

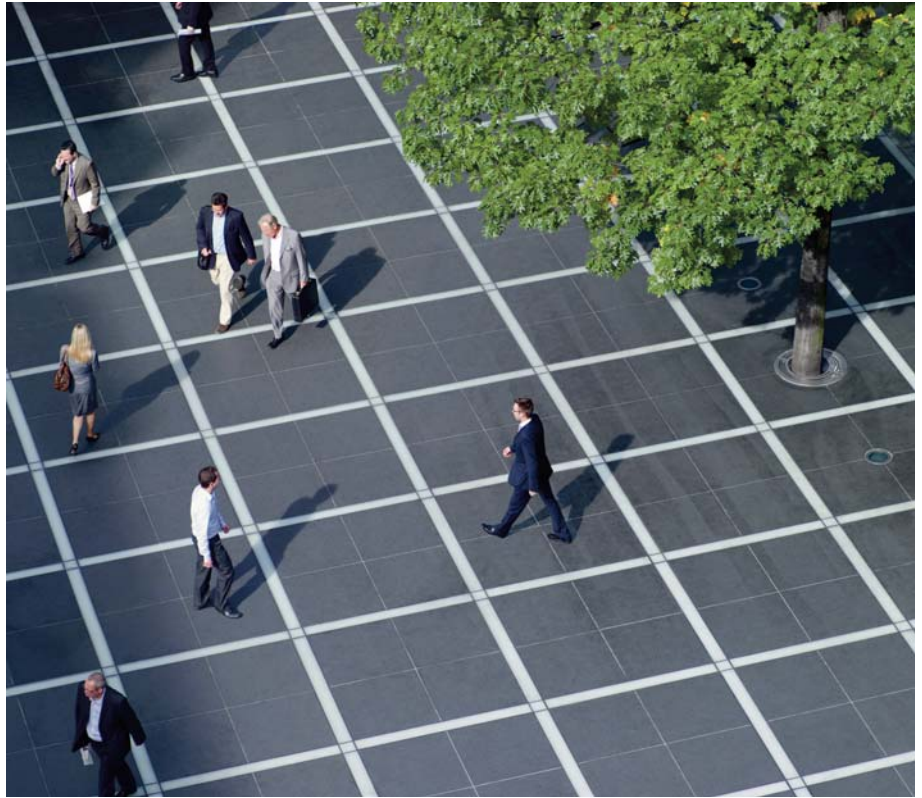


Competition, Cooperation, European Solidarity

Central and Eastern Europe 2004-2011

21st Economic Forum

*Krynica Zdrój, Poland
7-9th of September, 2011*



For the third time PwC presents to the Economic Forum in Krynica a report on the economic development of the Central and Eastern European (CEE) countries.

After previous reports, devoted to the problems of the region's response to the global financial crisis, the current analysis represents an attempt to assess the overall performance of the CEE countries over the last seven years.

There are good reasons to do it right now. It has been seven years since the first group of CEE countries joined the European Union in 2004. Defining mutually advantageous relations with the EU has been always seen as a great chance, but also a great challenge for the region. Majority of the countries were consequently heading towards the full membership, some other – like Russia – were searching for an enhanced cooperation while staying outside the Union. After a seven year membership experience, it is a right time to assess the economic consequences of various choices.

The 2004-11 septennium proved to be very turbulent. The CEE countries were faced both with the chances of an accelerated growth during the first half of the period, as well as with the problems of economic instability during the global financial crisis. Analysing their experience and drawing the right conclusions about the future path of reforms may contribute to the development success.



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Abbreviations:

CEE – Central and Eastern Europe

EBRD – European Bank for Reconstruction and Development

ERDF – European Regional Development Fund

ESF – European Social Fund

EU – European Union

EU-15 – West European EU Member States (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, the UK)

EU-CEE10 – new EU Member States from CEE (Poland, the Czech Republic, Hungary, the Slovak Republic, Slovenia, Estonia, Latvia, Lithuania, Romania, Bulgaria)

FP7 – 7th Framework Programme of the EU for the funding of R&D in Europe

GDP – Gross Domestic Product

FDI – Foreign Direct Investments

IMF – International Monetary Fund

LLL – Life Long Learning

Non-EU-CEE – CEE countries that are not EU members in 2011

R&D – Research and Development

TEN – Trans-European Networks

UNCTAD – United Nations Conference on Trade and Development

Executive Summary

- The economic development of the CEE countries over the last 7 years was taking place under extremely volatile conditions and was marked by dramatic turning points. In spite of this, the region recorded a significant growth of per capita income, as well as a progress in modernization of the economy. Strengthening economic ties with the EU, in many cases leading to the membership in the block, was one of the most important factors behind the recorded changes.
- A general assessment of the economic performance of the CEE countries in the 2004-2011 period is not simple. On the one hand, the region recorded a significant increase in the GDP, much faster than the Europe's average. On the other hand, however, it was painfully hurt by the global financial crisis.
- The GDP growth recorded in the EU-CEE10 countries led to a certain reduction of the income gap vis-à-vis Western Europe. The GDP per capita levels in the year 2011, as forecasted by the IMF, range from 35–38% of the EU-15 average in the Balkan states and 43% in Latvia, 52–66% in the Baltic states, Poland, Slovakia, and Hungary, to 73% in the Czech Republic and 82% in Slovenia. The GDP per capita levels recorded in the other CEE countries were, generally speaking, lower than in the EU Member States.
- The most important factor behind the growth of the EU-CEE10 countries after the EU accession was the enhanced investment attractiveness, leading in turn to the rapid increase of exports. Much less of this phenomenon was observed in other CEE countries, albeit the FDI inflows increased significantly as well. Patterns of the economic growth observed in the EU-CEE10 led to the strengthening of links with Western Europe, making the region more vulnerable to the market situation in EU-15. In the case of Eastern Europe, the main worry is the export monoculture, heavily dependent on the energy and energy-intensive production.
- The accession to the EU led to the gradual opening of the labour markets of Western Europe to workers from the CEE countries. As a result, significant migration flows emerged, with both positive and negative consequences for the region.
- Economic performance of the CEE countries during the global crisis astonishingly varied, with Poland recording Europe's record-high growth, and the Baltic states recording Europe's record-high fall of GDP. The scale of the shock experienced during the crisis depended to a big degree on the need to rebalance the economy due to financial constraints. That, in turn, was a function of the financial imbalances built before the crisis.
- The EU membership allowed the EU-CEE10 countries to improve infrastructure considerably. Much less of the progress was observed in other CEE countries that do not benefit from the EU financial support for the infrastructure development.
- In the area of business climate, the progress was less spectacular. The EU-CEE10 countries strengthened public institutions and struggled quite successfully against corruption, but recorded only a limited success in fighting bureaucracy. In other CEE countries, the path of improvement was even slower.
- Inflow of the EU development funds represented one of the most important factors shaping the economic situation in the EU-CEE10 countries. The inflows have been constantly increasing, reaching over 2% of the region's GDP in 2009.
- Structural and cohesion funds played important role for infrastructural investment in most of the EU-CEE10 countries, financing from 5 to 20% of this investment before the financial crisis, and from 10 up to 50% in 2009. Results of this investment are already strongly visible in all countries, particularly in the transport infrastructure.
- Less success was observed in using EU funds for human capital development, as well as for stimulating the domestic R&D.
- Despite a significant progress recorded in the last 7 years, many questions concerning the future development of the region and its future role in the EU remain open.
 - First, the future enlargement process is unclear. Apart from Croatia, other West Balkan countries may wait for many years for the membership. As far as the Eastern European countries are concerned, joining the EU, albeit imaginable in a distant future even in the case of Russia, seems to be ruled out over the current decade.
 - Second, a disagreement prevails over the size and the distributive role of EU budget in the 2014–2020 Financial Framework. The financial crisis, leading to austerity policies at home, made the biggest net payers to the EU budget even less eager to accept such a position in future. As a result, the resources spent on the cohesion policy could be visibly reduced.
 - Third, European solidarity will soon be tested in some other vitally important areas, including sharing the burden of the EU climate policy costs, as well as in the area of energy security.
 - Fourth, another field of a possible conflict is created by proposals to make a bigger part of the EU funds available for every Member State, based on an open competition. As the experience from the R&D funding suggests (already distributed in such a way), the efficiency of the CEE members in acquiring funds in a competitive process is quite limited. Obviously, one has to take into account the fact that the R&D area is quite peculiar. It is, however, a worrying experience that has to be taken into account when discussing the future of the EU financing mechanisms.

Introduction: the Turbulent 2004-2011 Septennium

The economic development of the Central and Eastern European countries (CEE) over the last 7 years was taking place under extremely volatile conditions and was marked by dramatic turning points.

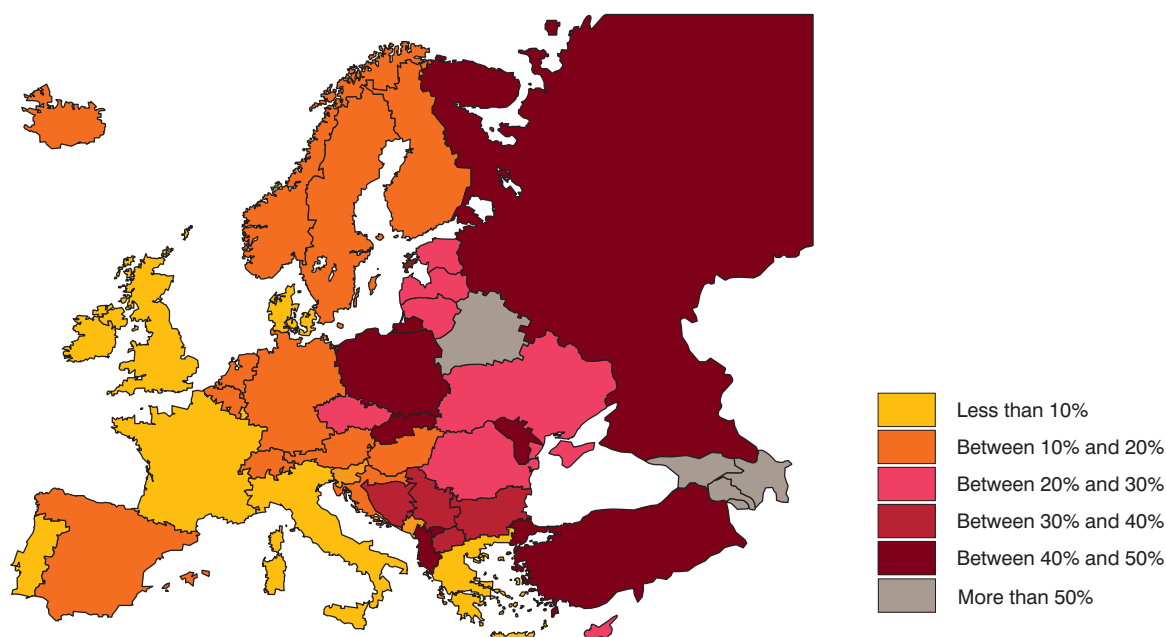
In spite of this, the region recorded a significant growth of per capita income, as well as a progress in modernization of the economy. Strengthening economic ties with the European Union (EU), in many cases leading to the membership in the block, was one of the most important factors behind the recorded changes.

The countries of the region started building the market economy during the 1990s, after the collapse of the communist system. Early reforms proved to be extremely difficult, leading to a significant fall of output, and creating serious hardship for the societies. In spite of this, and despite different pace at which the reforms had been introduced in various countries, by the end of the century all CEE countries entered the path of the economic growth. Nevertheless, some questions regarding the sustainability of the growth remain unanswered, and the income gap vis-à-vis Western Europe remains huge.

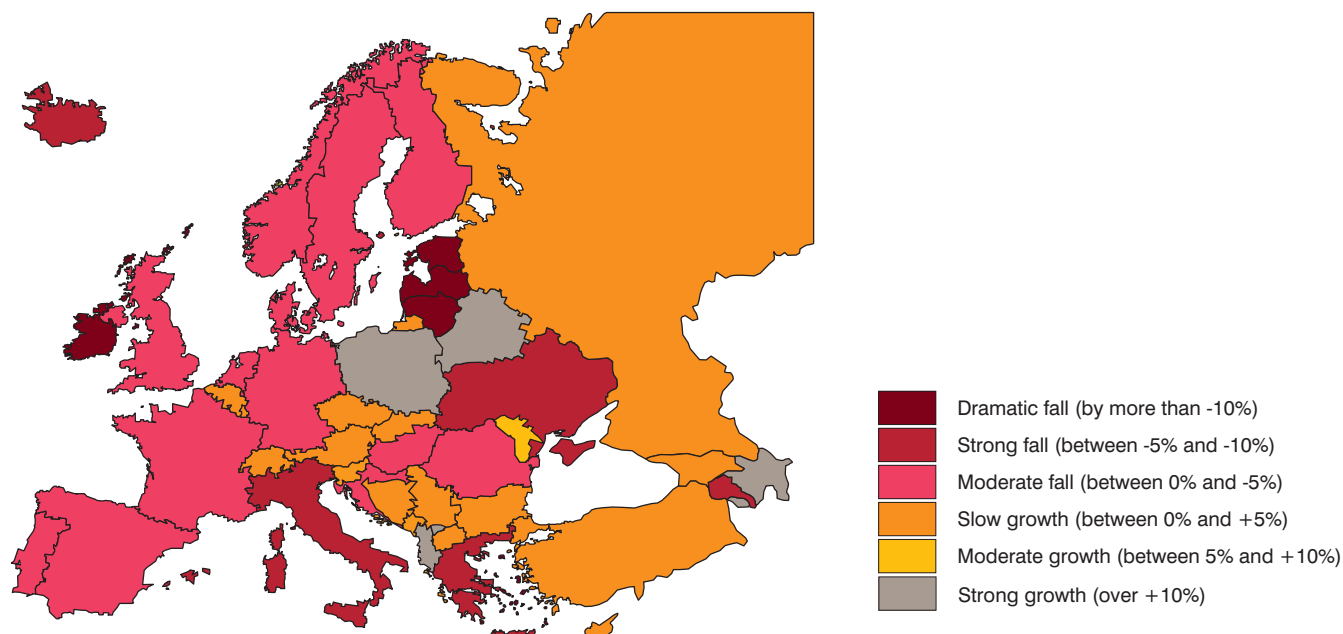
Moreover, various paths of the transition led to the creation of various models of market economy in the CEE countries, with various prospects for future growth.

A general assessment of the economic performance of the CEE countries in the 2004-2007 period is not simple. On the one hand, the region recorded a significant increase in the GDP, much faster than the Europe's average. The total GDP in the CEE region increased by 30% over the 7 year period (with an average growth of 3.8% per year), while the GDP increase in Western Europe was below 8% (1.1% yearly average growth). The average GDP per capita of the CEE countries, measured at the purchasing power (i.e. taking into account differences in the price levels), increased from 40% of the West European level in 2004 to 48% in 2010. In other words, the income gap between Eastern and Western Europe significantly narrowed, albeit still remains huge.

