prices (index, 2000=100, US\$, and dollars per barrel)



Source: World Bank, GEM database

Figure 4. Stock Exchange Index (Jan 2007=100)



Source: Reuters.

Further consolidation of the banking system, as banks will need to increase capital ratios; along with the regulatory framework strengthening could be expected in the near to medium term. This would parallel the likely surge in government debt issuance needed to finance banking sector rescue packages and broader efforts at fiscal support (See Fiscal Policies). Demand for 'safe heavens', i.e., carry-trade currencies like the Swiss

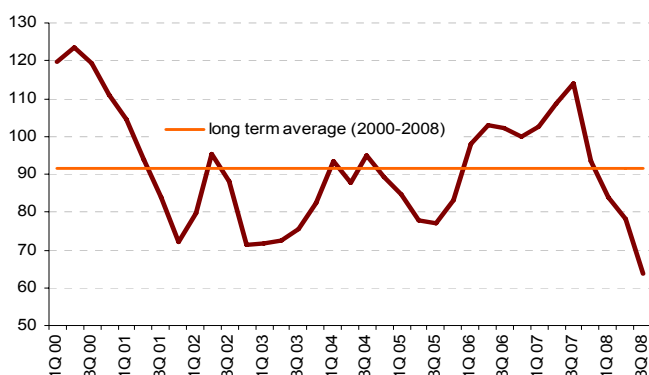
franc, the yen or the dollar is picking up creating a concern for some central banks. In case of the Swiss franc, the currency has hit its highest level since early 2003 against the euro.

Implications of the Financial Turbulence for the EU10

The EU10 countries' monetary authorities and government have been prompt to adopt appropriate measures in a response to recent global financial turmoil. Following the euro zone countries' emergency meeting in Paris on October 12, a number of pan-European measures aimed at recovery of the battered financial sector was adopted and the EU10 countries followed suit. In addition to increasing insured deposits' limit generally towards €50,000 (except Lithuania to €100,000 or unlimited in Slovenia), measures taken by the central banks have been mostly focused on ensuring appropriate liquidity conditions for financial institutions through FX credit lines and swaps, reversed repo auctions, including with state bonds as collateral, enhancing cooperation with parent supervisors and ensuring readiness to facilitate the funding of the banks in case the international inter-bank market remains frozen in 2009 (i.e. Slovenia will set aside €8 billion for credit institutions refinancing if the market situation does not improve; Bulgaria, Hungary, Lithuania and Romania have contingency plans as well).

The full impact of the financial turbulence on the EU10 is yet to be realized and substantial uncertainty remains, given the rapidly changing international environment and rapidly changing macroeconomic and financial conditions. The direct impact on the EU10's financial systems through exposure to "toxic" securities appears to be nil. Banks in the EU10, moreover, are owned by foreign banks, most of which do not appear to have been affected seriously by the crisis. The indirect effect is likely to be substantial, however, through the slowdown in global demand for EU10's exports, the tighter financial conditions and the possibility of contagion. Countries with large external financing needs, notably the Baltics, Bulgaria, Romania and Hungary, will be experiencing tighter external financing conditions.

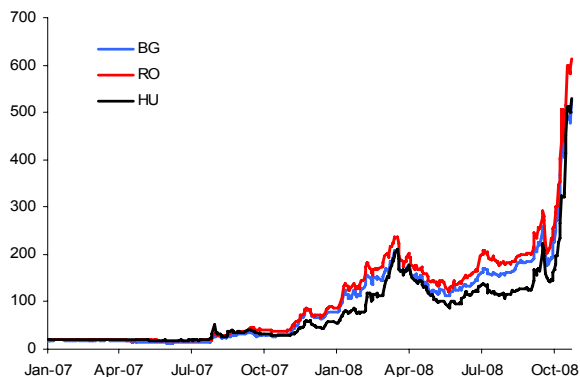
Figure 5. Ifo Economic Climate for the Euro Area



Source: Ifo Institute.

Notes: Arithmetic mean of the judgment about the present and expected economic situation

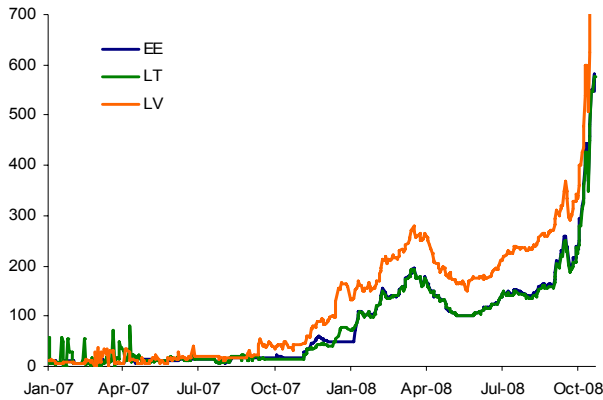
Figure 6. Credit Default Swaps, Bulgaria, Romania and Hungary (in basis points)



Source: Morgan Markets

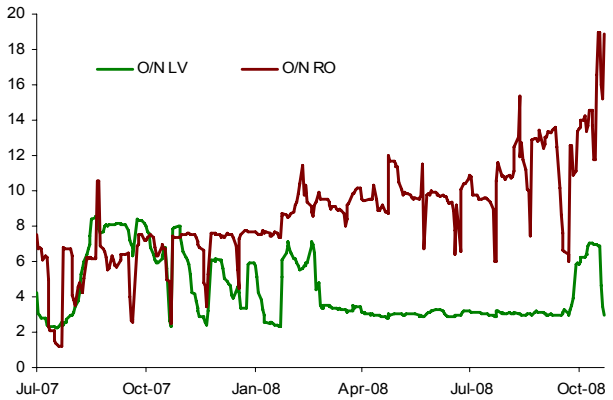
Given the integration of the EU10 countries in global product and financial markets, the financial turmoil has spread quickly to the region. Credit default swaps (CDS) widened by most in the Baltic countries, Bulgaria, Romania and Hungary. In Latvia, for example, the 5 year CDS rose to over 900 basis points. Similarly, spreads on foreign currency denominated bonds have also risen substantially. Some countries in the region are also experiencing a shortage of liquidity reflected in sharp increases in interbank rates. Latvia's overnight interbank rate more than doubled in the first two weeks of October; while the lat remained at the lower end of its 1-percent band against the euro. The 3-month interbank rate surged to 14.6 percent in Romania in the same period (Figure 5-Figure 8). The repricing of risk and withdrawal of foreign investors has caused equity markets to plummet. Equity prices were down by an oversized 22-25 percent in September in Bulgaria, Romania and Hungary to be falling further to three- and four-year lows in other EU10 countries as well during October. The decline in equity markets throughout the EU10 countries has also reduced household wealth, but the relatively small size of equity markets and the rather concentrated ownership among wealthier domestic investors should limit the impact on overall household spending.

Figure 7. Credit Default Swaps, Baltics (in basis points)



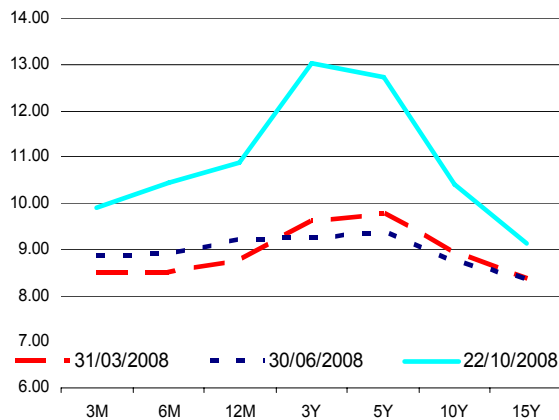
Source: Morgan Markets

Figure 8. Interbank Rates, Latvia and Romania (in percent)



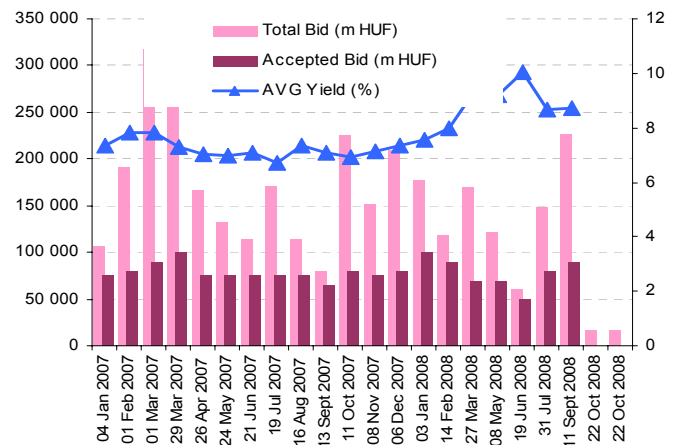
Hungary has so far been the worst affected, although it has not been perceived as the most vulnerable country in the region. Despite subsequent reductions of its budget deficit and external financing needs, the economy's strong reliance on export growth to the EU and the high share of FX-denominated private sector credit stock are key weaknesses in the current environment of high risk aversion and global slowdown. While Hungarian gross external debt reached 100 percent of GDP, the net external exposure was only 54 percent of GDP in Q1 2008, significantly less than in Latvia, Estonia or Iceland (270 percent). Furthermore, short-term debt amounts to only 10 percent of Hungarian external debt and it is fully covered by the FX reserves. It is the strong demand for FX funding (particularly Euro and CHF), caused by a maturity and a currency mismatch in the banking sector, that remains a concern. Hungary, like some other countries, suffered from the global CHF liquidity shortage, which has created pressure on the liability side and increased local investors' concerns about the future ability of Hungarian banks to provide less-costly loans in Swiss francs (see Box 1). While the equity market collapsed following the global trend, the liquidity has dried up in the bonds market with the forint depreciating by more than 13 percent m/m versus Euro. Yields have reached unrealistic, fundamentally unjustified levels, due to the lack of demand for the government papers, including from foreign investors that have reduced their exposure to government bonds below the usual value of Ft 3,000-3,400 billion. The yield curve edged up as compared to end of June, in particular in 3Y segment (Figure 9).

Figure 9. Hungary: yield curve



Source: Reuters

Figure 10. Hungary: 3-year govt bond auctions



Source: AKK

The Hungarian government and the central bank have taken bold steps to stabilize situation and regain market confidence. In the short term, the National Bank of Hungary (NBH) focused on resuscitating the markets that have not been functioning properly in recent days (including the FX swap market and the government bond market); it introduced the two-way daily O/N FX swap tenders and overnight FX-swap facility providing euro liquidity (under an agreement with the European Central Bank). Moreover, NBH signed an

agreement with primary dealers of government securities and offered to provide liquidity in the form of secured loans to banks and primary dealers in the exchange of continuous bid-offer prices at the stock exchange for all publicly issued forint-denominated government securities. The NBH has also introduced two new lending facilities: a weekly tender for two-week, fixed-rate secured loans, without a limit on the amount; and a regular tender for six-month, variable-rate secured loans, for a pre-specified amount. At the same time, the government prepared the plan aimed to push the fiscal deficit below 3 percent of GDP in 2009, as well as is concluding its new arrangement with the IMF.

The recent problems experienced by the Hungarian economy and the sell-off on the financial markets have caused a dramatic increase in risk aversion towards the region. As a result, yields have increased significantly over the last two-three weeks, reaching record highs. In addition, the bond market in Poland and Czech Republic is facing liquidity problems and an outflow of the capital in investment funds. In an attempt to support the bond market and to prevent other negative consequences from the global financial crisis, the Czech National Bank (CNB) started reverse repo operations with government bonds as collateral.