Cumulate growth of GDP in Europe, 2004-2010



Source: IMF, EBRD



Source: IMF, EBRD

On the other hand, however, the CEE region was painfully hurt by the global financial crisis. After the robust development in the 2004-2008 period, the global recession of 2009 resulted in the GDP fall in all countries of the region except Poland. In some cases, particularly the Baltic states, the recorded output contraction was dramatic and belonged to the most severe in the world. Altogether, although majority of the CEE countries have already exceeded the pre-crisis GDP levels, the financial stability of the region was put into question, and the economic growth slowed down significantly in the whole 2008-2010 period. One should also note that economic performance of the CEE countries during this period astonishingly varied, with some countries recording Europe's record-high growth, and some other recording Europe's record-high fall of GDP.

One may conclude that the following four factors influenced the development of the CEE region over the whole 2004-2011 period the most:

- Finishing the process of transition to fully-fledged market economy in majority of the CEE countries, confirmed by the EU membership of 10 CEE countries and graduation of several countries in the EBRD, World Bank, and IMF classifications. Obviously, as the path of reforms was uneven, several CEE countries are still lagging behind the others.
- Robust economic growth recorded during the first years of the membership in the CEE countries that joined the EU, fuelled by increased investment attractiveness, growing competitiveness, and generous EU development assistance.
- Robust economic growth of Russia until 2008, fuelled by booming prices of oil and raw materials.
- The global financial crisis and the global recession of 2009, putting enormous pressure on the banking sector of the CEE countries, undermining their financial stability, and undercutting the economic growth.



*Economic performance,
2004-2010*

The growth record

EU-CEE10: countries benefit from the accession and suffer during the crisis

EU accession of the 10 countries (EU-CEE10) that joined the block either in 2004 (the Czech Republic, Hungary, Poland, Slovakia, Slovenia, Lithuania, Latvia, Estonia) or in 2007 (Bulgaria and Romania) led to the acceleration of the GDP growth.

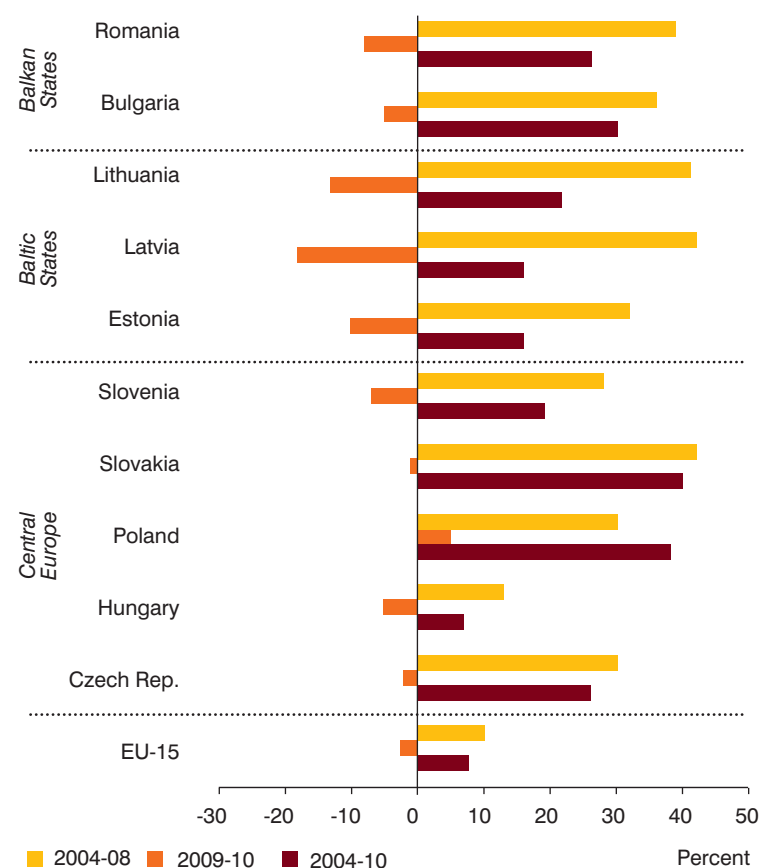
This phenomenon was visible during the first 5 years of their membership (3 years in the case of Bulgaria and Romania), with the GDP increase ranging from 13.5% in Hungary to 42.2% in Slovakia, compared to 10% in Western Europe. The fastest growth was recorded in the Baltic states, the Balkan states, and Slovakia, slightly lower in Poland, the Czech Republic, and Slovenia. Hungary was clearly an outlier, mainly due to grave policy errors committed in the 2002-2006 period (excessive fiscal deficits) and a radical adjustment programme implemented in 2007-2008.

Unfortunately, favourable conditions for the growth abruptly ended in 2008-2009, when the global financial crisis broke up. Situation of various EU-CEE10 countries radically diversified.

The economies of the Baltic states, which had recorded the fastest growth and the biggest degree of overheating before the crisis, sharply contracted (by 11-18% in the 2009-2010 period). The scale of recession was smaller in the Balkan states, Slovenia, and Hungary (GDP fall of 6-8%). The Czech Republic and Slovakia, less exposed to violent financial turbulences, recorded only a limited decrease in output (GDP fall of 1-2%).

Poland, as the only country in the EU, avoided the recession during the global financial crisis thanks to the combination of skilful economic policy, relatively small exposure to exports, flexible exchange rate policy, and high financial stability.

Growth of GDP in EU-CEE10, 2004-10 (in constant prices)



Source: European Commission, IMF

Non-EU-CEE: countries grow strongly before the crisis, but have to face serious turbulences

The CEE countries that remained outside the EU (Non-EU-CEE) were also recording a very good growth performance in the 2004-2008 period. However, the factors behind this growth differed from those in the EU-CEE10. The decisive factor in Eastern Europe was a favourable situation on the global markets of raw materials. After the collapse in late 1990s, oil prices increased almost 4 times between 2004 and the pre-crisis peak in July 2008. Therefore, the Russian economy was booming, and the GDP increased by over 40%.

A similar phenomenon was observed in Ukraine – the country finally managed to stabilize its economy and enter a path of strong growth after years of decline. The performance of Belarus, strongly connected with Russia, was exceptionally good. However, many questions exist about both the sustainability of growth as well as the quality of the statistics.

The situation reversed during the global crisis. Huge drop in oil prices and the demand for raw materials pushed Russia into a deep recession. Even more dramatic fall of output was recorded in Ukraine, mainly due to the initial level of instability and financial vulnerability of the country. Belarus continued economic growth in the

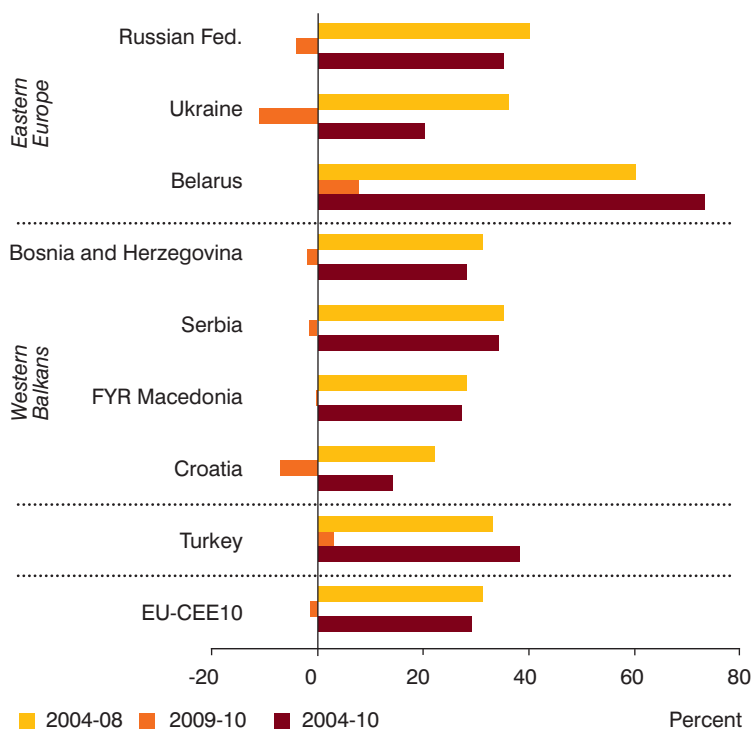
2008-2009 period at the price of growing imbalances that led to the collapse in 2011.

The sources of growth in the Western Balkans were different. Those countries benefited from the consolidation that followed a long period of political and economic instability. Recorded growth rates were matching the ones of the EU-CEE10 and of Turkey, with the exception of the weaker performance of Croatia. Albeit the global financial crisis led to a painful slowdown, the West Balkan countries managed to face difficulties relatively well.

“The EU enlargement has created, first of all, huge business opportunities in Central and Eastern Europe. We have seen a lot of investment coming to this region, a lot of multinational firms establishing their offices here, and a lot of local firms rapidly developing their European sales. And, most likely, this game is not over yet.”

Jacek Socha, Vice President PwC Poland, Former Minister of Treasury

Growth of GDP in Non-EU-CEE, 2004-10 (in constant prices)

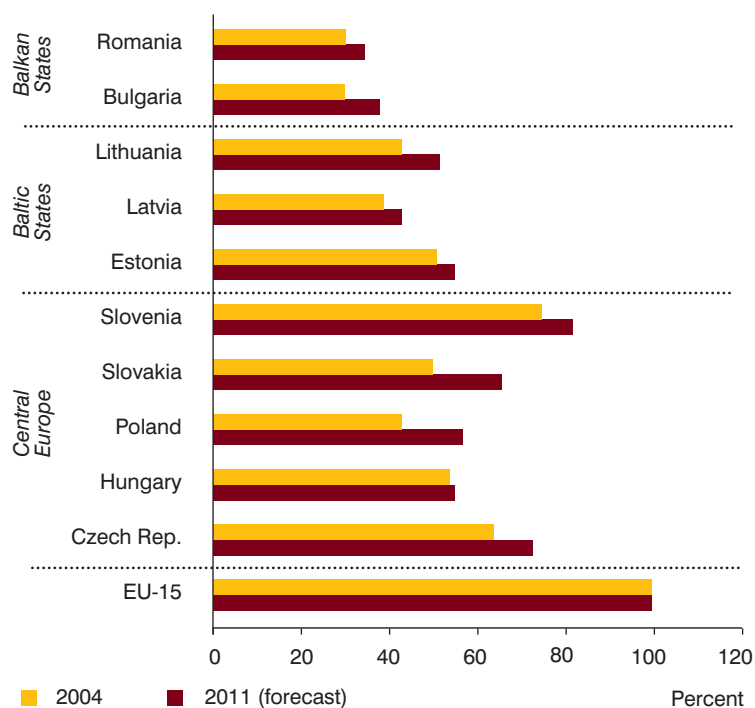


Source: European Commission, IMF

EU-CEE10: the gap vis-à-vis Western Europe shrinks, but remains huge

Faster GDP growth recorded in the EU-CEE10 countries led to a certain reduction of the income gap vis-à-vis Western Europe. In 2004, the GDP per capita measured at the purchasing power parity and compared to the level recorded in the old Member States (EU-15) ranged from 30% in the Balkan states, 39-54% in the Baltic states, Poland, Slovakia, and Hungary, to 64% in the Czech Republic, and 75% in Slovenia.

GDP per capita of EU-CEE10 compared to EU-15 (at Purchasing Power Parity)

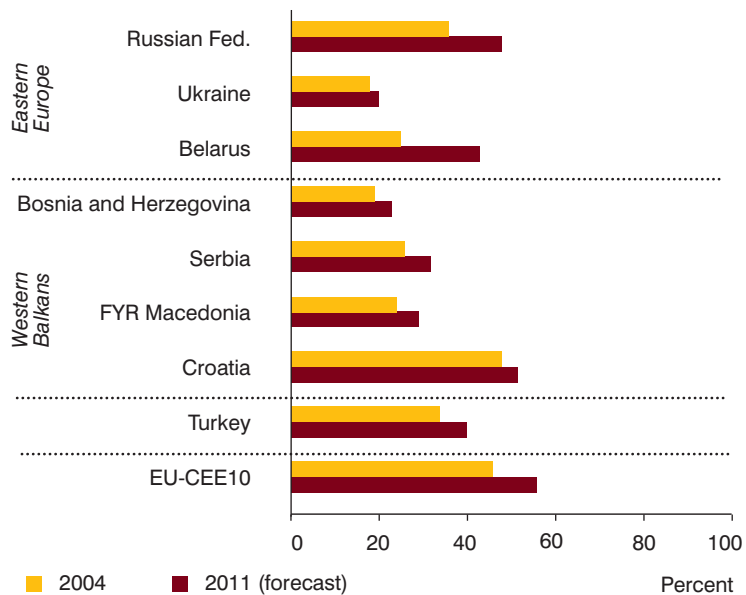


Source: European Commission, IMF

The GDP per capita levels for the year 2011, as forecasted by the IMF, range from 35-38% of the EU-15 average in the Balkan states and 43% in Latvia, 52-66% in the Baltic states, Poland, Slovakia, and Hungary, to 73% in the Czech Republic and 82% in Slovenia.

The biggest improvement, by more than 10 percentage points, was recorded in Poland and Slovakia, and the slowest one, by a mere 1 percentage point, in Hungary. On the average, the countries of the region reduced the distance to Western Europe by 8 percentage points.

GDP per capita of Non-EU-CEE compared to EU-15 (at Purchasing Power Parity)



Source: European Commission, IMF

Non-EU-CEE: more modest income levels, but increasing as well

The GDP per capita levels recorded in other CEE countries were, generally speaking, lower than those in the EU Member States. However, the economic growth led to the improvement of the situation in the 2004-2010 period.

In Eastern Europe, the gap vis-à-vis Western Europe was quite big in 2004. The GDP per capita amounted to 18-25% of the EU-15 average in Belarus and Ukraine, and 37% in Russia. Both Russia and Belarus recorded a spectacular progress, with the IMF forecasted GDP per capita levels increasing to, respectively, 48% and 43% of the West European levels by the year 2011. The progress recorded in Ukraine was, unfortunately, only marginal (increase to 20% of the EU-15).

The GDP per capita levels recorded in the West Balkan countries were also much lower than in the EU-CEE10, with the exception of Croatia. However, all the countries recorded a certain progress in this area, reducing the gap by 4-6 percentage points.



Patterns of the growth

EU-CEE10: increased investment attractiveness

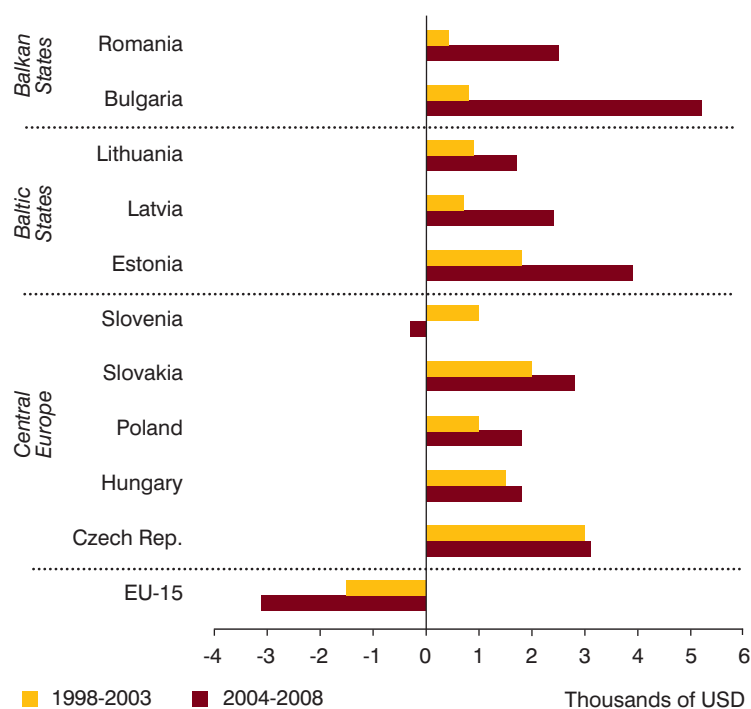
The most important factor behind the growth of the EU-CEE10 countries after the EU accession was the enhanced attractiveness as the place for investment location. According to available UNCTAD statistics, the total inflow of FDI to these countries increased from USD 116 billion in the 6-year period before the accession to USD 243 billion in the 6-year period after the accession (2004-2009).

The capital was mainly originating from Western Europe, and was going both to the export-oriented manufacturing sector, as well as to the domestic market-oriented sector of services. The biggest FDI flows went to Poland, followed by Romania, Bulgaria, the Czech Republic, and Hungary.

As far as per capita FDI numbers are concerned, the biggest improvement thanks to the EU accession was reported in the Balkan states, followed by the Baltic states. The Central European countries, already benefiting from high FDI inflows before the EU accession, continued receiving the capital at a considerably higher scale. The only exception was Slovenia which changed from the position of a recipient to the position of the exporter of capital.

Generally speaking, the enhanced FDI inflows reflected the process of shifting part of the manufacturing production from Western Europe to the new Member States. This process slowed down considerably, but probably only temporarily, during the global financial crisis.

Net FDI inflows per capita in EU-CEE10



Source: UNCTAD

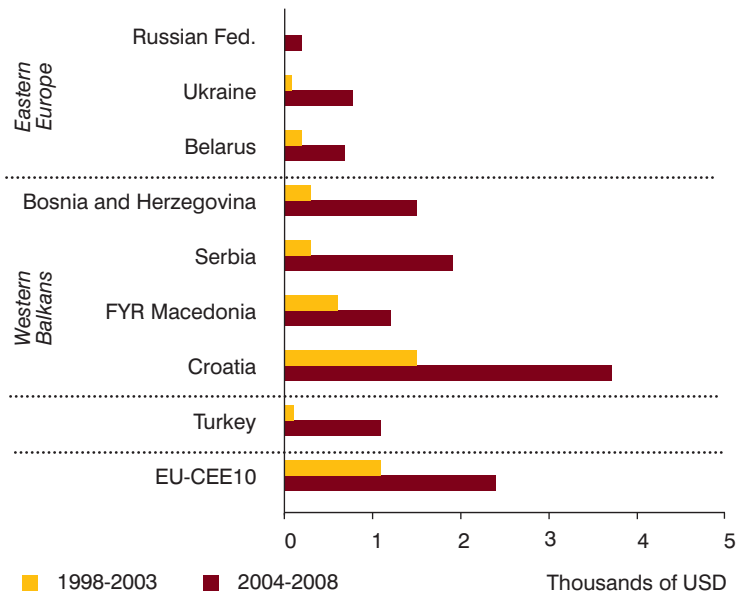
Non-EU-CEE: much less FDI inflows

Much less of this phenomenon was observed in other CEE countries, albeit the FDI inflows significantly increased in the 2004-2008 period, and over the previous years as well.

In Eastern Europe, the main recipients of the FDI were Russia and Ukraine. Nevertheless, the scale of per capita inflows was several times smaller than in the EU-CEE10. Weak FDI inflows reflected relatively low investment attractiveness of this part of the CEE region, as well as high entry barriers for investors (particularly for those interested in the natural resources exploitation in Russia).

Per capita FDI inflows in the West Balkan states were also significantly lower than in the EU-CEE10, with the exception of Croatia, but comparable to Turkey. Taking into account relatively small scale of the economies, low labour costs, and geographical proximity to the EU market, such inflows can be considered disappointing.

Net FDI inflows per capita in Non-EU-CEE10



Source: UNCAD

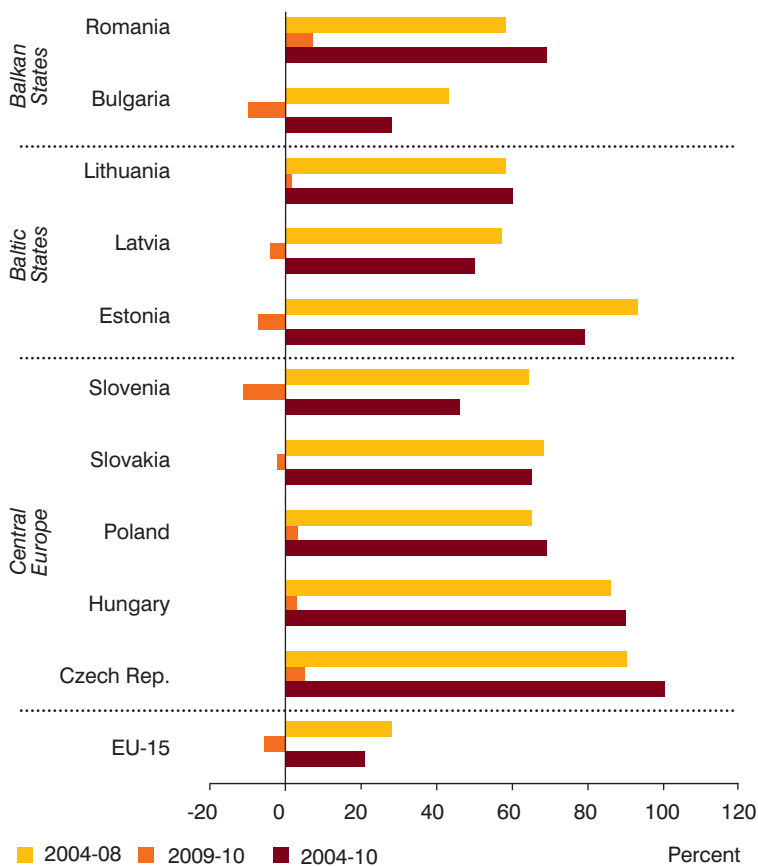


EU-CEE10: export-led growth

All EU-CEE10 countries were sharing a similar development pattern in the 2004-2008 period, dominated by export-led growth. Exports were robustly increasing after the EU accession, almost doubling in the Czech Republic, Hungary, and Estonia, increasing by 60-70% in other Central European and Baltic countries, and by 40-50% in the Balkan states that joined the EU with 3 years of delay. The rate of growth of exports recorded in the EU-CEE10 was considerably higher than the growth of the global exports and the increase of exports in Western Europe.

During the turbulent years 2009-2010, the exports contracted significantly in Estonia, Latvia, Slovenia, Bulgaria, and to a smaller degree in Slovakia. All these countries were using fixed exchange rate regime (or introduced the euro), which did not allow for supporting export expansion by currency devaluation. The countries using flexible exchange rate regime (the Czech Republic, Hungary, Poland, Romania) did considerably better, and recorded an increase in exports.

Growth of exports in EU-CEE10, 2004-10 (in constant prices)



Source: European Commission, IMF

Altogether, and despite the consequences of the global financial crisis and the global recession, the total exports of the EU-CEE10 increased by 73% in the whole 2004–2010 period (8.1% yearly average growth), as compared to 21% increase in Western Europe (2.7% yearly average growth).

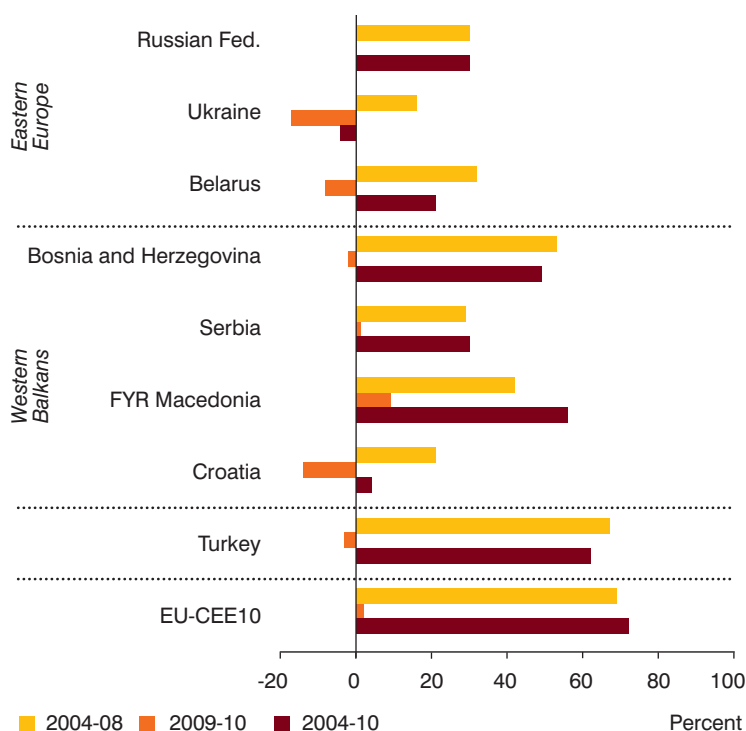
Non-EU-CEE: weaker export performance

The Non-EU-CEE recorded generally weaker increase in exports than the EU members. Conditions of access to the EU market were much worse, and the process of shifting the production from Western Europe – much less visible.

Exports of the East European countries, particularly Russia, are heavily dominated by the energy and energy-intensive production. The export performance was good in the 2004-2008 period, but deteriorated sharply during the financial crisis because of the falling global demand for raw materials.

In the case of the Western Balkan countries, the export growth was noticeable, but significantly slower than in the EU-CEE10 countries enjoying much easier access to the EU market. The situation of Croatia, with a slower export growth in 2004-2008 and a more painful fall in 2009-2010, negatively contrasts with the performance of other countries of the region.

Growth of exports in Non-EU-CEE, 2004-10 (in constant prices)



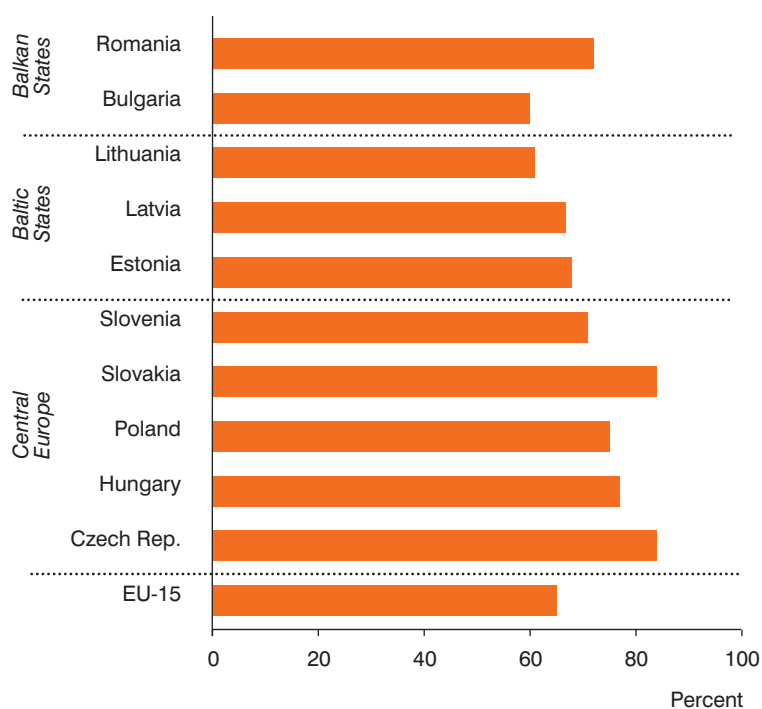
Source: European Commission, IMF

EU-CEE10: high dependence on the situation in Western Europe

Patterns of economic growth observed in the EU-CEE10 led to the strengthening of links between the new Member States and Western Europe. On the one hand, such a situation creates a big potential for future development. On the other, however, it also creates serious challenges, as the EU-CEE10 are seriously dependent on the market situation in Western Europe.

The share of intra-EU trade (trade with other EU states) in total exports of the EU-CEE10 ranges from 61% in Lithuania and Bulgaria, to 84% in Slovakia and the Czech Republic. Moreover, in some cases, the structure of these exports is heavily dominated by a single industry, for example by automotive industry in Slovakia (over 30% of total exports), which makes a country even more vulnerable to the market fluctuations.

Share of the intra-EU trade in EU-CEE10 countries, 2010



Source: European Commission, IMF

The situation is even more challenging due to a relatively small size of domestic markets in all EU-CEE10 countries, except for Poland. Generally speaking, more diversification of exports – as is the case in the major West European countries – could help make the growth more stable.

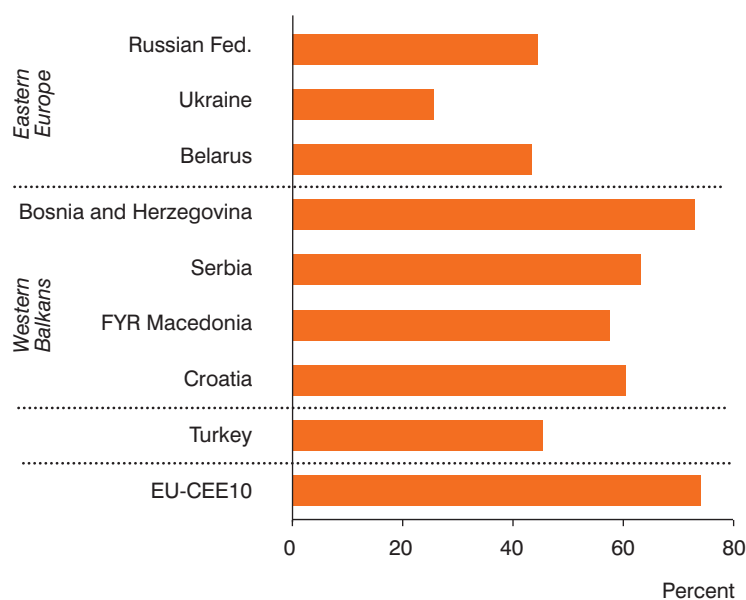
Non-EU-CEE: insufficient export diversification

Other CEE countries share with the EU-CEE10 some characteristics relating to insufficient export diversification, although sources of the problems are different.

In the case of Eastern Europe, the main worry is export monoculture, heavily dependent on exports of energy and energy-intensive production. This is particularly the problem of Russia, with the share of raw materials reaching 75–80% of exports. Nevertheless, this phenomenon is directly or indirectly influencing the situation of all its East European neighbours as well.

In the case of the West Balkan countries, the problem is similar to the one experienced by the EU-CEE10. Exports are dominated by the sales to the EU market, which makes the economies highly vulnerable to the market situation in Western Europe.

Share of the exports to EU in Non-EU-CEE countries, 2010



Source: European Commission, IMF

“The Greek financial crisis has dampened investor confidence in other European countries, as fear of contagion had spread. Heavy presence of Greek banks in the CEE region has caused investors to panic and depreciate the value of some CEE country currencies. Also, more pressure is placed on CEE countries to comply with the 3% deficit-GDP ratio as quickly as possible.

Slovenia has agreed to contribute 387.8 million euros to the Greek bailout package – 0.76% of its GDP. This action contributed to the frustration of the Slovenian people who claim that the money should have been invested in the Slovenian economy and services for its people.”