Box 2. FX borrowing vulnerabilities

As a result of the global crisis, some of the well-known vulnerabilities of EU10 financial markets have been exposed. For examples, in a number of countries in the region (Baltic countries, Hungary, Romania, and Bulgaria), foreign currency loans were very popular, in particular in the euro and the Swiss franc (see Figure 11 and Figure 12). In the light of the rise in external credit spreads and the increased risk of a sudden-stop external financing, policy makers in the region responded quickly with a wide range of measures aimed at restoring confidence and enhancing liquidity on the interbank markets. Eligibility criteria for new loans have also tightened and lending in foreign currencies in some instances has been cancelled. Additionally, both at the EU and national level, higher guarantees of bank deposits were introduced in order to ensure an adequate deposit base. In particular, the latter was important in countries with relatively high loans-to-deposits ratios (see Figure 13).

Figure 11. Contribution to real credit growth in 2002-2007, (in percent)

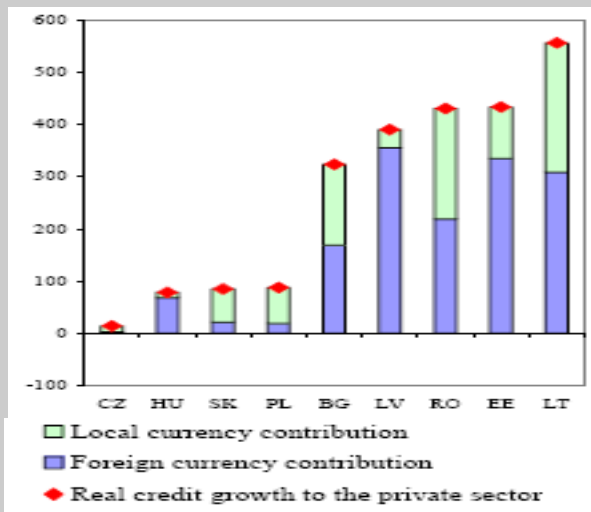
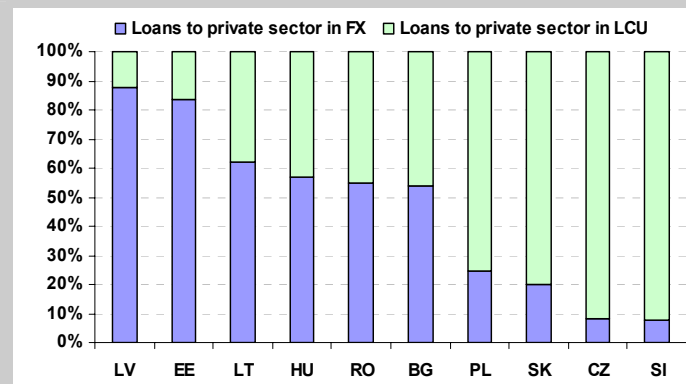


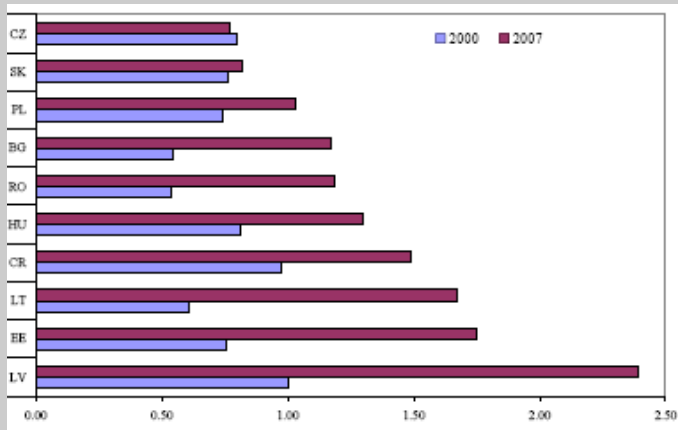
Figure 12. Currency structure of bank loans to the private sector in the EU10 in 2Q 2008



Source right-hand chart: Central Banks
 Source: Rosenberg C., Tirpák M. Determinants of Foreign Currency Borrowing in the NMS of the EU, IMF Working Paper, July 2008.

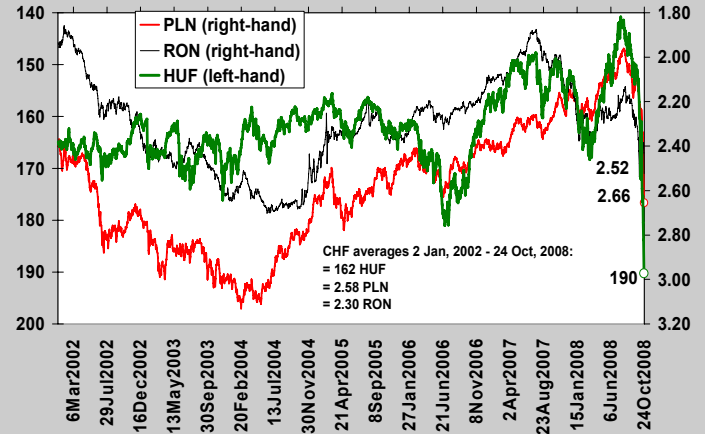
For some countries with flexible exchange rate regimes, the recent depreciation of local currencies, may not lead to as large a relative increase in debt servicing costs as the rapid reversal of market sentiment in the EU10 may suggest. For examples, on 24 October, 2008, the Polish zloty was only 3 percent weaker against the Swiss franc compared to its average level since 2002. The RON and HUF, however, were not that close long-term average - 9.5 and 17.5 percent weaker, respectively (see Figure 14). Nevertheless, after a time of extraordinary gains resulting from local currencies' appreciation against "hard" currencies, many households are exposed to the risks of unhedged currency positions. However, the exposure of the banking sector may be more limited as they tend to be backed relatively well by collaterals that are still priced above original values.

Figure 13. Loan-to-deposit ratio in the EU10



Source: Rosenberg C., Tirpák M. Determinants of Foreign Currency Borrowing in the NMS of the EU, IMF Working Paper, July 2008.

Figure 14. HUF, RON, and PLN exchange rates against CHF in Jan 2002-24 Oct, 2008



Note: reverse scale - decline denotes LCU depreciation
Source: EBC data, staff calculations.

As argued below, weaker demand abroad and the ongoing financial turbulence will contribute to slowing output growth in the EU10. This will put pressure on fiscal balances, in many countries after years of running pro-cyclical fiscal policy. It is important for the authorities to begin reversing the pro-cyclical tendencies in fiscal policies. At the same time, governments should be careful not to widen fiscal deficits by more than investors will be ready to finance and deem sustainable at a time of more negative investor sentiment. Governments should also be careful not to adjust spending by cutting social transfers indiscriminately at a time when slower growth will clearly weigh on living standards, especially in the poorer countries and more disadvantaged regions. At a time when citizens are coming under pressure from the increased share of outlays on food in household budgets (given the earlier increase in food prices) and weaker economic activity, governments will be well advised to sustain, and where needed, better target social safety nets.

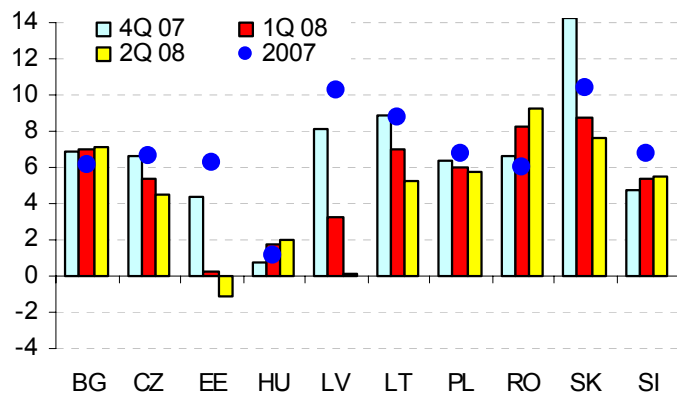
There may be some scope for monetary easing in some countries to alleviate the impact of the turbulence should liquidity issues begin to emerge. Such issues have not appeared thus far. Scope for monetary easing will be larger in countries that have been able to control better inflation thus far.

The global slowdown will put economic fundamentals at test and will penalize the slow reformers of the past the most. The time of low borrowing costs, high foreign investment, rising tax revenues and higher living standards will now have to be replaced by some painful decisions to reform public finances; increase labor force participation rates, particularly by penalizing early retirement; improving productivity by modernizing education; reducing red tapes and improving governance and investment climate.

Output and Demand

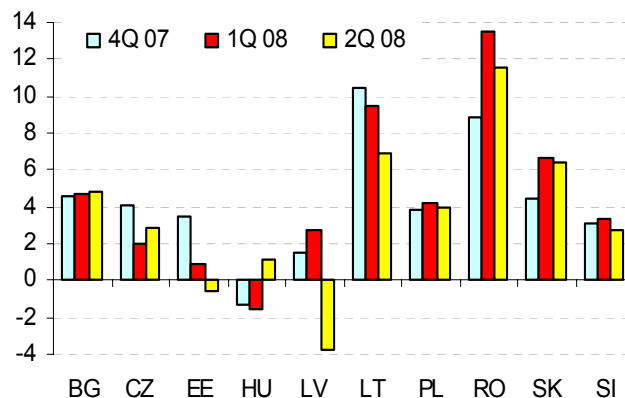
The pace of economic activity has slowed this year in all countries of the region except Romania, reflecting a combination of weak external demand and sluggish domestic spending (Figure 15). The latter is due to the surge in consumer price inflation earlier in the year and the tighter financial conditions that led to slow growth in consumer credit. The slowdown in activity among the EU10 has been led by outright contractions in output in Estonia and Latvia, as measured on a seasonally adjusted basis. From a year earlier, real GDP contracted by 1.4 percent in the second quarter in Estonia and growth was barely positive in Latvia, in both countries reflecting a broad-based decline in activity following an earlier period of overheating. The slowdown has been more moderate in Lithuania so far.

**Figure 15. Real GDP growth
(% change, yoy)**



Source: Statistical offices.

**Figure 16. Final Consumption Expenditure
(% change, yoy)**



Source: Eurostat.

In contrast to weaker economic expansion in the rest of the EU10, real GDP growth strengthened in Bulgaria and Romania in H1 2008. Real GDP growth rose to 7.1 percent in Bulgaria and is likely to have remained strong in the third quarter, thanks to a buoyant harvest. Growth accelerated to 9.2 percent in the second quarter in Romania, reflecting strong expansion in private consumption and investment.

The prospects for growth for 2008 as a whole are worsening as growth is likely to weaken in all countries by the end of the year. For the year as a whole, real GDP growth is likely to accelerate to about 8 percent in Romania only and somewhat pickup from a low base in Hungary this year, with real GDP growth of about 1.5 percent. Depressed sentiment indicators suggest that output will likely contract for the year as a whole in Estonia and Latvia, and slow substantially in Lithuania. A more moderate, yet sustained, slowdown appears likely in the Czech Republic, Bulgaria, Poland and Slovenia.

The economic outlook is rapidly changing, along with the developments in international financial markets. As of the time of this writing, it appears that economic challenges facing the EU10 are likely to multiply in 2009. Growth is likely to slow in almost all countries due to weak external demand and tight financial conditions, with projections subject to substantial uncertainty. Moreover, weakness in external demand and deteriorating financial performance of enterprises, as assessed at the time of this writing, may well result in a decline in investment growth. While further moderate slowdown appears likely in Bulgaria, Czech Republic, Poland, and Slovenia; Romania and Slovakia are estimated to face more substantial slowdown but from a higher growth rates in the past. Estonia and Latvia will likely face prolonged contraction.