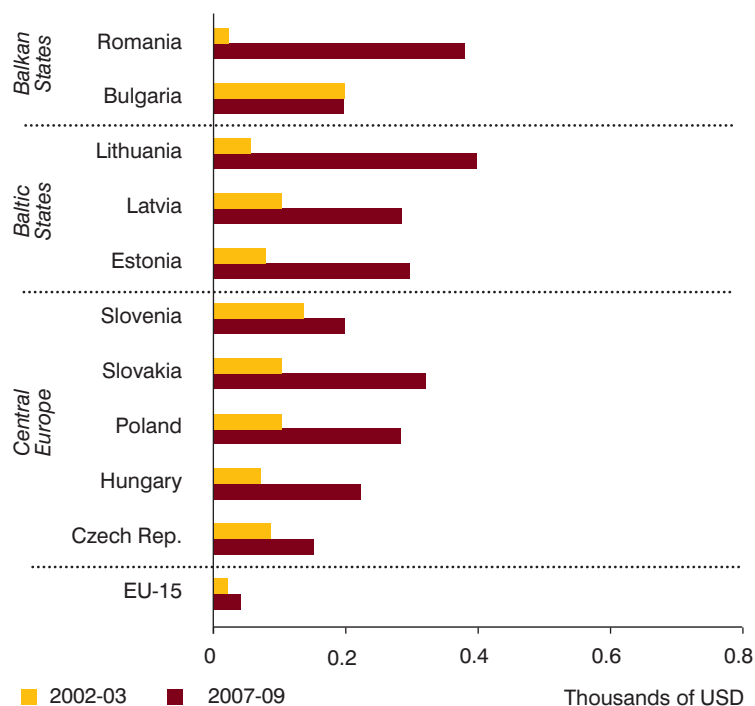
Andrej Vizjak, PwC Slovenia

Bright and dark side of the free movement of labour

EU-CEE10: different propensity to emigrate

Accession to the EU led to the gradual opening of labour markets in Western Europe to workers from the CEE countries. The process was gradual, with Germany and Austria postponing the full market liberalization until 2011, and with the restrictions for workers from Bulgaria and Romania still in force in majority of the EU-15 countries. Despite this, a radical improvement in the access to the market for the majority of new entrants took place already in the 2004-2007 period.

Remittances from citizens working abroad in EU-CEE10 (per capita, yearly average)



Source: World Bank

As a result, significant migration flows emerged. Citizens of the EU-CEE10 countries showed different propensity to emigrate. The biggest emigration per thousand of population was recorded in the 2007-2009 period in Bulgaria (the average annual emigration of more than 4 persons per 1000, according to the UN estimates), followed by the Baltic states (2-3 persons per 1000 annually), Romania, and Poland (below 1 person per 1000 annually). The numbers, albeit probably underestimated, show a significant loss of domestic labour force. That, in turn, may slow down further economic development, increase the inflationary pressure, aggravate demographic problems, and lead to some brain drain effects.

In other EU-CEE10 countries, however, the propensity to emigrate turned out to be very low.

On the positive side, the emigration helped in reduction of the high unemployment rates. Moreover, it could help workers from the CEE countries to acquire new skills and competences. Finally, remittances from citizens working abroad considerably increased, seriously influencing the balance of payments. The strongest increase was observed in Romania and the Baltic states, followed by Poland, Slovakia, and Hungary.

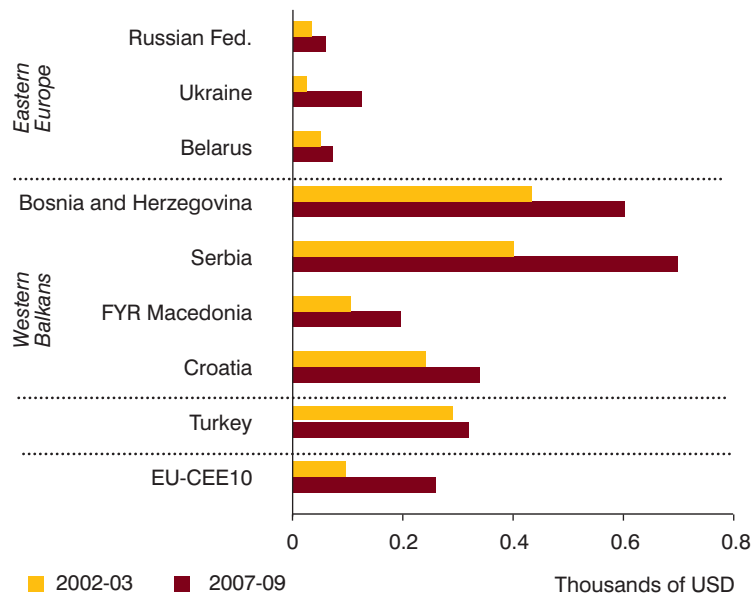
Non-EU-CEE: different patterns of emigration

The situation in other CEE countries was different than in the EU-CEE10, partly because of the fact that their citizens face significant restrictions while working in Western Europe.

In Eastern Europe, the scale of the emigration and remittances from citizens working abroad was quite limited compared to the EU-CEE10, with the exception of Ukraine.

On the contrary, remittances from citizens working abroad were traditionally extremely important for the West Balkan countries. One may expect that a membership in the EU could lead to even bigger wave of emigration from these countries. Although it is not a big problem for Western Europe, given their relatively small population – in a sharp contrast to Turkey – the massive emigration may negatively influence their economic growth prospects.

Remittances from citizens working abroad in Non-EU-CEE (per capita, yearly average)



Source: World Bank

“Since the moment Lithuania regained its independence in 1990, Lithuanians have been emigrating in search of employment. After 2004, this emigration picked up pace, but not all of it was permanent. Of course there is a price to be paid by the country in the long run for its reduced population – fewer people means fewer economic opportunities, lower budget revenues and more difficulty in attracting new investors. Skill shortages will become more obvious and more painful. Those who remain in the country may be able to bid up their wages to such an extent that Lithuania once again starts to lose competitiveness.”

Chris Butler, PwC Lithuania

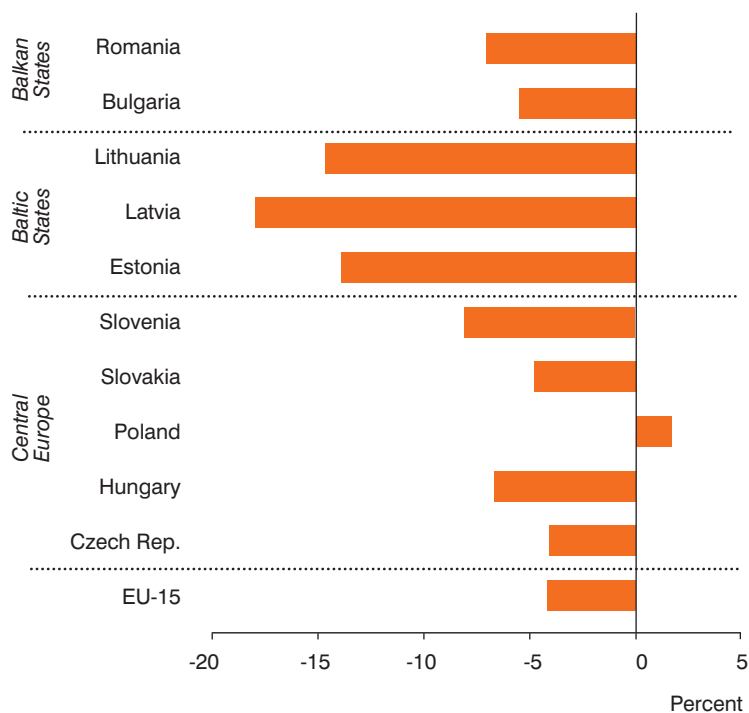
CEE during the global financial crisis, 2008-2010

EU-CEE10: different scale of the shock

The EU-CEE10 countries were influenced by the global financial crisis to a various degree. The Baltic states experienced a sharp recession and their GDP shrank by 14-18% in 2009 alone. The recession in the Balkan states, Hungary, and Slovenia was less painful, with the GDP drop of 6-8%. The Czech Republic and Slovakia recorded the drop of GDP by 4-5%. Only Poland avoided the recession and recorded a 1.7% GDP growth.

Obviously, the scale of the shock depended on several external and internal factors. The most important external factor was exposure to foreign trade, particularly strong in Slovenia, Slovakia, the Czech Republic, Hungary, and the Baltic states.

Change of GDP in UE-CEE10 in 2009



Source: IMF

The most important internal factor was the scale of financial imbalances that had to be reduced during the crisis by tightening fiscal policy. The ability of the monetary policy to react to the shock depended mainly on an exchange rate regime: countries using the flexible exchange rate were in a more comfortable situation than countries using the euro or fixed exchange rate.

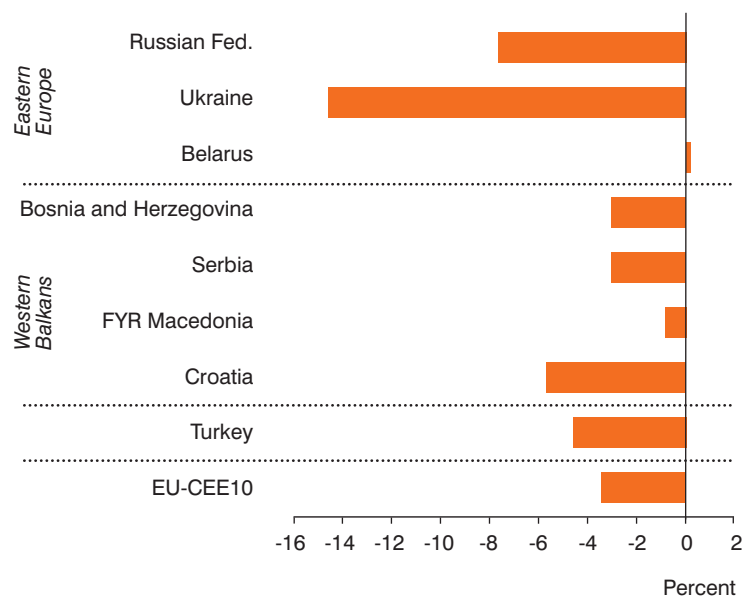


Non-EU-CEE: painful recession

Other CEE countries experienced problems similar to the ones of the EU-CEE10 countries. The fall of exports was particularly painful in Ukraine, Croatia, and Serbia, but hurt all countries, including Russia.

As a result, the GDP of Russia contracted by 8%, and the GDP of Ukraine – by 15%. Belarus managed to avoid the recession, recording a growth which was close to zero. The scale of the recession recorded by the West Balkan countries can be assessed as moderate, with the exception of Croatia which recorded a 6% drop of GDP.

Change of GDP in Non-UE-CEE in 2009



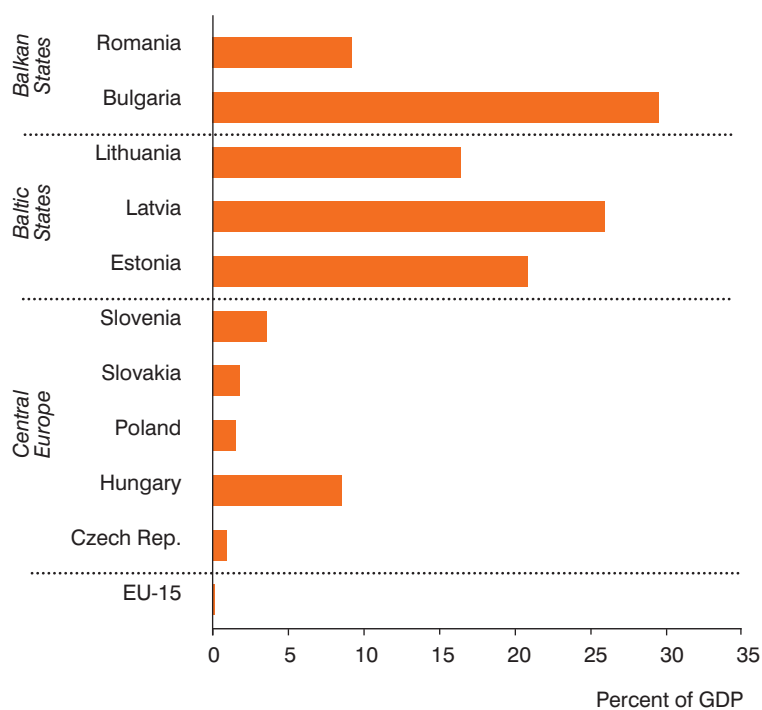
Source: IMF

EU-CEE10: rebalancing the economies

Scale of the shock experienced during the crisis depended to a high degree on the need to rebalance the economy due to financial constraints. That, in turn, was a function of financial imbalances built before the crisis.

The Baltic and Balkan states, which experienced record-high current account deficits before the crisis, were also forced to reduce them the most by squeezing the domestic demand. As a result, the current account improved by 30 percentage points of GDP in Bulgaria, 16-26 percentage points of GDP in the Baltic states, and by 9 percentage points in Romania. Hungary, on the other hand, was forced to carry a similar policy due to excessive public sector deficits, reducing the deficit by 8 percentage points.

Change of the Current Account Balance in UE-CEE10, 2008-10



Source: IMF

As other Central European countries were in a more comfortable situation, the effects of painful rebalancing policies were also reduced and ranged from 1 to 3 percentage points of GDP.

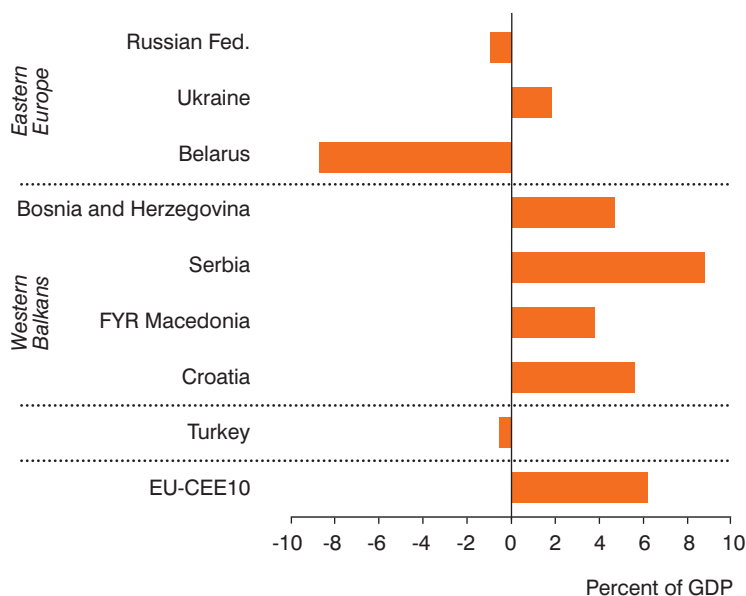
Non-EU-CEE: similar problems, various policies

Challenges faced by other CEE countries during the crisis were, basically, similar. Countries with high current account deficits before the crisis had to squeeze them to avoid a financial collapse. Austerity policies, in turn, led to the further aggravation of the output fall.

Initial situation of the East European countries varied. Before the crisis, Russia was recording a huge and permanent current account surplus, while both Ukraine and Belarus had sizeable current account deficits. As a consequence, Russia did not have to run austerity policies,

and was able to mitigate the GDP decrease caused by the fall of oil and gas exports. Rather than reducing the current account deficit, Russia reduced its surplus using the expansionary fiscal policy. Ukraine, unable to follow a similar path due to the risk of insolvency, reduced the deficit by 2 percentage points of GDP and recorded a deep recession. The most peculiar policy was applied by Belarus. In spite of the pre-crisis current account deficit and a risk of insolvency, Belarus was running loose fiscal and monetary policy that allowed the country to avoid the recession at the price of exposing it to a risk of bankruptcy in future due to dramatically increased current account deficit (by 9 percentage points of GDP).