Employment

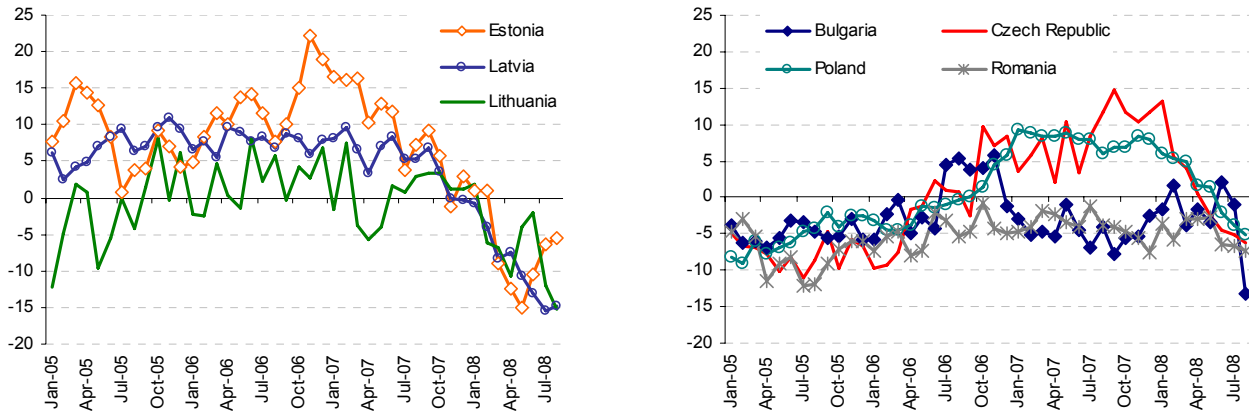
The slowdown in economic activity has had little impact on the EU10 labor markets thus far. Unemployment rates fell in all countries but Hungary through the middle of 2008. There seems to be a modest pickup in registered unemployment in the last several months in the Baltic countries, but the increase thus far is of less than one-tenth of one percent. Early indicators signal that labor markets are weakening in the Czech Republic, Slovakia and Poland.

Unemployment will likely rise in 2009 and 2010 in most EU10 countries, as the ongoing slowdown takes its toll. Ongoing or expected slowdown is likely to translate into deteriorating labor market outcomes, however, so far the response of unemployment has been delayed in part probably due to relatively high employment protection and firing costs (see Special Topic on Labor Markets in June 2007 and the 2009 Doing Business Report). This response (underscored by gloomier employment expectations recorded in economic sentiment surveys) suggests a sharp increase in joblessness is likely, especially in the Baltics (Figure 17). The likely return of migrants from the EU15 countries because of the rapidly deteriorating economy in that part of the EU may also add to unemployment.

Thus far, however, low unemployment and high inflation has fed into wage pressures in most EU10 countries. Sustained skill shortages and low internal mobility, in particular in the larger countries, are also an important factor that has added to wage pressures. Average real wages rose the fastest in the faster growing

economies, led by Romania (16 percent from a year earlier), Bulgaria (11 percent) and Poland (7 percent). Real wage growth appears to have slowed to 5 percent in Latvia and 10 percent in Lithuania from 20 percent last year and is likely to slow further in the region in 2009, except maybe for Romania where a 50-percent increase has been granted to teachers likely to be followed by other public administration.

Figure 17. Employment Expectations for Three Months Ahead

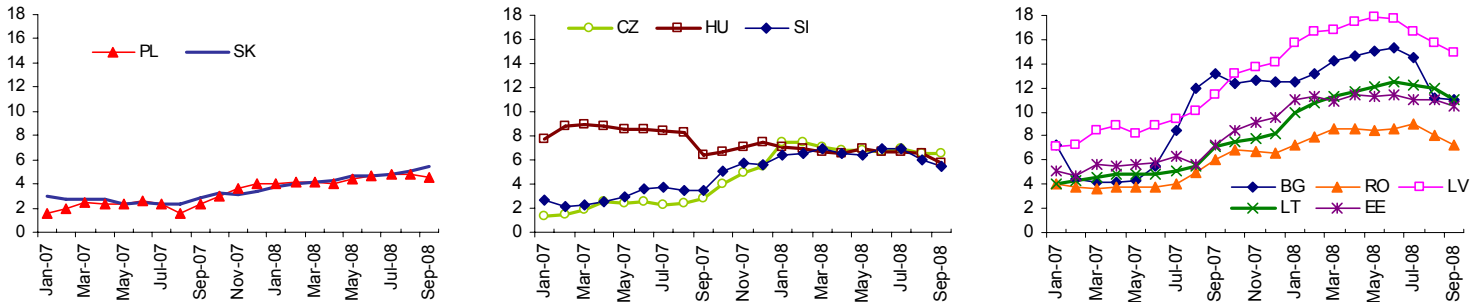


Source: European Commission. Note: A negative value indicates no plans to increase employment.

Inflation

Inflation has begun to decline in most countries in the region, after price increases surged in early 2008 because of higher prices for food and imported energy (Figure 18). Prospects that commodity prices will continue to fall suggest that further decreases in inflation are likely. The ongoing financial turmoil and slowing global growth are complicating policy-makers' choices even as inflation remains high.

Figure 18. Consumer Price Inflation (% change, yoy)



Source: Central Statistical Offices.

The recent slowdown in inflation has been most pronounced in those countries where increases were the largest earlier, namely in Bulgaria, Estonia and Latvia. Despite easing for the fourth month in a row, 12-month inflation in Latvia is still very high, at 14.9 percent in September. Inflation has also eased in Romania, the Czech Republic and Hungary but remains far above the central banks' target range. In Poland and Slovakia, 12-month consumer price inflation has remained little changed in recent months at about 5 percent, but core inflation has continued rising in Slovakia.

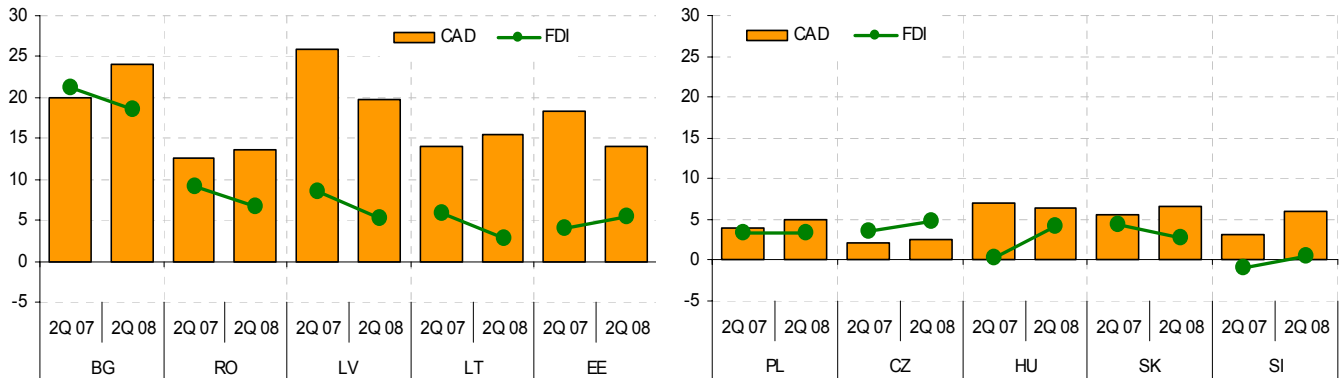
Inflation is likely to slow in 2009, reflecting the decline in commodity prices and weak domestic demand. The Baltics and the Czech Republic should see faster reductions in inflation, in the latter also due to the lag effect of sizeable strengthening of the koruna until September. Double-digit wage increases for certain categories of public employees in Romania and Slovenia, along with currency weakness in the former, and pressures to boost spending ahead of the parliamentary elections in several countries, could limit the pace of decline in inflation, however. Decreases in inflation are also likely to be moderated by the continued tight labor conditions or upward adjustments in administered prices (Bulgaria, Lithuania, Poland and Romania).

Balance of Payments

Downward adjustment in the current account deficits in Estonia and Latvia has been substantial this year, but the Baltics, Bulgaria and Romania still have oversized external shortfalls (Figure 19). The current account deficit in Estonia and Latvia narrowed by about 7 and 9 percentage points of GDP respectively from a year earlier, as imports contracted in line with the rapid economic slowdown. The external shortfall narrowed modestly in Lithuania and Romania due to subdued imports. The deficit widened in all other countries, except Poland and Hungary, reflecting export weakness and the surge in oil import prices in the first half of the year. Bulgaria's current account deficit rose to 24 percent of GDP in Q2 2008 from 20 percent a year earlier, thanks to stronger imports of investment goods and high oil import prices.

Net capital flows fell sharply in the Baltics and by a smaller margin in Romania this year. Net capital inflows shrunk by 12.7 percent in 12-months ending June 2008 (compared with a year earlier) in Latvia and by about 8.5 percent in Estonia while it still increased slightly in Lithuania. Despite the decline in net capital inflows, foreign exchange reserves rose in Latvia and Estonia as current account deficits fell by more. In Lithuania, by contrast, foreign exchange reserves fell as compared to end-2007, but this was followed an earlier significant increase reflecting changes in central government deposits with the central bank. This year, inflows of foreign direct investment were large in the Czech Republic and amounted to about half of overall capital flows in Bulgaria, Hungary and Romania. In the Baltic countries and Slovenia, by contrast, borrowing abroad by the commercial banks remained the primary source of external financing.

Figure 19. Current Account Deficit and Net Inflow of Foreign Direct Investment, 2007-2008 (percent of GDP)



Source: Eurostat, World Bank staff calculations.

Note: Data on CAD and FDI on annualized basis.

Several countries in the region have large levels of external debt, reflecting the dependence on debt flows in financing large external shortfalls. Gross external debt varies from 40 percent in the Czech Republic, to 71.6 percent in Lithuania, close to 100 percent in Bulgaria, Estonia, Hungary, Latvia and Slovenia. Intercompany debt forms a significant portion of the overall gross external debt in the EU10, with the highest shares in Bulgaria (30 percent) and Hungary (18 percent). Countries with fixed exchange rates have the highest levels of short-term debt relative to GDP, reflecting to large extent nonresident deposits with domestic banks. Short-term debt as a share of GDP, moreover, is rising in five of the EU10 countries.

The looming global slowdown in economic activity makes it unlikely that further adjustments of current account deficits among the EU10 can be driven by exports. It is likely that more sluggish domestic demand in the EU10 and lower prices for imported energy and other commodities will help limit imports and help reduce imbalances in the Baltics and Bulgaria more than elsewhere. While at present policy efforts should focus on limiting the impact of the global financial crisis on the domestic financial system, renewed emphasis on tighter fiscal and monetary policies and appropriate income policies will be needed once the current threat is overcome.

Fiscal Policies

Fiscal outcomes in 2008 are in line with government plans, except in the Baltics and Romania. In all three Baltic countries, revised and weaker 2008 budget targets are at risk under a sharper than expected economic slowdown, despite further expenditure cuts envisaged for this year. Estonia's budget will probably shift to a deficit for the first time this decade despite sizable spending reductions of about 1.2 percent of GDP. The fiscal deficit will also widen in Latvia, where the government is mulling spending cuts beyond the earlier planned staffing reductions. In Lithuania, the government estimates fiscal deficit to widen substantially to 2.35 percent of GDP, up from initially planned 0.5 percent of GDP, as revenues from indirect taxes have fallen short of targets and spending cuts did not materialize ahead of the October parliamentary elections.