Change of the Current Account Balance in Non-UE-CEE, 2004-07



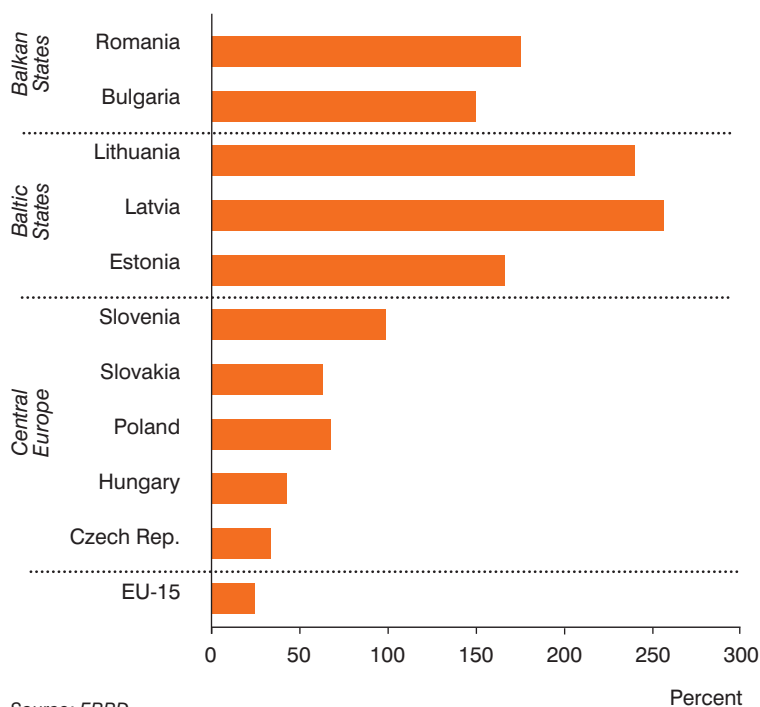
Source: IMF

The situation of the West Balkan countries was more in line with the EU-CEE10 countries. Sizeable current account deficits from before the crisis had to be curbed by appropriate austerity policies, leading to the further fall of GDP.

EU-CEE10: did the EU membership help or make things worse?

To what extent the membership in the EU helped to deal with the crisis or, on the contrary, made it even worse? The key factor in answering this question is connected with the level of overheating the economy before the crisis broke out. A good indicator of this phenomenon is the increase in the domestic credit in 2004-2008. The bigger the credit expansion, with the reduced pool of the domestically available capital, the higher the current account deficit that had to be curbed during the crisis.

Growth of the domestic credit in UE-CEE10, 2004-07 (in real terms)



Source: EBRD

The fastest growth of the real domestic credit in the pre-crisis years was recorded in the Baltic states, followed by the Balkan states and Slovenia. In all these countries, the EU membership might have created excessive self-confidence of banks and debtors, particularly given the easy access to the relatively cheap West European capital. All of them but Romania were either using euro, or had a fixed exchange rate vis-à-vis the euro, which reduced even more their ability to curb the domestic credit expansion with a tighter monetary policy.

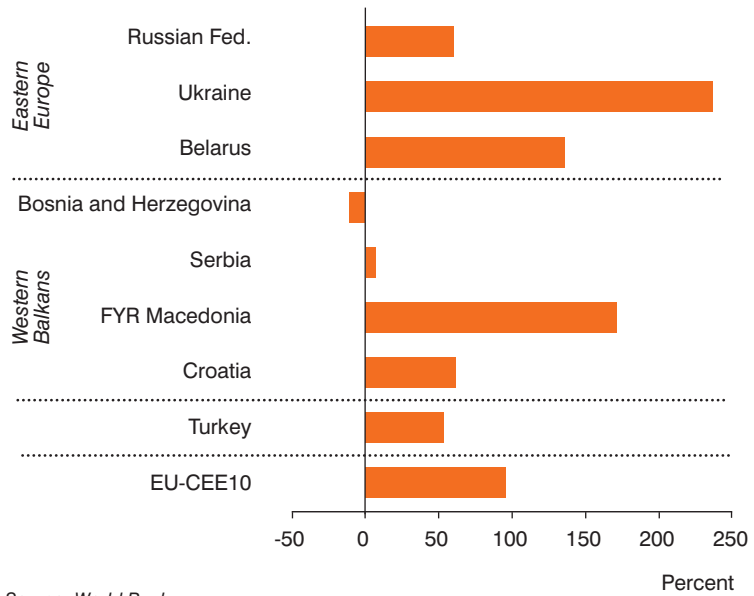
Nevertheless, the EU membership did not mean that excessive growth of the domestic credit was unavoidable. As the experience of Poland, Slovakia, and the Czech Republic shows, the prudent monetary policy and a tight bank supervision could have curbed the overheating even if the cheap foreign capital had been available to the banks.

Non-EU-CEE: excessive credit expansion possible outside the EU, too

The example of other CEE countries confirms that excessive credit expansion, albeit sometimes encouraged by the EU membership, was possible outside the EU as well. The factors that could have supported it were: a weak banking supervision and a peculiar functioning of the banking sector.

In Eastern Europe, the record-high growth of the real domestic credit was recorded in Ukraine, followed by Belarus. As a consequence, the domestic demand was growing far too fast, the current account deficits were increasing, and the quality of the banking sector portfolio was deteriorating. On the other hand, the domestic credit expansion in Russia was quite limited, which helped the country avoid overheating the economy before the crisis.

Growth of the domestic credit in Non-UE-CEE, 2004-07 (in real terms)



Source: World Bank

In the West Balkan states, a particularly fast expansion of the domestic credit was recorded in Macedonia, while other countries were running more prudent policies.





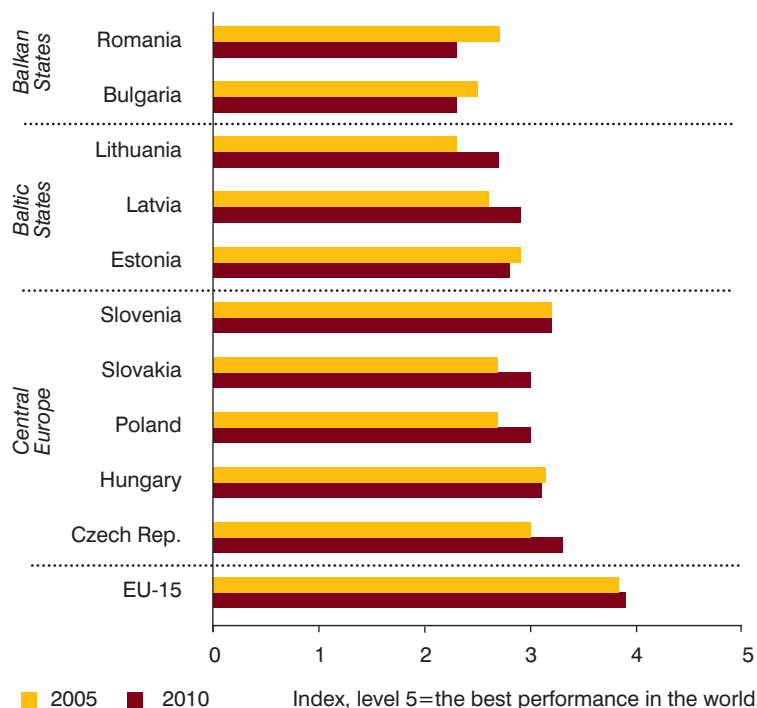
*Change of the business environment,
2004-2010*

EU-CEE10: some improvement in the business infrastructure

After several decades of the communist economy, followed by the years of difficult economic transition, the business infrastructure in the EU-CEE10 countries was underinvested and underdeveloped. Obviously, the situation differs in various types of infrastructure. The aggregate index of the transport infrastructure development, as measured by the World Bank (with the grade of 5 attributed to the best performing infrastructure solutions in the world), showed the value of 2.8 as the region average in 2005, compared to the 3.9 level observed in the EU-15. The worst transport infrastructure existed in Lithuania, with the development index of 2.3, and the best one in Slovenia, with the development index of 3.2.

Over the first years of the EU membership, mainly due to the generous financing from the European structural funds, the situation considerably improved in the Central European and Baltic states.

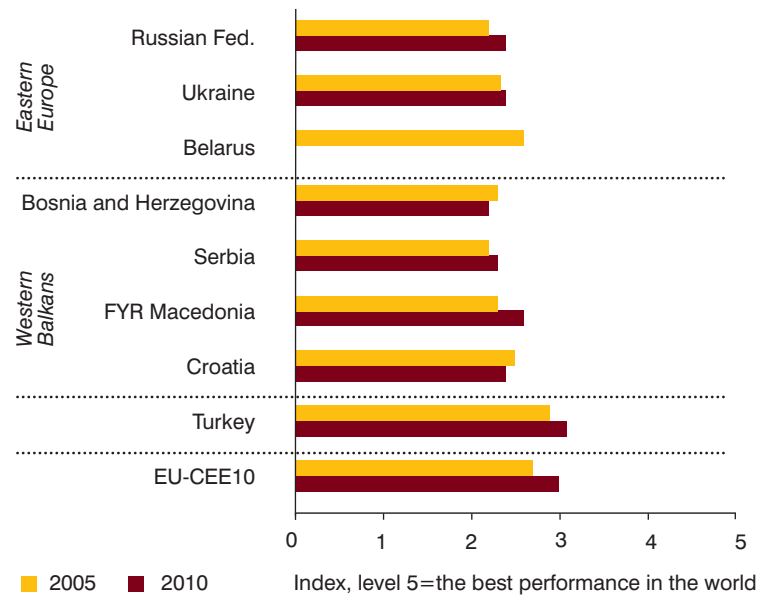
Index of transport infrastructure development in EU-CEE10



Source: World Bank

Transport infrastructure indices improved, on the average, by 0.2 points, and, in 2010, reached the levels ranging from 2.7–2.9 in the Baltic states to 3.0–3.3 in the Central European countries, still well behind the EU-15 level of 3.9. Unfortunately, the situation deteriorated in the Balkan states, with the transport infrastructure indices falling to 2.3. Obviously, one should keep in mind that the Balkan states joined the EU almost 3 years after the other countries. In spite of this, such an outcome can be judged as extremely disturbing.

Index of transport infrastructure development in Non-EU-CEE



Source: World Bank

Non-EU-CEE: business infrastructure needs faster upgrade

The situation looks worse in other CEE states which do not benefit from the EU financial support for the infrastructure development. Not only is the level of business infrastructure development generally lower than in the EU-CEE10 (with the exception of the Balkan states), but the progress is slower as well.

The slow progress indicates problems that the CEE countries face while financing costly programmes of the infrastructure upgrade.

The index of the transport infrastructure development in Eastern Europe in 2005 was ranging from 2.2 in Russia, 2.4 in Ukraine, to 2.6 in Belarus. Over the 2005-2010 period, only a slight improvement took place (data for Belarus are lacking).

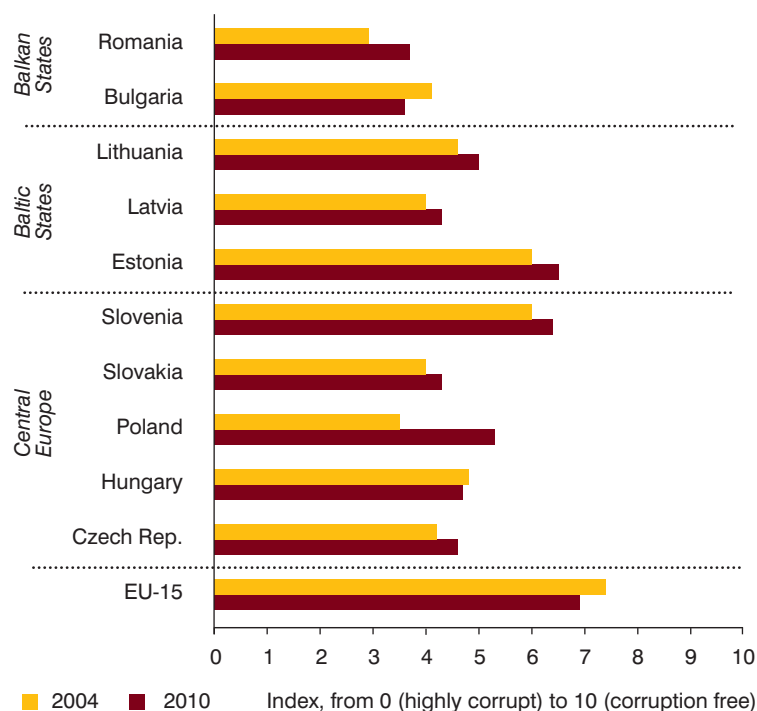
A similar situation was observed in the West Balkan states, with the index ranging in 2005 from 2.2 in Serbia to 2.5 in Croatia, and in 2010 from 2.2 in Bosnia and Herzegovina to 2.6 in Macedonia. The level of development is not satisfactory, and the path of improvement is rather slow.

EU-CEE10: membership helps fight corruption

Apart from upgrading the infrastructure, the EU membership should support long term development of the CEE countries by improving the climate for conducting business. One of the most important elements of this process is a more friendly business environment, in particular successful fight against corruption. As various studies show, the level of corruption is closely related to the quality of public services. Wherever public institutions are weak, the staff underpaid, and the law unclear, bribery flourishes.

The EU-CEE10 countries inherited weak public institutions from the communist past. In 2004, corruption was widespread. The situation, as measured by the Corruption Perception Index (the Index ranging from 0 in a country perceived by the business as totally corrupt, to 10 in a corruption-free country), was the best in Estonia and Slovenia which had the index level of 6. In other EU-CEE countries the situation was considerably worse, and the index ranged from 2.9 in Romania to 4.8 in Hungary. The average for the region in 2004 was 3.9, compared to 7.4 in the EU-15.

Corruption Perception Index in EU-CEE10



Source: World Bank

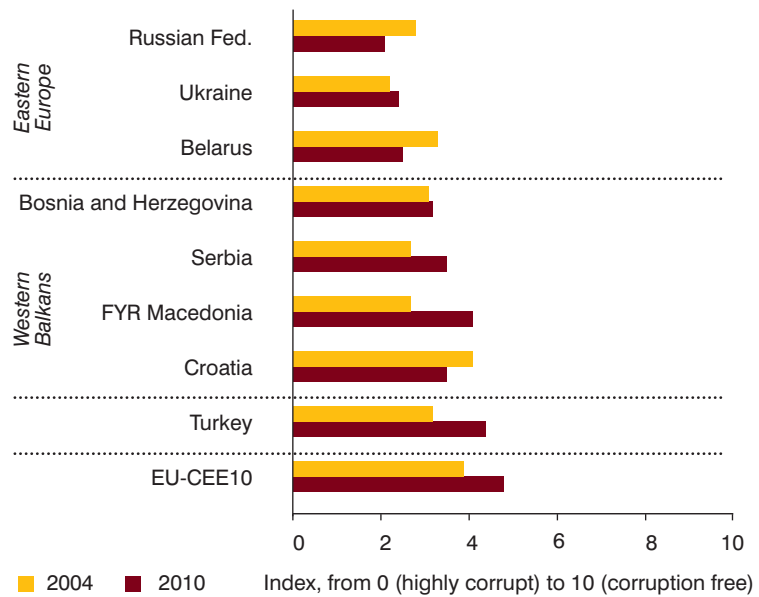
Over the 2004–2010 period, a considerable improvement took place in all countries except for Hungary and Bulgaria. The average Corruption Perception Index for the region in 2010 was 4.8, compared to 6.9 in the EU-15. The progress was possible, despite the fact that the amount of public funds spent for investment in the EU-CEE10, and therefore the room for potential bribery, radically increased thanks to the inflow of the EU funds.

Non-EU-CEE: mixed outcome on the corruption frontline

The corruption situation in other CEE countries was, and still is, perceived as worse than in the Baltic states and Central Europe, although comparable to the one in Bulgaria and Romania. The progress reported in the 2004-2010 period was, unfortunately, much slower than in the EU-CEE10.

The worst situation was observed in 2004 in Eastern Europe, with the Corruption Perception Index reported on the level of 2.2 in Ukraine and 2.8 in Russia, indicating widespread bribery. The situation was only slightly better in Belarus. Unfortunately, in the 2004-2010 period, the index fell both in Russia and Belarus, and remained almost unchanged in Ukraine. Therefore, the corruption situation in Eastern Europe remains extremely difficult, and negatively affects the business climate.

Corruption Perception Index in Non-EU-CEE



Source: Transparency International



On the contrary, better development took place in the West Balkan countries. Albeit the Corruption Perception Index was quite low in 2004, ranging from 2.7 in Serbia to 3.5 in Croatia, some countries managed to achieve a considerable improvement in the 2004-2010 period. Despite this, bribery still remains higher than in EU-CEE10.

EU-CEE10: only moderate reduction of bureaucracy

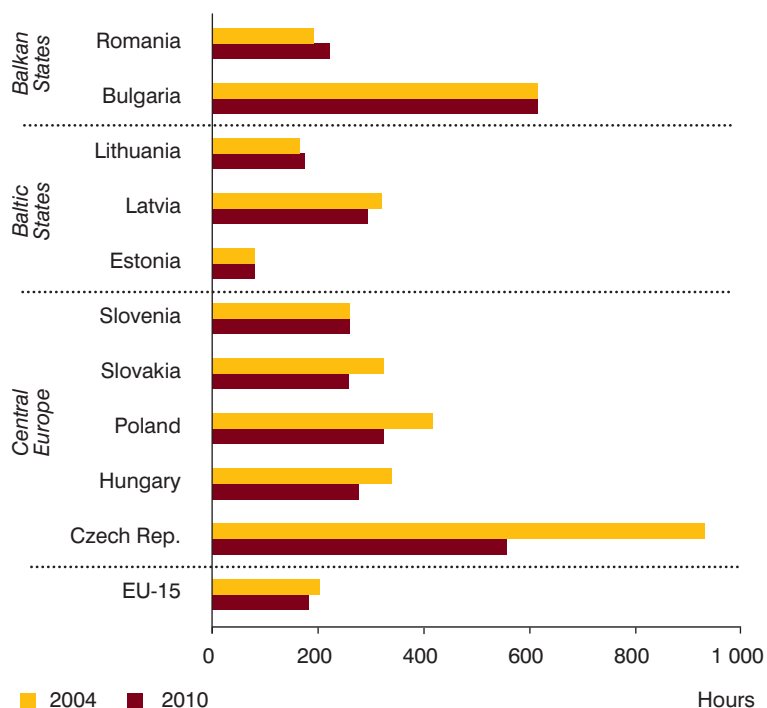
Another area where progress is much needed for the improvement of business environment is bureaucracy. Once again, the bureaucratic red tape reflects not only the unnecessarily complex law and procedures, but the weakness of public institutions as well.

The level of bureaucratic barriers can be measured by the complexity of tax rules and the time necessary to prepare tax statements and pay taxes. In 2004, an average small firm needed 200 hours per year to do it in the EU-15.

Among the EU-CEE10, several countries were offering similar or even better conditions for the business (Estonia, Lithuania, Romania, Slovenia). However, the time spent on paying taxes was much longer in the remaining countries, reaching as high as 930 hours in the Czech Republic.

During the period of 2004-2010, only a moderate improvement took place. The Baltic states remained very business-friendly, and all Central European countries managed to reduce the time burden for the firms by 20-40%. The situation in the Balkan countries did not change a lot. Despite some progress, in the majority of the countries a firm still must carry much heavier bureaucratic burden than in Western Europe.

Time to prepare and pay taxes by a company in EU-CEE10 (hours per year)



Source: World Bank, PwC



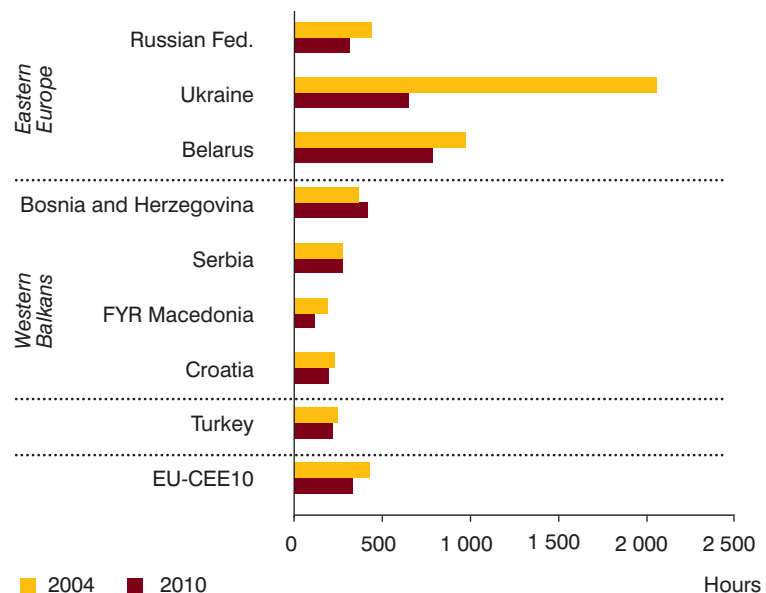
Non-EU-CEE: uneven progress in fighting bureaucracy

The progress in reducing bureaucratic burden for firms in other CEE countries was quite uneven, and some of the countries still stand up as very business unfriendly.

Eastern Europe recorded a general fall of the time necessary for firms to prepare tax statements and pay taxes. Sometimes the progress was quite spectacular, particularly in Ukraine (reduction of the time by 70%). Unfortunately, taking into account a very bad starting point in 2004, the level of bureaucratic red tape remains still extremely high in Ukraine and Belarus, and very high in Russia.

The situation is much better in the West Balkan states, particularly in Croatia and Macedonia. Unfortunately, Serbia did not make any effort to improve the situation, and in Bosnia and Herzegovina the time spent on paying taxes considerably increased.

Time to prepare and pay taxes by a company in Non-EU-CEE (hours per year)



Source: World Bank, PwC

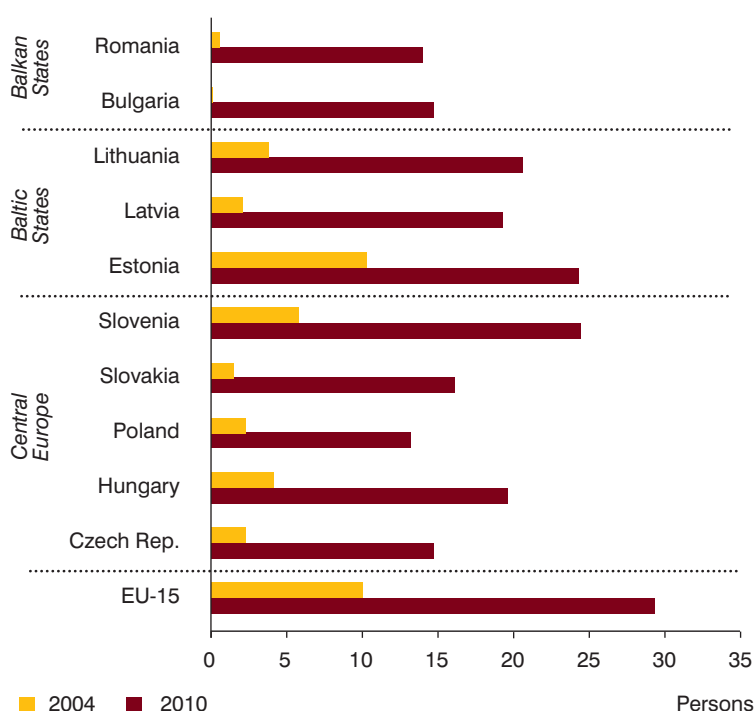
EU-CEE10: accelerated technological progress

Existing technological gap between the CEE countries and Western Europe may be seen, arguably, as the key element determining long term economic development. On the one hand, this gap translates into lower productivity and competitiveness. On the other hand, it may frustrate the growth, as societies do not absorb new technologies easily.

The problem of reducing the technological gap has many dimensions and is not easy to measure. If we take the advancement of the information society and the presence of internet technologies as an indicator, as the EU Lisbon strategy does, we can observe both the fast progress achieved in the EU-CEE10 over the last 7 years, as well as the still existing distance vis-à-vis Western Europe. In 2004, broadband internet penetration in the majority of the EU-CEE10 countries was only a small

fraction of the levels observed in the EU-15. In the Balkan states, broadband internet hardly existed. In other countries, it ranged from 1.5 subscribers per 100 inhabitants in Slovakia to 6 subscribers in Slovenia, compared to 10 subscribers in the EU-15. Only Estonia was an example of a technological “success story”, with the broadband internet penetration matching West European levels.

Fixed broadband subscriptions per 100 inhabitants in EU-CEE10



Source: ITU World Telecommunication

In the 2004–2010 period, technological progress clearly accelerated in the EU-CEE10 countries. An average broadband internet penetration increased over 7 times, compared to 3 times increase in Western Europe. In 2010 it ranged from 13 subscribers per 100 inhabitants in Poland to 24 subscribers in Slovenia and Estonia, compared to 29 subscribers in the EU-15.

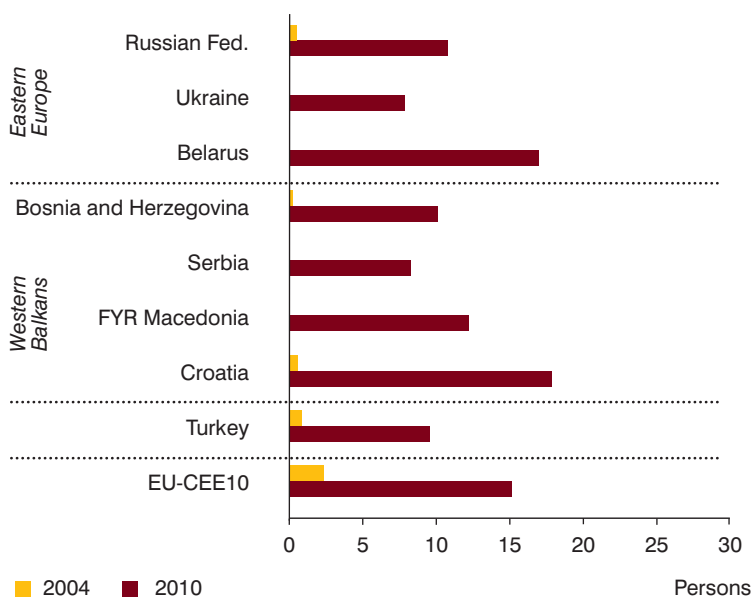
Non-EU-CEE: even faster progress, starting from a lower level

The situation of other CEE countries in 2004 was even worse than in the EU-CEE10. Broadband internet penetration was practically nonexistent. Low technological level of development was seriously hampering both economic and social development.

However, the rapid improvement in this area recorded in the 2004-2010 period helped to bring the broadband internet penetration much closer to the West European standard.

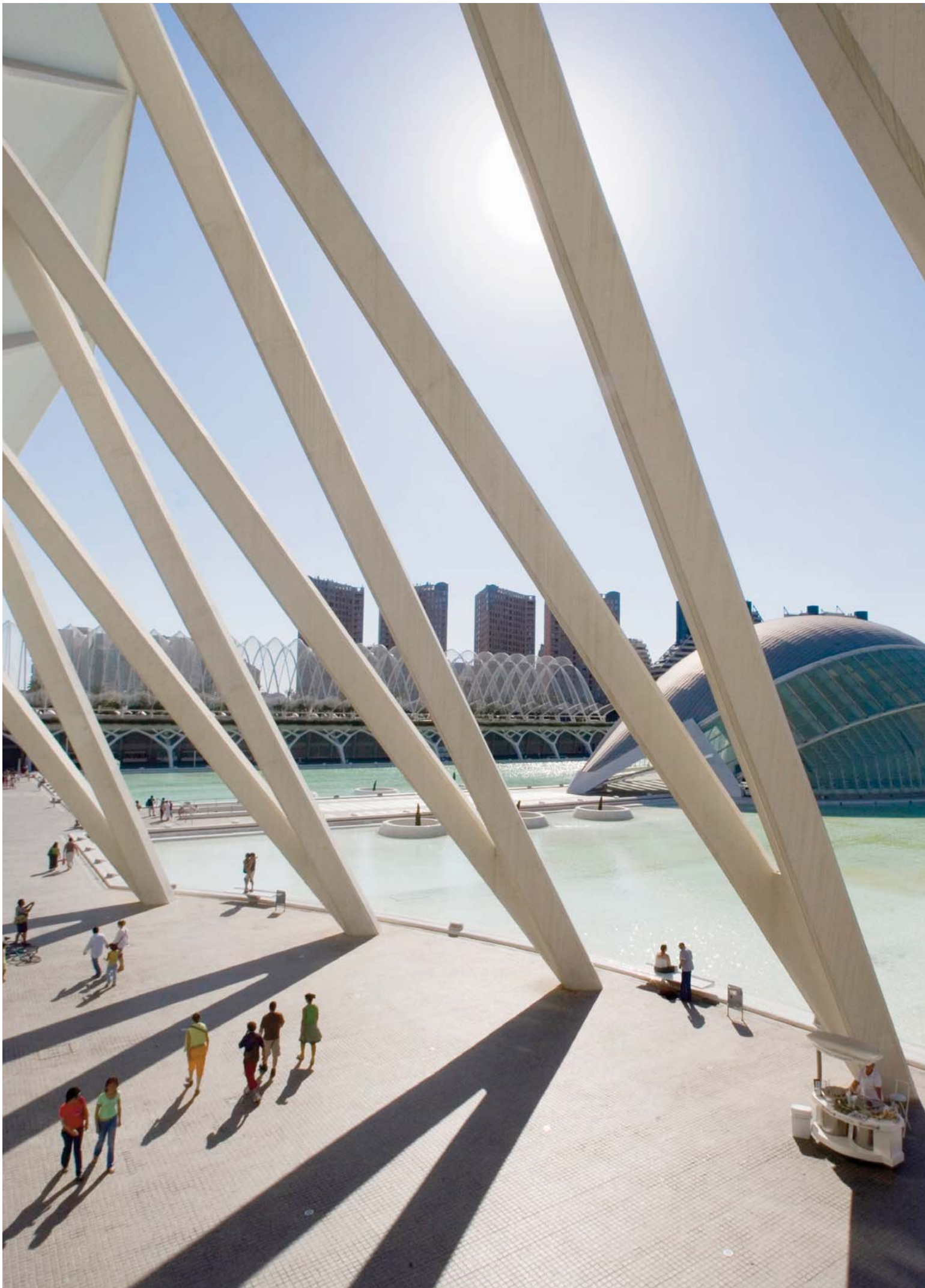
In Eastern Europe, the broadband internet penetration increased in the 2004-2010 period from the level only slightly above 0 to 8 subscribers per 100 inhabitants in Ukraine, 11 subscribers in Russia, and 17 subscribers in Belarus. Nevertheless, the achieved levels of penetration are still one third lower than in the EU-CEE10.