Fiscal developments in the other EU10 countries were mixed this year. This outcome reflects to a large extent buoyant revenues, thanks to higher growth and inflation (in Bulgaria, Hungary and Romania), hikes in indirect taxes, despite cuts in personal income tax rates in four out of ten countries. Stronger inflows of EU funds have also helped support revenues. However, spending has also risen strongly reflecting increases in pensions (Romania) and other social transfers, public sector wages and subsidies (in particular, in Hungary to the railway company). For 2008 as a whole, the fiscal deficit is projected to widen in the Baltic, Republic, Poland and Romania, in the latter despite exceptionally strong growth. Bulgaria's fiscal surplus should remain broadly unchanged at 3.2 percent of GDP for 2008, while Hungary's fiscal deficit should ease to 3.4 percent of GDP, thanks to buoyant tax collection.

Fiscal developments in 2009 will reflect the projected weaker economic expansion in all EU10 countries, slowing inflation and sustained pressure in many countries to compensate for this year's high price increases by boosting social spending. Only Bulgaria of all the EU10 countries plans and is likely to achieve a general government surplus in 2009 of about 3 percent of GDP. In Romania, weaker growth as well as a 50-percent hike in teachers' salaries will likely lead to deficit widening toward 3.7 percent of GDP and above this year. The 2009 budget in Poland projects the general government deficit to remain broadly unchanged at about 2 percent of GDP in 2009, but achieving this outcome will be challenging given the projected slowdown in economic activity. In Hungary, the budget targets the deficit to narrow to 2.9 percent of GDP in 2009 under the assumptions that additional saving measures are introduced early on in 2009. The government has already withdrawn the previously planned tax cut package and reduced the original spending ceiling by 1 percentage points of GDP. Major spending cuts that have been recently proposed concern pension, road and railway spending and family subsidies (Table 2).

The fiscal challenges will likely be the greatest for the Baltic countries, given the weak economic activity. According to the central bank, fiscal deficit in Estonia is likely to widen to 2.5 percent of GDP despite government attempts to balance it, including by reducing outlays by 10 percent. The government also plans to scrutinize more closely welfare benefits and introduce measures to boost revenues, including by hiking the preferential VAT rate, shifting some goods and services to the regular VAT rate and putting on hold plans to cut further the income tax rate. Latvia's central government targets the fiscal deficit to widen to 1.85 percent of GDP in 2009 from a balanced budget in 2008. On the spending side, the government plans a public sector wage freeze, cuts in civil service employment by 10 percent and reductions in the operational cost of government institutions by more than 10 percent. Nonetheless, the budget is based on the overly optimistic assumption of real GDP growth of 2 percent, which according to the central bank, risks deficit widening to 4-5 percent of GDP in the worst-case scenario. In

Table 2. 2009 Fiscal Adjustment in Hungary

Tax Revenues:

- Downward revision of macroeconomic forecasts (-0.85% of GDP);
- Elimination of planned tax cuts (+0.5% of GDP).

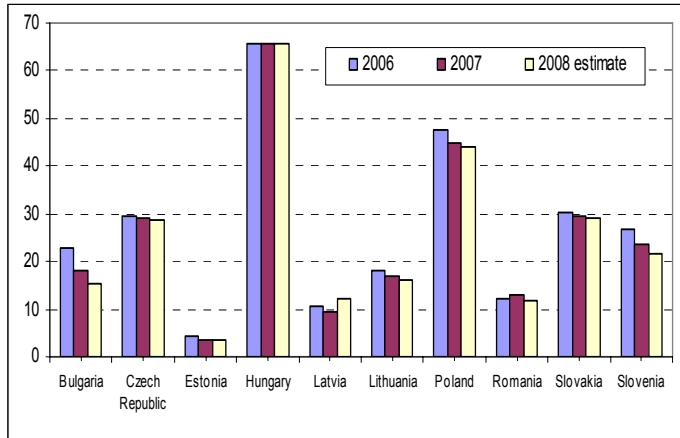
Expenditure Cuts to compensate for the revenue loss and reduce deficit from the originally planned 3.2% to 2.9% of GDP:

- Freeze of real wage in the public sector;
- Administrative cost cuts of line ministries (0.1% of GDP);
- Lower pension spending due to lower wage increase and inflation (almost 0.2% of GDP)
- Specific pension correction delayed to September (almost 0.1% of GDP)
- Increase of family benefits delayed to September (almost 0.1 of GDP);
- Cut of public transport price subsidy;
- Reduction of subsidies to rail and road passenger transport (0.1% of GDP)
- Capital spending reduction (0.1% of GDP).

Source: MOF

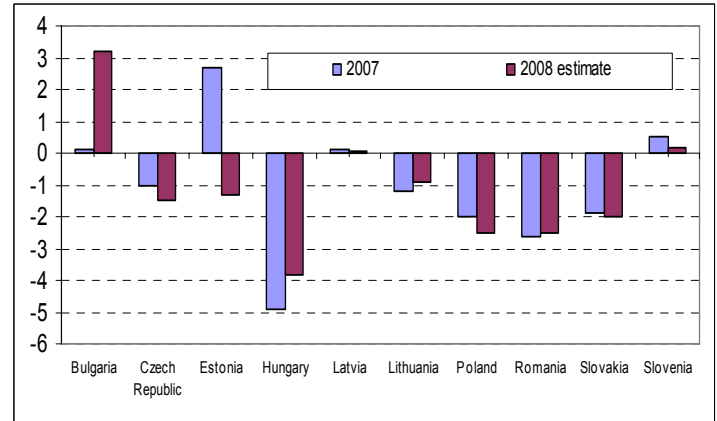
Lithuania, the current draft 2009 budget envisages the deficit of 2.3 percent of GDP (for general government excluding social security fund), despite repeated calls to government institutions to cut spending levels.

Figure 20. General Government Debt, 2006-2008 (% of GDP)



Sources: Eurostat, Ministries of Finance, World Bank staff calculations.

Figure 21. General Government Balance, 2007-2008 (% of GDP)



Note: A decrease in Bulgaria's fiscal surplus in 2007 from 3.4 percent of GDP is due to new information on a debt cancellation towards Iraq.

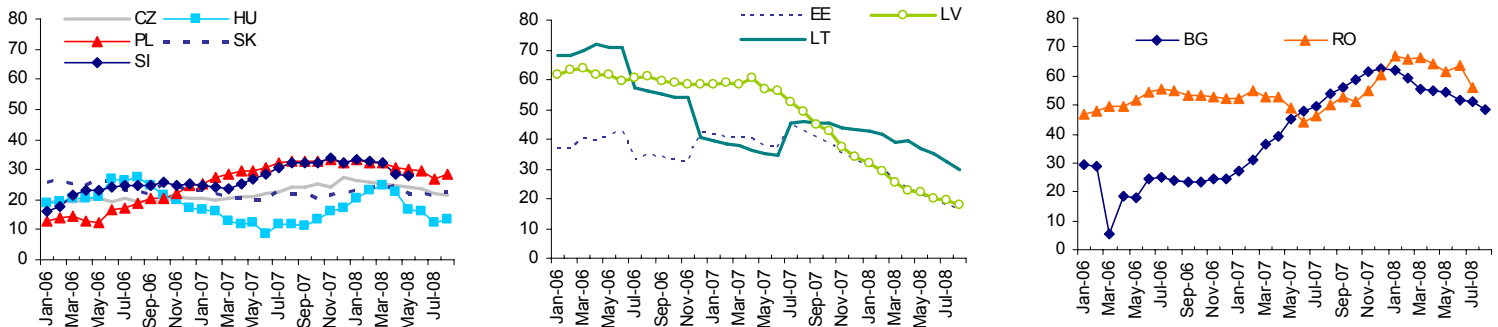
Sources: EDP Notification, October 2008, Eurostat, staff calculations.

As the EU10 adjust to the ongoing slowdown in growth and pressure on revenues and budgets, it will be important not to put the burden of adjustment on targeted social protection spending. Indeed, times of economic downturn require continued commitment to well-funded and well-targeted social protection schemes to help alleviate the pressure on the most vulnerable members of society. It will also be important to ensure that fiscal policies are not pro-cyclical, as they were in many EU10 countries during the times of strong economic growth. Counter-cyclical fiscal policies help build cushions to use in times of need, and they help limit macroeconomic and fiscal imbalances.

Monetary Developments

In the course of only a few months, the emphasis of central banks in the region has shifted from reacting to rising inflation to dealing with the possibility of a stronger decline in inflation and the global financial turmoil. In the Czech Republic, large exchange rate appreciation led the central bank to cut its key policy rate by 25 basis points in August to 3.5 percent. Despite earlier expectations of further monetary tightening, central banks decided to keep rates unchanged in September in Hungary, Poland and Romania, given easing inflation pressures and the ongoing financial turbulence.

Figure 22. Credit to Private Sector (% change, yoy)



Source: Central Banks

The tighter financial conditions, growing concerns about credit risk amid the intensifying global financial crisis and weakening economic expansion have resulted in slower growth in domestic credit in most countries (Figure 22). Banks are tightening lending requirements, which, together with slowing demand for

credit, has helped slow credit growth substantially in the Baltics, Bulgaria and Romania. In Romania, the central bank issued new regulations to help slow credit growth in response to a sharp pick up in non-performing loans. The new regulations require commercial banks to set, with the approval of the central bank, maximum indebtedness ceiling for clients along several dimensions including the type and currency of the credit, category of client, maturity and type of interest. For banks that did not comply by October 6, 2008, the maximum ceiling was set at 35 percent of income, compared with up to 70 percent earlier. In September, Latvia's central bank reduced the reserve requirement to 5 percent of gross deposits from 6 percent, in an attempt to alleviate liquidity constraints. In Hungary, four banks have ordered their Hungarian subsidiaries to stop lending in foreign currencies in recent days, while many banks have already announced changes in their lending policies in order to limit CHF lending.

Two of the most significant policy responses to currency weaknesses thus far have come from Romania, which has tightened liquidity to squeezed Leu shorts, and Hungary, where the NBH raised rates 300bps to 11.5 percent in an attempt to stop the weakening of the forint. All of the central banks, however, are ready to intervene on the forex market if necessary.

These are trying times indeed, but governments and central banks have shown that they had taken the measure of the challenges and were determined to act with the full force of all the instruments at their disposal. Cross-border coordination among them has also strengthened. With the additional support of European and multilateral institutions, where needed, there is every reason to trust that the EU10 will weather the storm, as they have previous ones.

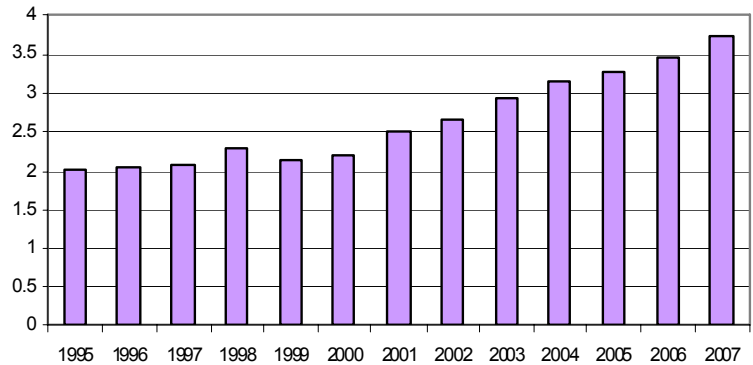


EU10 October 2008

In Focus: Trade Dynamics and Patterns in the EU10

The EU10 have integrated remarkably well into the global marketplace since the start of transition, and particularly in the last decade. While their share in global trade was largely constant in the late 1990s, the share increased from about 2 percent in 2000 to over 3.6 percent in 2007, a period of strong expansion in global trade (Figure 23). EU accession, markets liberalization, improvements in regulation and governance, investments in infrastructure, and the low cost of skilled and unskilled labor represent the combination of factors that explain this outstanding performance. Large inflows of foreign direct investment (FDI) have underpinned the surge in capacity and helped enhance the competitiveness of the region. Growth in exports and imports is weakening during the ongoing turmoil in international financial markets and slowdown in global economic expansion, but should resume at a more buoyant pace once the threat is dealt with.

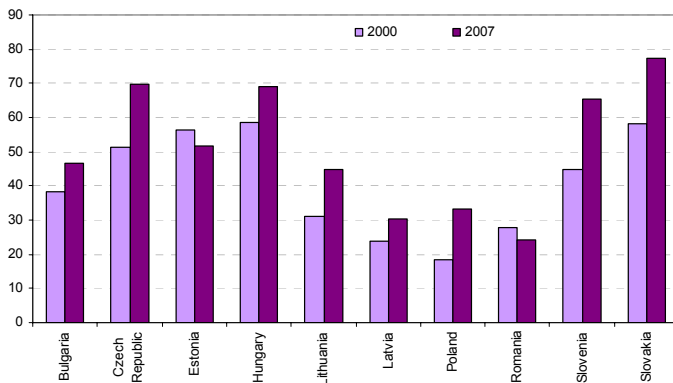
Figure 23. Share of the EU10 in World Trade, 1995-2007



Source: Eurostat, World Bank staff calculations.

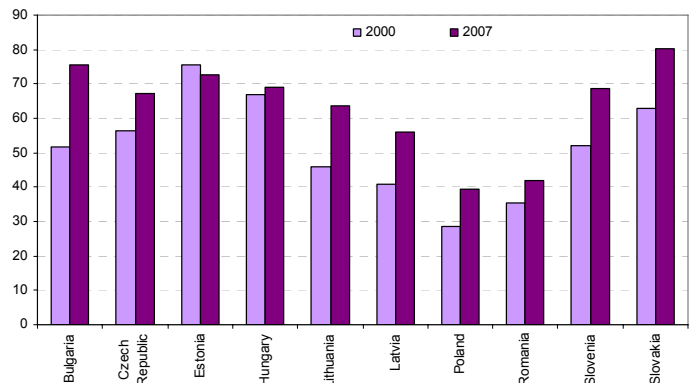
Within the EU10, the degree of trade openness continues to vary substantially across countries, with the early reformers having integrated more effectively into the global commerce. Hungary, the Czech Republic and Slovenia, but also Slovakia, have seen exports rise to about or more than 70 percent of GDP (Figure 24 and Figure 25). There seems to be no obvious correlation between the size of the economy and the level of trade flows. Both large countries (such as Poland and Romania) and small ones (such as Latvia and Lithuania), have low, though expanding, trade shares in GDP. Growth in exports has largely kept up with growth in imports in recent years, but trade deficits have gradually widened in Bulgaria and Romania, reflecting a combination of surging imports of investment and consumer goods.

Figure 24. Exports to GDP, 2000 and 2007 (in percent)



Source: Eurostat, World Bank staff calculations

Figure 25. Imports to GDP, 2000 and 2007 (in percent)

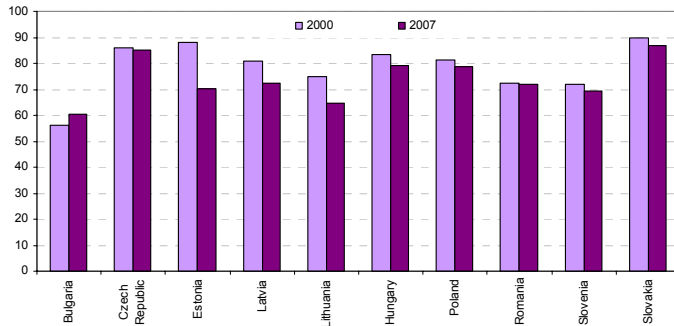


Source: Eurostat, World Bank staff calculations

The process of trade integration into the EU has substantially deepened throughout the region and the share of commerce with Western Europe is already comparable to that of the intra-EU15 trade (Figure 26 and Figure 27). The process of EU accession has played a key role in the reorientation and growth of the EU10

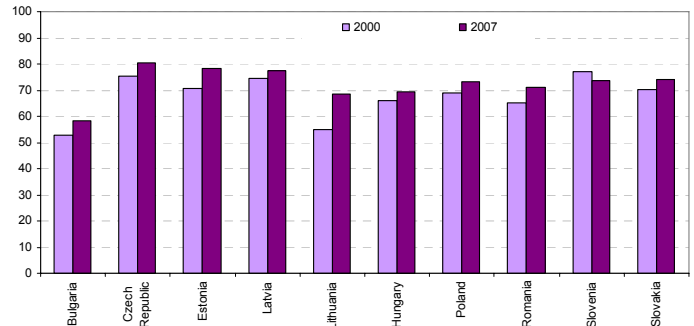
trade, with the expansion firmly anchored into the EU production and distribution chains. The gradual removal of trade barriers with the EU15 and among the EU10, together with important advances in addressing structural challenges, have considerably improved the attractiveness of EU10 as destination for global investment. The region has become a target for the relocation of companies in search of cost reductions mainly in production, but also in innovation.

Figure 26. Exports to the EU Relative to Total Exports, 2000 and 2007 (in percent)



Source: Eurostat, World Bank staff calculations

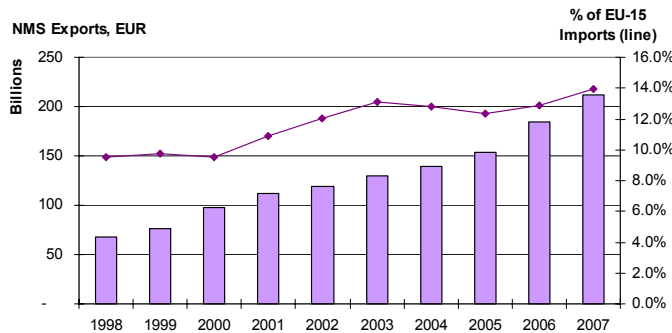
Figure 27. Imports from the EU Relative to Total Imports, 2000 and 2007, (in percent)



Source: Eurostat, World Bank staff calculations

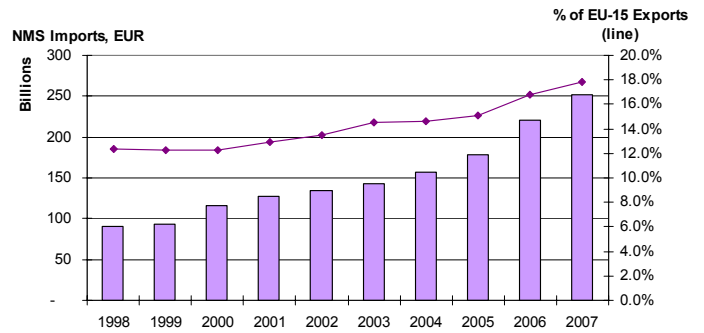
The EU10 have become a noteworthy partner of EU15 in terms of trade volumes. Exports from the EU10 to the EU15 have constantly increased this decade, tripling from about €70 billion in 2000 to more than €200 billion in 2007; the latter is equivalent to 14 percent of total EU15 imports (Figure 28). Similarly, exports from the EU15 to the EU10 currently exceed €250 billion, or 18 percent of total EU15 exports (Figure 29). The trade balance remains though tilted towards EU15, which record a yearly surplus of close to €50 billion.

Figure 28. Exports from the EU10 to the EU15



Source: Eurostat, World Bank staff calculations

Figure 29. Imports from the EU10 to the EU15

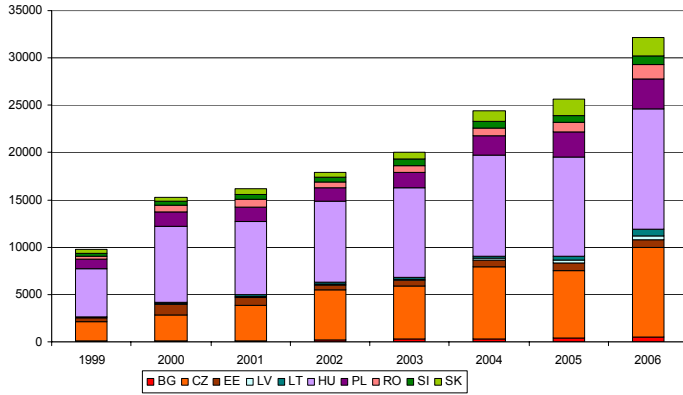


Source: Eurostat, World Bank staff calculations

The volume of high technological exports from the EU10 to the EU15 has increased threefold since 1999, but its share in total EU10 exports does not appear to have gone up visibly. Hungary and the Czech Republic account for the largest share of high tech exports, although Poland and Slovakia are gradually picking up. Evidence suggests that, as labor costs increase, countries steadily move up the value added chain, but lower tech exports still record important expansions (Figure 30 and Figure 31). This is explainable by the fact that unit labor costs in the EU10 remain well below those in the EU15, and countries in the region appear to remain competitive in labor-intensive areas.

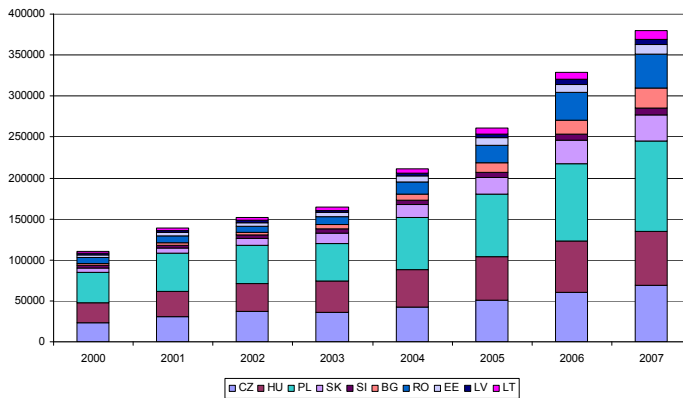
Large inflows of FDI and the accompanying import of technological and management know-how, are key contributor to the remarkable export performance. Cumulative FDI inflows to the region have increased threefold since 2000, exceeding €350 billion at the end of 2007 (Figure 32-Figure 34). Hungary, Poland and the Czech Republic have historically been the main beneficiaries, but Slovakia, Romania and Bulgaria have registered record inflows in recent years. Evidence indicates a positive correlation between FDI inflows into manufacturing and the substantial advancements in gross value added in the sector, with positive impact on exports. Imports of machinery and equipment account for a large share of total imports (larger than 30 percent in all countries, exceeding 50 percent in Hungary).