Fixed broadband subscriptions per 100 inhabitants in Non-EU-CEE



Source: ITU World Telecommunication

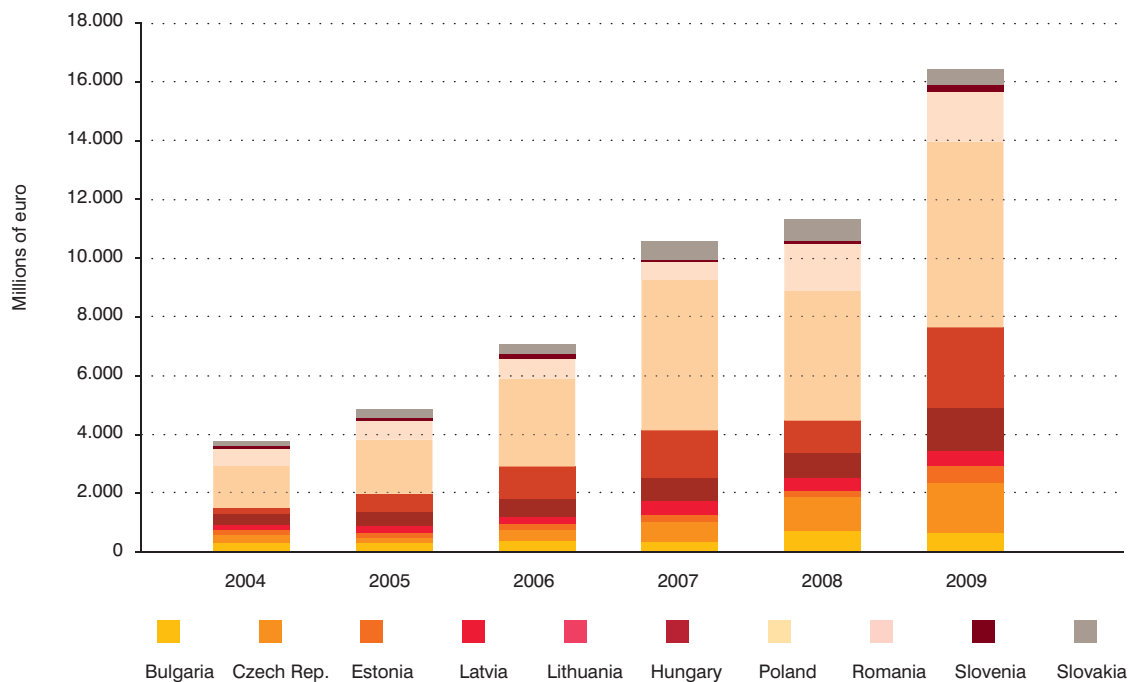
The progress was equally fast in the West Balkan states, where the broadband internet penetration was almost nonexistent in 2004, with the exception of Croatia. By the year 2010, Croatia achieved the level of penetration similar to the EU-CEE10 average, while in other countries it ranges from 8 subscribers per 100 inhabitants in Serbia to 12 subscribers in Macedonia.



***Impact of the EU funds
on the development***

Size and structure of spending

Inflow of the EU funds to CEE member states, 2004-2009



Source: European Commission

The total amounts of net EU funds flowing to the new EU members from the CEE region have been constantly increasing since 2004.

In 2004 – the first year of EU membership of the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Slovakia and Slovenia – the total net inflows to these countries amounted to slightly less than EUR 4 billion. In 2007, at the beginning of the new EU financing framework, and in the year of the enlargement covering Bulgaria and Romania, inflows already amounted to more than EUR 10 billion. In 2008 the increase was quite small – the projects financed with the funds from the new financial framework were not fully started yet and the total amount increased mainly due to new Member States. In 2009, however, the inflows increased by 45%, from EUR 11.3 billion to EUR 16.4 billion.

The absolute amounts of the EU funds flowing to the CEE EU members are obviously strictly related to sizes of their respective economies. The largest amounts go therefore to Poland being the biggest country (and the biggest recipient of the EU funds in the current financial framework), then to Hungary, the Czech Republic and, since 2008, when it started to fully benefit from the EU membership, to Romania.

As the sizes of the EU-CEE10 countries are quite diversified, the potential importance that these funds could play in the development of individual economies depends on the size of inflows in relation to their GDP, as well as to their investment spending.

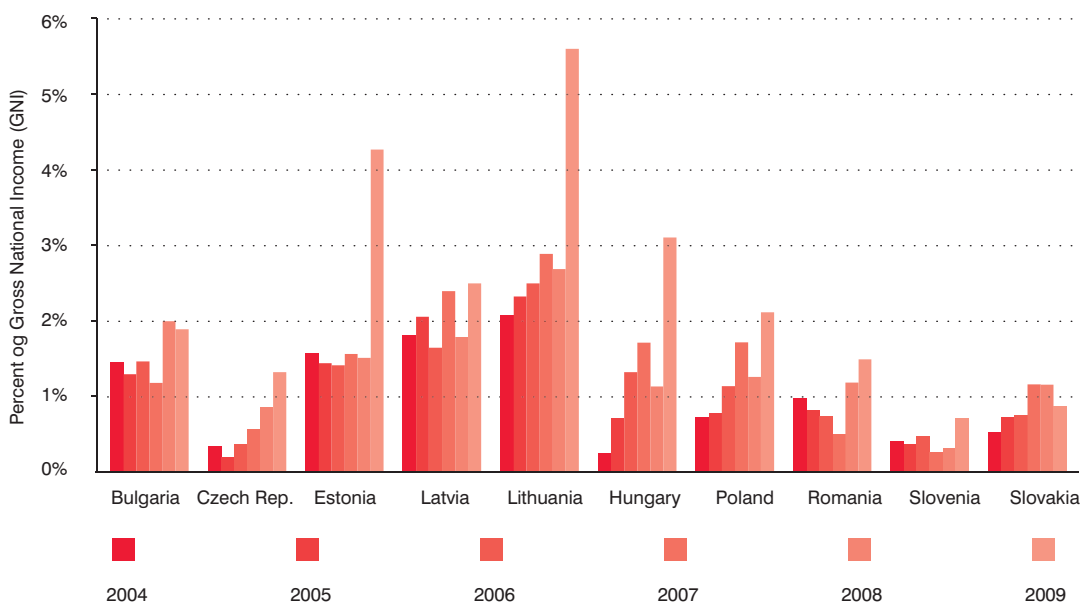
An average size of inflows in relation to GDP was the highest for Lithuania and Latvia, until 2008 the only two countries receiving more than 2% of their GDP as EU transfers. In 2009, already during the global financial crisis, these countries were joined by Estonia and Hungary, where serious increase in actual amounts obtained was accompanied by either reduction of GDPs (mainly Estonia) or rapid exchange rates depreciations (mainly Hungary). In 2009, Lithuania obtained from EU more than 6% of its GDP, Estonia – more than 4% and Hungary – more than 3%.

Actually, almost all other countries (except Slovakia and Bulgaria) experienced a radical increase in the relation between the net inflows of the EU funds to GDP in 2009 – and in all of them it was partially related to exchange rate and GDP movements. Disregarding the underlying arithmetics, such a serious growth of external inflows of funds for most of the CEE countries was a serious stabilizing factor for their economies during the crisis, and played an important role in their relatively quick recovery.

“Poland has benefited tremendously from the inflow of the EU funds. The available resources allowed for a fast modernization of the road and rail network, as well as contributed to the human capital development. Nevertheless, the improvement of the business environment could have been bigger if the bureaucratic red tape had been cut, and public institutions strengthened.”

Olga Grygier, PwC Poland

Total inflows of EU funds as percent of GNI, 2004-2009



Source: European Commission

The structure of the EU financial inflows to the CEE countries is quite similar for all of CEE countries, with the exception of Bulgaria and Romania, where the role of pre-accession funds was still important in recent years. In all countries that joined the EU in 2004, structural funds and cohesion fund together constitute the most important part of the total EU spending. Only in Slovenia, the richest country in this group, the share of these two funds, targeted predominantly at poorer regions, was below 40%.

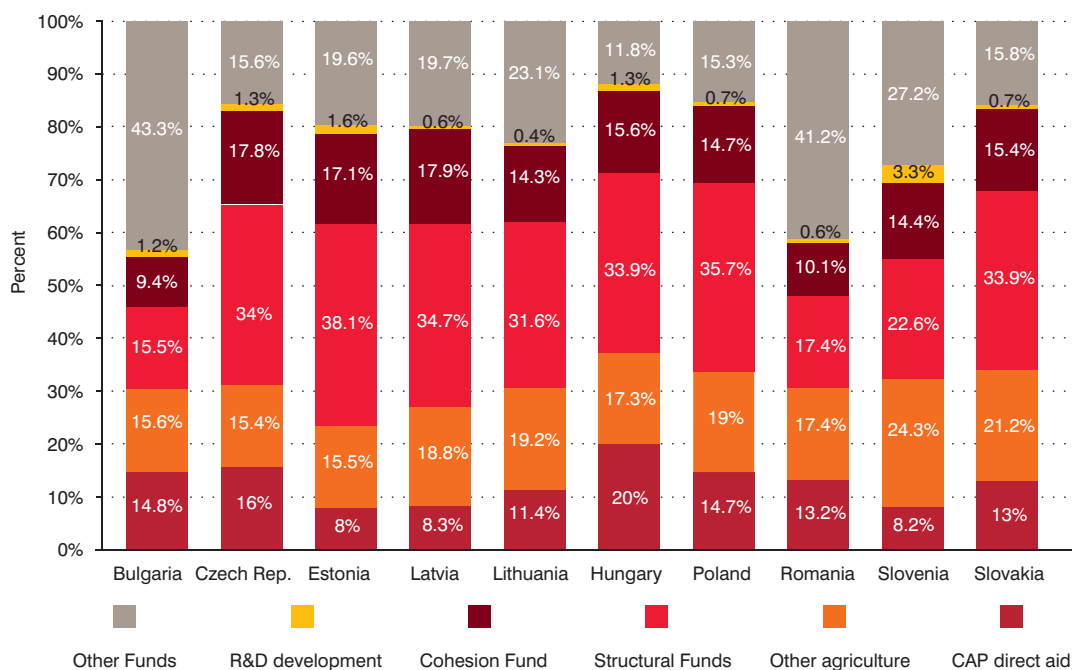
In Estonia, Latvia, the Czech Republic and Poland structural and cohesion funds constituted more than 50% of total spending. On the other hand, in two countries that joined the EU in 2007 (Bulgaria and Romania), they constituted around 25% of total spending, as they were still partially replaced by pre-accession money. The money from these funds is used mainly to co-finance large, public, infrastructural investments and environmental projects, and below we will look at the role they could have played for investments of that kind.

The funds related to agriculture are the second most important spending category – in all countries they constitute around 30% of the total EU spending, with the highest share for Hungary (37.3%), Poland (34.7%) and Slovakia (34.2%).

They were relatively less important in Estonia and Latvia. Direct payments support mainly consumption and private investments of the CEE farmers, whereas other funds support the development of rural technical, social and logistic infrastructure.

The “other funds” group is not homogenous across the countries. They differ both across countries and between consecutive years. For example in 2009 (so the last year analyzed), the pre-accession funds were still very important for Bulgaria and Romania, while the funds for nuclear decommissioning played an important role for Lithuania. In all countries some money was also spent from life-long learning, citizenship, security and administration funds.

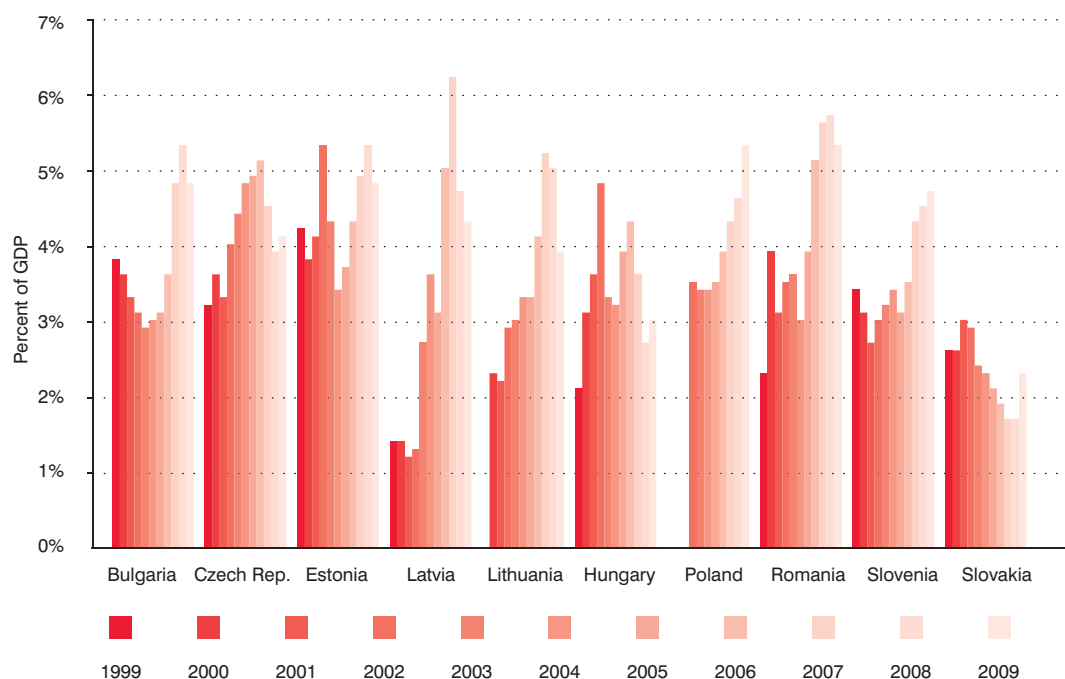
The structure of total EU funds in EU-CEE10, 2004 (2007)-2009



Source: European Commission

Size of public investment

Public investment as percent of GDP in EU-CEE10, 1999-2009



Source: Eurostat

In most CEE countries which joined the EU in 2004, the level of public investments in relation to GDP increased rapidly around the accession date. It is particularly clear in Latvia, Lithuania, Poland and Slovenia, where the share of public investments in GDP increased from around 3% before accession to 4%-5%, or even 6% in the case of Latvia.

One can also observe some increase in this share in Hungary which recorded a sharp increase in public investment in 2005, after the fall in the years 2003-2004. In Bulgaria and Romania – countries which joined the EU in 2007 – public investment also increased just after the accession, and this effect was as high as in the case of earlier joiners. The fall of investment spending in some countries (the Czech Republic, Latvia, Lithuania, Hungary and Romania) in most recent years was obviously related to the economic crisis.