Figure 30. EU10 High Tech Exports, 1999-2006 (in millions of euros)



Source: Eurostat, World Bank staff calculations

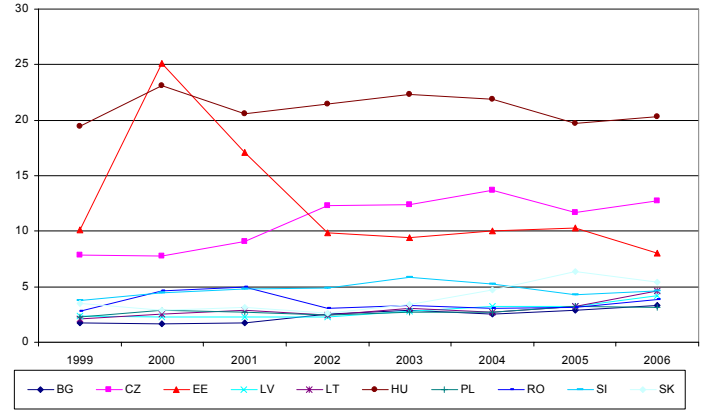
Figure 32. Inward FDI Stock in the EU10, 2000-2007 (in millions of euros)



Source: Eurostat, World Bank staff calculations

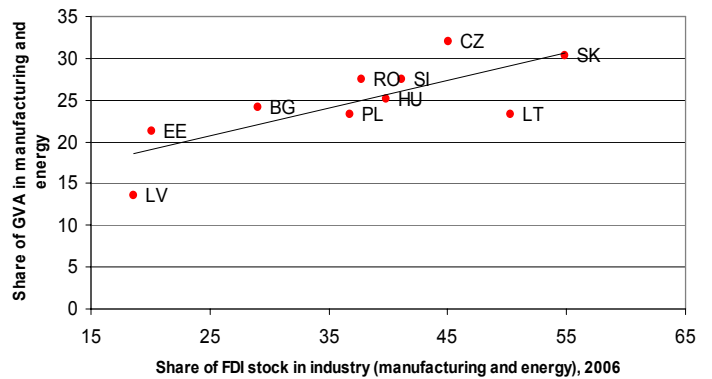
Conversely, deeper integration and alignment in trade composition with the EU15 also leave EU10 more exposed protracted to slowdown in the West European markets. The increased correlation of business cycles and the higher share of intra-industry trade could, *ceteris paribus*, have adverse implications for growth in EU10 output and exports. In the early 2000s, for example, the impressive pick up in EU10 exports to the EU was associated with a notable reorientation of the Western consumers substituting locally produced labor intensive commodities with cheaper ones from the EU10, in the context of the prolonged slowdown in the EU15. This might no longer be the case in the current economic context, pointing once more to the need of pursuing further productivity and competitiveness enhancing measures in the new EU members.

Figure 31. Share of High Tech in Total Exports by Country, 1999-2006 (in percent)



Source: Eurostat, World Bank staff calculations

Figure 33. FDI in industry as % of total FDI and GVA in manufacturing and energy as % of total GVA



Source: Eurostat, World Bank staff calculations

Figure 34. Share of machinery in total EU10 imports, 2000, 2007, (in percent)



Source: Eurostat, World Bank staff calculations



EU10 October 2008

In Focus: An Update on Labor Migration from Poland

Following a large wave of post-accession labor migration, in particular from Poland and the Baltic countries to the EU15, labor outflows seem to be weakening recently. This weakening, and in some cases reversal, reflects the increases in wages of countries where the migrants originated, which is making the incomes they earn in the EU15 less attractive. At the same time, the main destination countries are undergoing an economic slowdown, which is weakening demand for migrant workers. These forces work together to help slow migration and perhaps reverse flows in the near term, at least for some categories of workers. But a return to the regular labor market from a temporary, below-potential, lower-skill job abroad may not necessarily be easy. It is unclear how fit these migrants are to reintegrate into labor markets back home. Some of these workers, moreover, have suggested that they may go abroad again. We may be witnessing the formation of a highly mobile segment of the labor market.

Following the post-enlargement opening of selected EU15 labor markets, labor outflows from Poland and the Baltic countries intensified. Workers headed largely to Ireland and the U.K., which, together with Sweden, opened labor markets for the EU8 workers immediately after accession. These flows (also reflecting the legalization of already existing employment) may be temporary in nature and primarily supporting local labor markets during economic upturns.¹ Even though absorbed with little negative impact in the receiving countries, labor migration has had substantial impact on the sending economies, pushing up wages and adding to skill shortages. Relatively, the most significant outflow was observed in Poland and the Baltic countries.² According to estimates from the Polish government, the number of Polish nationals staying temporarily in the EU more than doubled during 2004-2007 to 1.9 million. Polish nationals are now the fourth largest national group in the UK, up from 13th place before accession.³

Migration flows to the U.K and Ireland appear to have started to weaken (Figure 35 - Figure 36).⁴ These figures are confirmed by data on the Polish side.⁵ More in-depth research, comparing the number of new registrations in the U.K. and changes to LFS-estimated stock of EU8 nationals suggest that as much as one-half of the post-accession migrants may have already left the U.K., with the pace of return accelerating during 2007 and 2008.⁶

Table 3. Temporary Migration from Poland, 2004-2007 (in thousands, end-of year stock)*

	2004	2005	2006	2007
Total	1,000	1,450	1,950	2,270
<i>of which:</i>				
EU	750	1,170	1,550	1,860
Austria	15	25	34	39
Belgium	13	21	28	31
Cyprus	.	.	.	4
Czech Republic	.	.	.	8
Denmark	.	.	.	17
Finland	0	1	3	4
France	30	44	49	55
Germany	385	430	450	490
Greece	13	17	20	20
Ireland	15	76	120	200
Italy	59	70	85	87
Portugal	1	1	1	1
Spain	26	37	44	80
Sweden	11	17	25	27
The Netherlands	23	43	55	98
U.K.	150	340	580	690
Non-EU	20	30	60	65
Norway	.	.	.	36

* Number of persons staying temporarily abroad: for years 2002-2006 more than 2 months, for 2007 more than 3 months. According to statistical office the change of methodology result in only marginal differences and data can be compared between the periods.

Source: GUS.

¹ For a more detailed analysis see World Bank Quarterly Economic Report, Labor Migration from the New EU Member States. September 2006.

² Kaczmarczyk, P., Okólski M., 2008, Economic Impacts of Migration on Poland and the Baltic states. Fafo-paper 2008:01.

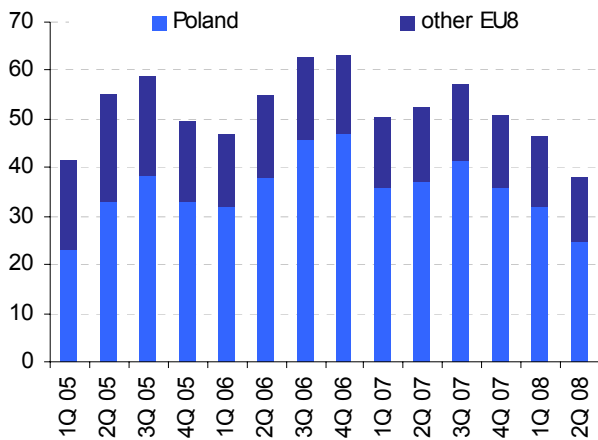
³ Britain's Immigrants. An economic profile. Institute for Public Policy Research, September 2007.

⁴ Analysis of post-accession labor migration is subject to significant data constraints, as administrative sources record only inflow and not outflow of workers. On available data sources and related shortcomings see also World Bank (2006).

⁵ See also: Information on employment of Polish nationals in the EU countries and Switzerland. Migration Department, Ministry of Labour and Social Policy, April 2008.

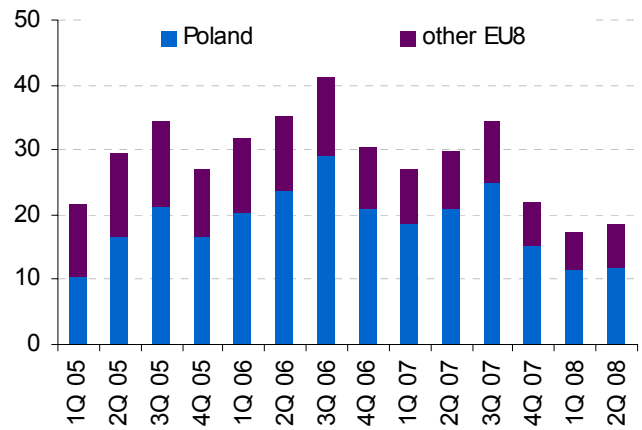
⁶ Pollard, N., Latorre M., Srisandarajah D., Floodgates or turnstiles? Post-EU enlargement migration flows to (and from) the UK. Institute for Public Policy Research, April 2008.

Figure 35. Inflow of EU8 Workers to the UK, New Applicants to the Worker Registration Scheme, (in thousands)



Source: UK Home Office (2008).

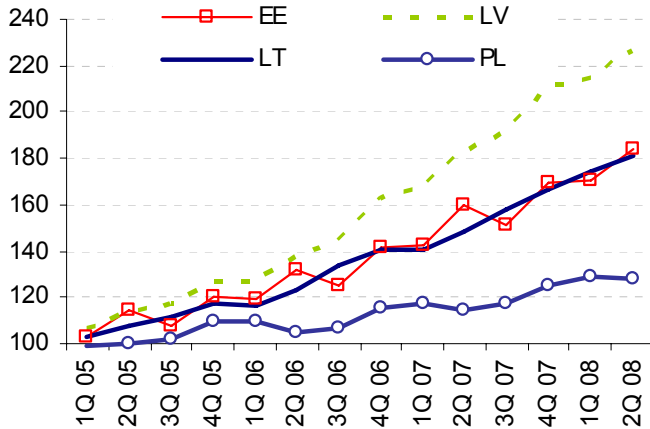
Figure 36. Inflow of EU8 Workers to Ireland, Personal Public Service Numbers issued, (in thousands)



Source: Department of Social and Family Affairs.

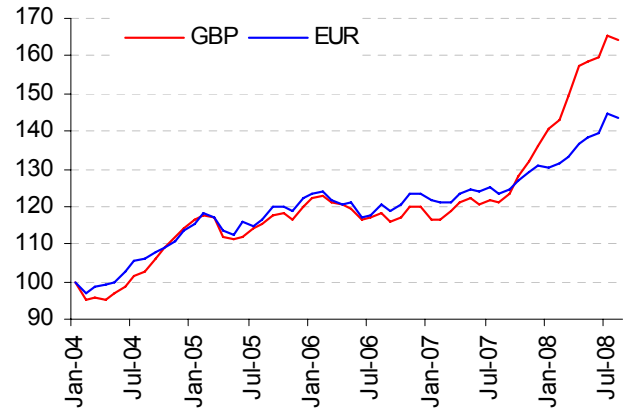
Post-accession migration has been primarily work-related. The factors driving migration have changed significantly since 2004, however. The important drivers of post-accession migratory flows include labor market disequilibria, employment opportunities and wage differentials. In this respect, labor markets in Poland and the Baltic countries have tightened significantly since EU accession.⁷ These trends have been pushing up wages, which have risen by 80 percent in Estonia and Lithuania and more than doubled in Latvia. While growth wage has been slower in Poland, overall wage differentials with the EU15 have diminished significantly given the substantial appreciation of the zloty against both the euro and the pound (Figure 37- Figure 38).

Figure 37. Average Gross Monthly Wage (in local currency, average 2004=100)



Source: Statistical offices, World Bank staff calculations.

Figure 38. Exchange Rate, Zloty/€ and Zloty/GBP, Jan 2004=100

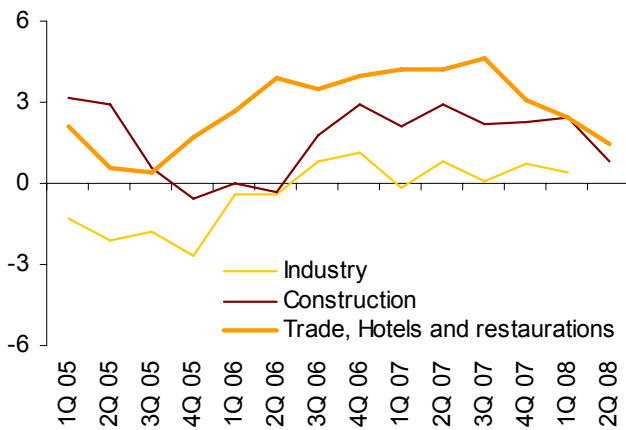


Source: Department of Social and Family Affairs.

⁷ For more details see: World Bank EU8+2 Regular Economic Report. Special Topic: Labor Markets in the EU8+2: From the Shortage of Jobs to the Shortage of Skilled Workers, September 2007.

Moreover, demand for foreign labor has significantly weakened with the economic slowdown in the main destination countries. The decision to open labor markets for EU8 nationals in the U.K. and Ireland was taken during an economic upturn in these countries, with a target to supplement domestic labor. EU8 nationals have been attracted by labor market opportunities not used by the local labor force. However, the demand for foreign labor is probably easing in both the U.K. and Ireland given the economic slowdown and the construction boom coming to an end.

Figure 40. GVA Growth in the UK, Selected Sectors (in percent, yoy)



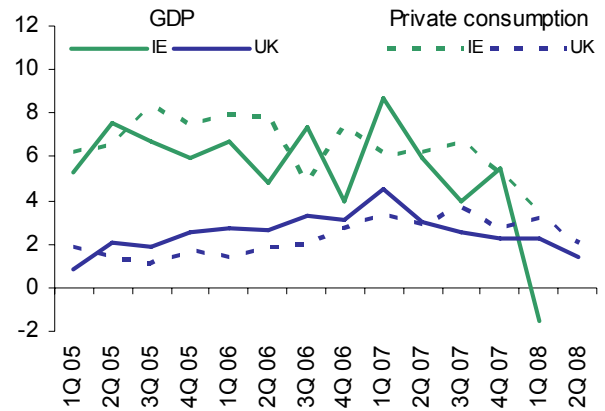
Source: Office for National Statistics.

With both supply and demand easing, EU8 migrants may be less eager to extend their stay abroad. Post-accession labor flows have been mainly short-term often undertaken to accumulate savings or support relatives in the home countries. Moreover, migrants have been generally overqualified for the jobs performed abroad: they have been relatively well-educated but performing simple jobs in typically migrant sectors such as construction, agriculture, cleaning and catering. After several years, the social aspects of the phenomenon may also be increasingly disturbing, including the “temporariness” of perspectives, low profile of performed jobs and the high cost of living. All in all, migrants may be less eager to extend their temporary stay abroad.

However, return to the regular labor market in the home countries from a temporary low-skill job abroad may not necessarily be easy. Experience abroad, useful in terms of language, culture and broadening horizons, is often not related to their professional background and does not always improve skills and job perspectives. As anecdotal evidence from Poland suggests that migrants’ potential may have not improved enough to successfully apply for higher-skills jobs in line with their education, what they seem to expect. The key question is whether these who return are to fit back into their home labor markets. The ongoing slowdown in the Baltics and other countries will complicate this adjustment.

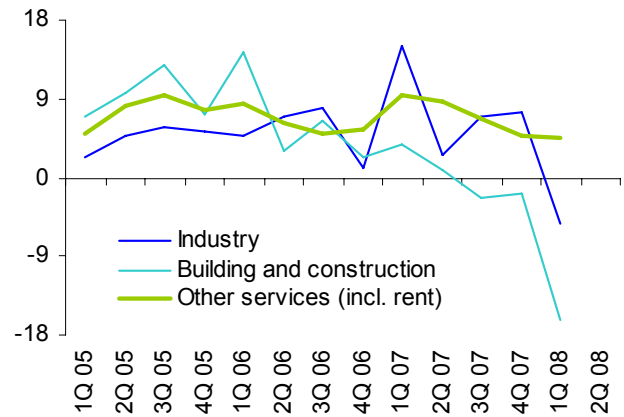
The weakening of labor flows into the U.K. or Ireland does not necessarily mean that migrants return home for long. Restrictions are being eased in other European countries and most recently some of them, as the Netherlands and Norway, have recorded intensified inflow of EU8 nationals. A survey of returned Polish migrants from the U.K. found that a third of them intend to live outside Poland again in the future. This suggests that a new segment of the labor market may be emerging, one composed of highly mobile workers ready to supplement EU15 domestic labor where demand arises.

Figure 39. GDP and Private Consumption (in percent, yoy)



Source: Office for National Statistics.

Figure 41. GVA growth in Ireland, Selected Sectors (in percent, yoy)



Source: Central Statistics Office Ireland.



EU10 October 2008

In Focus: Climate Change Agenda in the EU10: Between the Kyoto Protocol and the EU Package “3x20 by 2020”

In early December 2008, Poznań, Poland will host the 14th Conference of the Parties (COP14) to the United Nations Framework Convention on Climate Change (UNFCCC). The COP14 will be a next step in the negotiations process on the new international climate change framework. It is supposed to deliver commitments to reduce greenhouse gases (GHG) emissions after 2012, when the first commitment period of the Kyoto Protocol ends. The new international agreement is to be approved during the COP15 starting in late November 2009 in Copenhagen, Denmark.

All EU10 countries and Croatia have ratified the Kyoto Protocol, which came into force in 2005. In addition to the commitments to the Kyoto Protocol, however, the EU10 countries are subject to EU policies, especially the *Climate Action and Renewable Energy Package*, proposed by the European Commission (EC) in January 2008 in order to implement the major energy and climate decisions taken by the European Council in March 2007. During the Spring 2007 Summit, the Council committed: (a) to reduce the EU's GHG emissions by 20 percent below 1990 levels by 2020 (or 30 percent conditional on an international “post-Kyoto” agreement), (b) increase renewable energy sources (RES) to 20 percent of the EU's overall energy mix by 2020 (including a minimum of 10 percent biofuels in overall fuel consumption), (c) improve energy efficiency by 20 percent by 2020. The package of measures is referred to as “3x20 by 2020”.

The EU package extends and deepens the EU commitments to greenhouse gas emission reduction contained in the Kyoto Protocol. While the Kyoto targets are being exceeded by all EU10 countries except Slovenia (since the base year was around 1990), the new EU targets are more ambitious and will require more efforts and resources by the EU10 countries to achieve.

The Kyoto Protocol⁸

The Kyoto Protocol sets binding targets for 37 industrialized countries (including EU10+1) and the European Community for reducing GHG emissions by an average of 5 percent against 1990 levels over the five-year period 2008-2012. The Protocol was adopted in Kyoto, Japan, on 11 December 1997 and entered into force in 2005. By mid-2008, 182 Parties of the Convention⁹ (Rio de Janeiro, 1992) have ratified its Protocol, which covers 63.7 percent of global emissions in 1990. The Protocol was not ratified by the U.S.

Countries must meet their targets primarily through national measures, but the Protocol offers three (mitigating) mechanisms:

- Emissions trading (“the carbon market”),
- The clean development mechanism (CDM),
- Joint implementation (JI), supporting sustainable development through technology transfer and investment, helping countries with Kyoto commitments to reduce emissions or removing CO₂ in other countries, encouraging the private sector and developing countries (non-Annex 1 Parties) to contribute to emission reduction efforts.

Countries with Kyoto commitments (Annex 1 Parties) accepted targets for reducing emissions, which are expressed as assigned amounts over the 2008-2012 period. The allowed emissions are divided into “assigned amount units” (AAUs). They are expressed in terms of tonnes of CO₂-equivalent emissions.

Emissions trading allows countries that have emissions permitted but not “used” to sell them to countries which have problems with meeting their targets. Because carbon dioxide is the principal greenhouse gas, the market is called “carbon market.” Units other than those for actual emissions can be traded on the carbon market. These other units, each equal to one tonne of CO₂, are:

⁸ The write-up largely derives from UNFCCC website.

⁹ UN Members, both Annex 1 Parties and non-Annex 1 Parties.

- A removal unit (RMU) on the basis of land use, land-use change and forestry (LULUCF) activities such as reforestation,
- An emission reduction unit (ERU) generated by a *joint implementation* project¹⁰
- A certified emission reduction (CER) generated from a *clean development mechanism*¹¹ project.

The emissions trading systems (ETs) may be established as climate policy instruments at the national or regional level. At present, the European Union ETS (EU ETS) is the largest in operation¹².

For most countries with Kyoto commitments, the base year is 1990, but the EU10 could select another year. This option was granted for countries undergoing the process of transition to a market economy. Hence, the following choices: Bulgaria (1988), Hungary (1985-1987 on average), Poland (1988), Romania (1989), and Slovenia (1986). Base-year emissions are defined as the aggregate anthropogenic CO₂ equivalent emissions of the GHGs. Moreover, if LULUCF activities constitute a net source of greenhouse gas emissions in the base year, then net emissions from the part relating to the deforestation are included in the total national emissions for that year.

Recent available data show that most EU10 countries and Croatia will easily fulfill the Kyoto targets with a large margin. Table 4 shows that the exceptions in the regions are Croatia and Slovenia. Worldwide, by 2005, emissions were also significantly reduced in Ukraine and Russia as compared to the base year. However, the developed countries reduced emissions by much less than targeted in Kyoto (EU15 *en bloc*) or considerably increased the emissions (other developed countries).

Table 4. Kyoto Targets and Actual Emissions of GHGs (in millions of tonnes of CO₂ equivalent)

	Base year	Emissions, 2005	Reduction relative to	
			base (in percent)	2005 (in percent)
Bulgaria	132.6	70.0	-8.0	-47.2
Croatia	31.6	30.5	-5.0	-3.4
Czech Republic	196.2	145.6	-8.0	-25.8
Estonia	42.6	20.9	-8.0	-50.9
Hungary	115.7	80.2	-6.0	-30.7
Latvia	26.4	10.9	-8.0	-58.9
Lithuania	49.4	22.7	-8.0	-54.1
Poland	586.9	399.0	-6.0	-32.0
Romania	282.5	153.7	-8.0	-45.6
Slovakia	72.1	47.9	-8.0	-33.6
Slovenia	20.3	20.4	-8.0	0.4
EU 15	4257.8	4192.6	-8.0	-1.5
Australia	418.3	525.4	8.0	25.6
Canada	596.0	746.9	-6.0	25.3
Japan	1272.0	1359.9	-6.0	6.9
New Zealand	61.9	77.2	0.0	24.7
Russian Federation	2989.8	2132.5	0.0	-28.7
Ukraine	923.8	418.9	0.0	-54.7
United States	6229.0	7241.5	...	16.3

Sources: Eurostat, UN and World Bank staff. Note: Without LULUCF in 2005 in selected Annex 1 Parties

EU Climate Action and Renewable Energy Package¹³

The EU Package includes four main elements:

1. An expansion of the “cap and trade system”¹⁴ (EU ETS) in the Phase III (2013-2020) and new EU-wide rules to harmonize the allocation of emission allowances (AU) across the Member States (ETS sectors, mainly energy, account for about 40 percent of EU GHG emissions),

¹⁰ A JI project must provide a reduction in emissions by sources, or an enhancement of removals by sinks, that is additional to what would otherwise have occurred. Projects starting as from the year 2000 may be eligible as JI projects, but ERUs may only be issued for a crediting period starting after the beginning of 2008.

¹¹ Since 2006, the mechanism has registered more than 1,000 projects and is anticipated to produce CERs amounting to more than 2.7 billion tonnes of CO₂ equivalent in 2008-2012. Also, CO₂ Capture and Storage (CCS) is treated as a CDM activity.

¹² In the summer of 2008, the UNFCCC secretariat and the EC successfully tested the linking of UNFCCC's International Transaction Log (ITL) and the Community Independent Transaction Log (CITL), together with the EU member States national registries and some registries of non-EU countries. The linking of EU's registries and CITL to UNFCCC's ITL can start in the first half of October 2008.

¹³ Proposed by the EC on 23 January, 2008

¹⁴ Recent WB paper discusses the design of CO₂ taxes at the domestic and international level and the choice

2. **Individual emission reduction targets**, as compared to 2005 as a base year, at the Member State level for **sectors not covered by the EU ETS**, covering sectors such as: transport, construction, services, smaller industrial energy installations, agriculture, and waste (Non-ETS sectors). They account for about 60 percent of EU GHG emissions¹⁵,
3. **Legally enforceable renewable energy targets** for Member States,
4. **New guidelines on carbon capture and storage (CCS) and environmental state aid.**

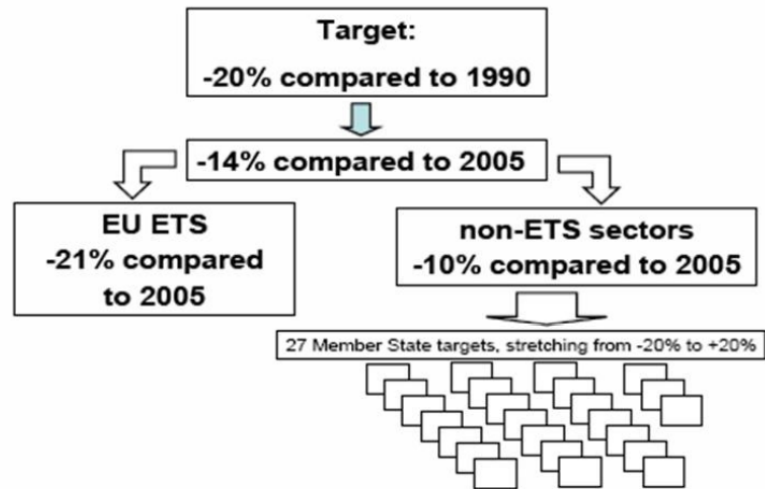
To meet the EU-wide target by 2020, a 14 percent reduction of CO₂ emissions is required as compared to 2005 levels. Figure 42 demonstrates the breakdown of EU's 2020 targets, as proposed by the EC. The way to achieve a 21 percent emissions reduction in EU ETS sectors is presented in Table A1 in the Annex, while the breakdown of individual targets for non-ETS sectors, renewable energy, and biofuels is presented in Table 5, Columns 2-4. Moreover Table A2 in the Annex envisages the breakdown into ETS and non-ETS sectors.

In the region, the fulfillment of the GHG reduction targets will be the most challenging for countries generating a vast majority of electricity production based on coal (Poland, Estonia, the Czech Republic, Bulgaria), especially if they cannot rely on diversified energy sources including nuclear energy (see Table 5, Columns 7-8). If an enterprise (ETS installation) does not surrender enough allowances to cover its emission, it will have to pay a penalty of €40 per ton of CO₂ emissions between 2005 and 2007 and €100 from 2008.¹⁶

The expansion of the EU ETS is a key element of the EU package. In line with the EC proposal, the EU ETS will include GHGs other than CO₂ and all major industrial emitters. The power sector - contributing most to EU emissions - will face full auctioning from 2013. Other industrial ETS sectors and aviation will step up to full auctioning gradually, although an exception may be made for sectors particularly vulnerable to competition from producers in countries without comparable carbon constraints (carbon leakage). In addition, auctions will be open, thus any EU operator will be able to buy allowances in any member state. Revenues from the ETS will add to member states' revenues in proportion to the emissions traded through the national system, and should be used in part to help the environmental EU goals. Part of the revenues should also go towards helping developing countries adapt to climate change. The EC estimates that revenues from the auctions could amount to €50 billion a year by 2020.

While the EU is committed to reducing emissions in non-ETS sectors by 10 percent between 2005 and 2020, the EU10 countries are allowed to increase their emissions by a range from 4 percent (Slovenia) to 20 percent (Bulgaria) (Table 6, Column 2). The EU10's shares of renewables in final energy demand are to increase from a current range of less than 4 percent in Hungary to 35 percent in Latvia to a range of 13 percent

Figure 42. Illustration of EU's 2020 climate change and energy targets



Source: A note by PEW Center on Global Climate Change, European Commission's Proposed "Climate Action and Renewable Energy Package" January 2008.

of taxes versus a cap-and-trade system. There is a strong case for taxes on uncertainty, fiscal, and distributional grounds, though this critically hinges on policy specifics and how revenues are used (see more in: Joseph E. Aldy, Eduardo Ley, and Ian Parry, *A Tax-Based Approach to Slowing Global Climate Change*, World Bank, PREMEconomics of Climate Change Discussion Paper No. 1, August 2008.

¹⁵ The EC proposed individual targets for Member States based on incomes per capita. The targets range from +20% to -20% relative to 2005. All EU10 may increase their emissions.

¹⁶ Some or all of these costs (or costs of allowances acquired through auctions, in particular in Phase III) may be shifted to consumers, leading to significant increase of electricity prices and overall inflation.

in Hungary to 42 percent in Latvia. The 10 percent biofuels target will require significant progress, as currently they account for less than 0.6 percent of overall fuel consumption (2005 data).

Table 5. EU10 individual 2020 targets for Non-ETS Sectors and renewable energy and actual 2005 data for EU10 (in percent)

	2020 target for non EU ETS	Renewables 2020 target	Biofuels 2020 target	Share in 2005 of		Share in 2005 of electricity from	
				renewables	biofuels	coal	nuclear
1	2	3	4	5	6	7	8
Bulgaria	20	16	10	9.4	0	40.6	42
Czech Rep.	9	13	10	6.1	0	59.2	29.9
Estonia	11	25	10	18	0	91.2	0
Hungary	10	13	10	4.3	0.1	19.6	38.7
Latvia	17	42	10	34.9	0.3	0	0
Lithuania	15	23	10	15	0.2	0	69.9
Poland	14	15	10	7.2	0.5	91.4	0
Romania	19	24	10	17.8	0	36.9	9.3
Slovakia	13	14	10	6.7	0.6	17.6	56.4
Slovenia	4	25	10	16	0	34.9	38.9
EU27	-10	20	10	8.7	...	28.6	29.5

Source: World Bank staff based on Eurostat data and EC documents.

Note: Targets are set as compared to 2005; targets for renewables refer to the share in the final energy demand, for biofuels to the overall fuel consumption.

The first tensions between EC proposals and national commitments of some EU10 countries emerged in the context of allocation caps for EU ETS sectors in the II Phase (2008-2012) of the EU ETS implementation, as specified in the National Allocations Plans (NAPs). The period is consistent with the Kyoto protocol reporting period. The NAPs were submitted to the EC in late 2006 and then the EC provided its assessments and communicated decisions in 2006-2007. After the first assessment round, Latvia, Lithuania and Slovakia submitted amended proposals, which were only partially accepted in the EC's second decisions. Table 6, column 3, shows the final decisions by the EC from 2007. In general, the EC requested reducing the allocations proposed in the NAPs by one-quarter. The EC decisions are binding for the EU Member States, but the *Acquis Communautaire* foresees some "revoking procedures". Poland has filed to sue the EC in the European Court of Justice, but a verdict has not yet been taken.

Table 6. Annual allocations of emissions allowances for 2008-2012 (in million tonnes of CO2 equivalent)

	ETS sectors emissions, 2005	NAP proposal of annual CO2 emissions, 2008-2012	EC assessment, 2007	Difference	EC decision as compared to the NAP <i>(in percent)</i>
	1	2	3	4=Col3 - Col2	5
Bulgaria	40.6	67.6	42.3	-25.4	-37.5
Czech Rep.	82.5	101.9	86.8	-15.1	-14.8
Estonia	12.6	24.4	12.7	-11.7	-47.8
Hungary	26.0	30.7	26.9	-3.8	-12.4
Latvia	2.9	6.3	3.4	-2.8	-45.2
Lithuania	6.6	11.0	8.9	-2.2	-19.7
Poland	203.1	284.6	208.5	-76.1	-26.7
Romania	70.8	95.7	75.9	-19.8	-20.6
Slovakia	25.2	34.9	32.6	-2.3	-6.5
Slovenia	n.a.	8.3	8.3	0.0	0.0

Source: NAPs and the EC's assessments and decisions.

The EU proposals discussed briefly in this note go beyond the Kyoto Protocol (Table 7). The EC proposal has significant and differentiated implications for all EU Member States, including the EU10. The EC proposal demonstrated its commitment to participate actively in the climate change agenda. It is an important step in negotiations on the “post-Kyoto” international agreement, which is to be adopted during the COP15 in Copenhagen in late 2009.

Table 7. Main Differences between the Kyoto Protocol and the EU Package

	Kyoto Protocol	EU Package “3x20 by 2020”
Commitment Period	2008-2012 average	2005-2020, II Phase of EU ETS implementation is consistent with the Kyoto period
Base Year for abatement commitments	1990, with some exceptions	1990 at political level, and 2005 for specific commitments on ETS volume, share of RES, emission changes of non-ETS sectors, and biofuels
Sector Specification of Emission Allowances	No, only overall country-wide targets	Yes, major breakdown into ETS (in particular, energy) and non-ETS sectors. Reallocation between the two sector groups or backloading reductions into later years is not permitted
Gas coverage	Carbon dioxide (CO ₂), Methane (CH ₄), Nitrous oxide (N ₂ O), Hydrofluorocarbons (HFCs), Perfluorocarbons (PFCs) and Sulphur hexafluoride (SF ₆)	Several GHGs

Annex: Table A1. EU ETS Phasing-in Process

	I Phase 2005-2007 CO ₂ only	II Phase 2008-2012 CO ₂ , N ₂ O, PFC	III Phase 2013-2020 CO ₂ , N ₂ O, PFC
Years covered			
GHGs coverage			
Sectors covered	Power stations and other combustion installations, oil refineries, coke ovens, iron and steel, cement, glass, lime, bricks, ceramics, and pulp, paper and board. Sectors not covered in I Phase: petrochemicals, ammonia, aviation (2011 or 2012), aluminum, nitrous oxide (N ₂ O) from acid production, perfluorocarbon (PFC) from the aluminum sector.		
Emission Caps for ETS sectors	National target levels	National target levels	EU-wide, at 9 percent below 2005 level in 2013, declining linearly to 21 percent below 2005 levels in 2020
Auctions	Allowances allocated for free, a maximum of 5 percent of allowances on auctions	Allowances allocated for free, a maximum of 10 percent of allowances on auctions	100 percent of allowances in the power sector in 2013. 80 percent of allowances will be allocated for free in other ETS sectors in 2013 and declining to 0 percent (full auctioning) in 2020.
Allocation of Allowances	By country, as specified in National Allocation Plans (NAPs), and approved by the European Commission		
Use of credits	Yes	Yes	Credits from the CDM and JI only from projects approved before 2012 and only through 2014. Additional use of credits if a new international agreement is reached
ETS reserve			5 percent of allowances for new market entrants, except in the electricity sector

Annex: Table A2. Breakdown into sectors, relevant in the context of the EU Energy and Climate Change Package

	ETS sectors (by installation)		Non-ETS sectors
Share in EU27 CO₂ emissions in 2005	40%		60%
Sectors / branches in the economy	Power Power stations and other combustion installations	Non-power Oil refineries, coke ovens, iron and steel, cement, glass, lime, bricks, ceramics, and pulp, paper and board, petrochemicals, ammonia, aviation (probably from 2011 or 2012), aluminum, acid production, aluminum sector.	transport, construction, services, smaller industrial energy installations, agriculture, and waste