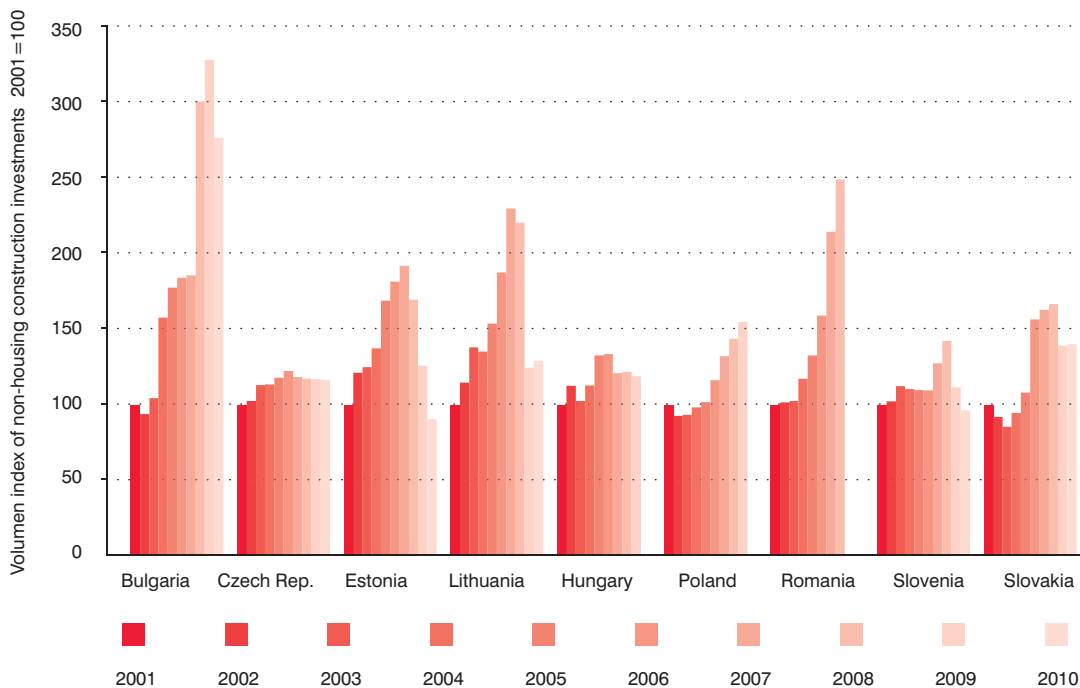
The special case in this respect among the CEE countries was Slovakia, where the level of public investments has been constantly falling since 2004, and increased just in 2009. One has to observe, however, that Slovakia experienced relatively small inflows of EU funds, and also that the country was implementing quite radical programme of general public spending cuts.

The importance of the EU funds inflows is even more visible if compared to the general level of infrastructural investment in the CEE Member States. In most cases, there is a visible relationship between the EU accession date and rapid increase in infrastructural investment volumes (real spending). One observed the sharp (almost twofold) increase in Bulgaria and Romania in the years 2008-2009, there were also quite sharp upward movements in Estonia in 2005 and Lithuania and Slovakia in 2006. Less dynamic increases were also recorded in all other countries except the Czech Republic – but even there some upward trend could be observed between the years 2004 and 2006.

In some countries, infrastructural spending had decreased as the effect of the economic crisis, but in almost all of them it was still clearly above the pre-accession levels.



Volumes of infrastructural investments in EU-CEE10, 2001-2010



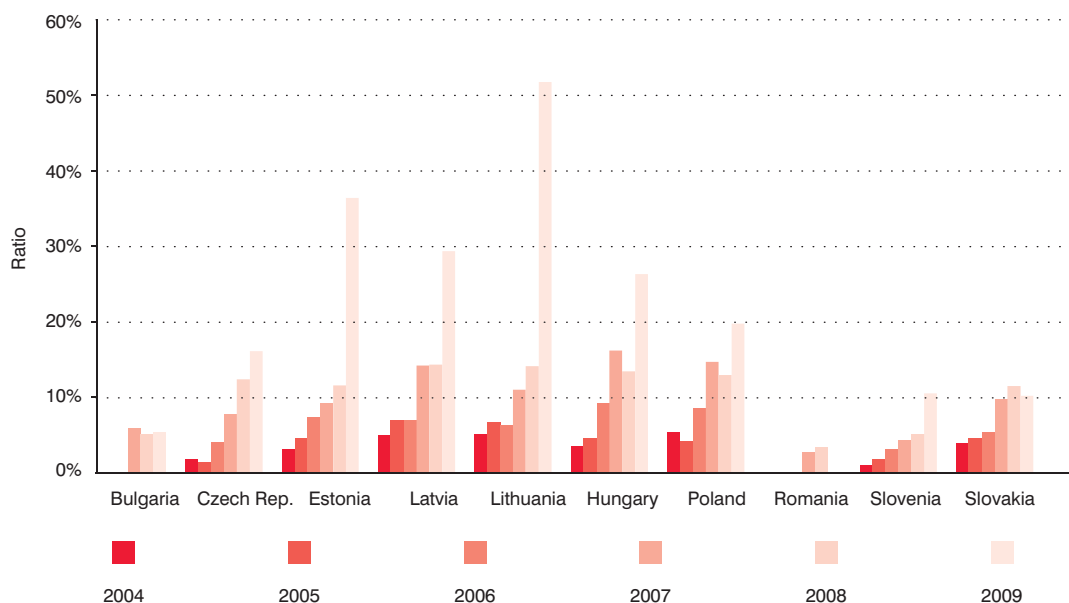
Source: Eurostat

Infrastructure development

Structural and cohesion funds played an important role for total infrastructural investment spending in most of the CEE Member States. The role they played had been increasing over time, together with improving absorption of funds from the 2007-2013 EU financial framework.

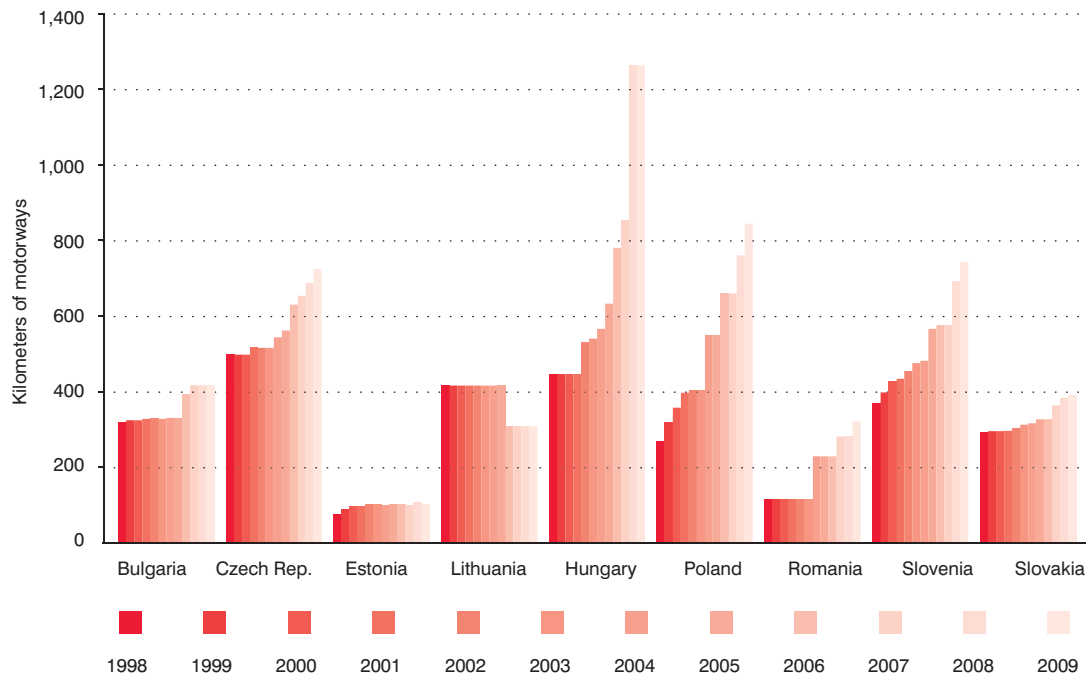
The exceptions are Bulgaria and Romania, where till 2009 a large part of funds spent still originated from the pre-accession period. The relation of various structural funds spending (structural Objective 1, cohesion and TEN funds) to the total infrastructural investment reached maximum during the crisis where local financing had to be strongly limited. In countries hit by the crisis the most – Lithuania, Latvia and Estonia – the relation of the funds spending to total investment increased to 30%-50%. In bigger countries, such as the Czech Republic, Poland and Hungary, it reached 15%–25%. In Slovenia and Slovakia these relations were much lower mainly due to generally lower amounts of EU structural funds available there.

Relation of the inflow of EU structural funds to total infrastructural investment in EU-CEE10, 2004-2009



Source: Eurostat

The total length of motorways, 1998-2009



Source: Eurostat

The development of transport infrastructure was one of the top priorities of the EU financed investment in all CEE countries. The results of this investment are already strongly visible in all countries.

One of the most popular types of the EU co-financed infrastructural investment was the development of motorways. In most countries, with the exception of the Baltic States, where motorways system is not the most important priority due to their relatively small size, the total length of motorways started to increase dynamically after the EU accession. In Hungary and Poland the total length of the motorways network more than doubled between 2004 and 2010. The increase was also very noticeable in the Czech Republic, Romania and Slovenia.

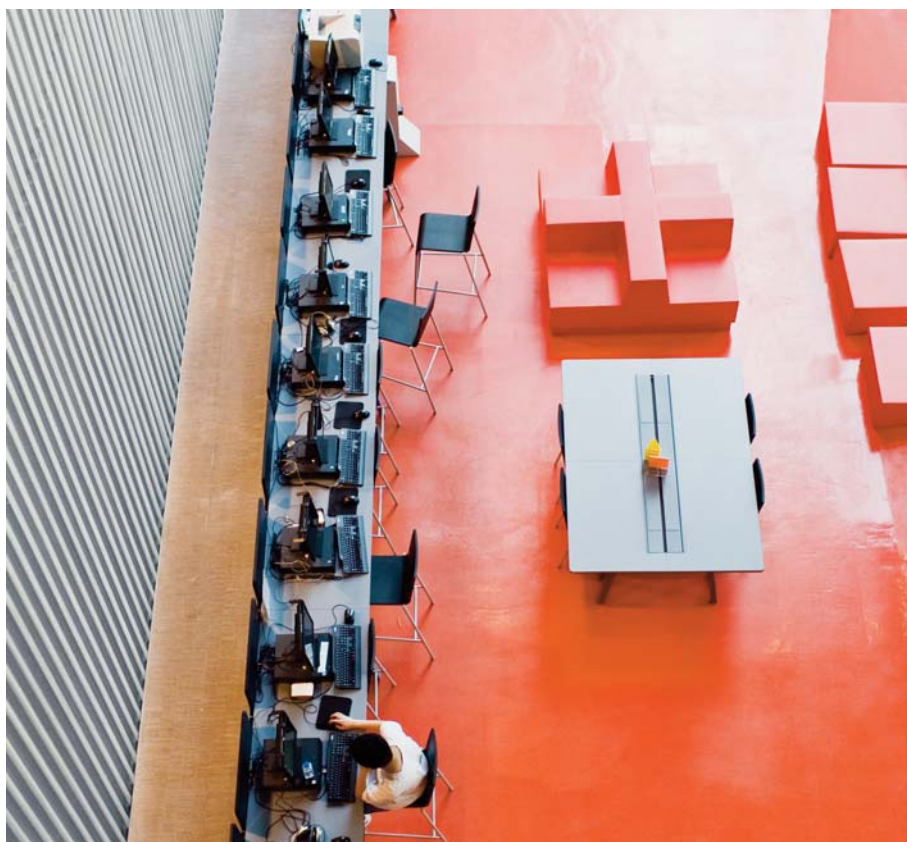
Another big item in the EU co-financed infrastructural investment is the upgrade of the railway system, with the results visible as much as in the case of motorways.

“The acquis, the common market, and even the ‘EU Member State’ label contributed to the impression of stability, legibility of legal environment, and to an increase in export opportunities. The qualitative changes in the Czech economy can be illustrated by a trend of appreciating currency, an increase in sales of hi-tech goods, or by a long term enhancement of trade conditions. Indeed, there are also EU funds that are directly determined for improvement of technology transfers or modernization of firms. In this case, Czech experience suggests that these funds have been utilised poorly, and the effects are very weak.”

Zdenek Hrdlicka, PwC Czech Republic

Human development and participation in life-long learning

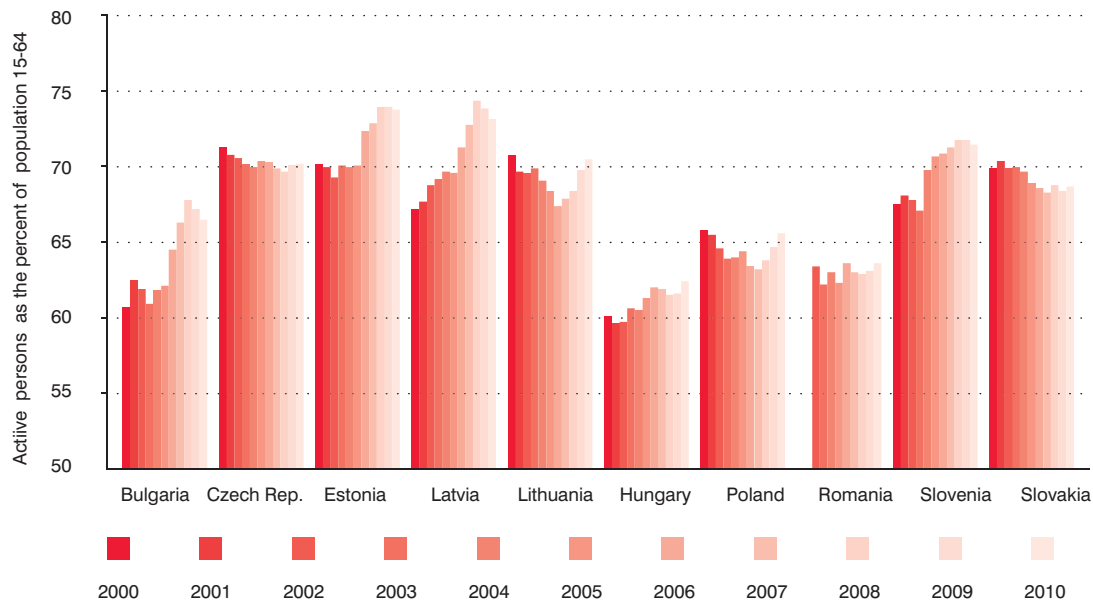
Although large scale investments in “hard” infrastructure, mainly transport and environmental ones, constitute the biggest part of the EU financed spending in the CEE countries, considerable funds are also allocated to support the interventions of a softer kind – mainly investments in human capital development, as well as in the research and development activities.



The resources invested in the human capital development are quite hard to separate from other kinds of spending, based only on the general budget implementation information. They are financed from numerous sources, including: European Social Fund (ESF), European Regional Development Fund (ERDF), Rural Development Fund and separate spending categories, such as Life-Long Learning Initiative, ERASMUS, Leonardo da Vinci. Using various data, however, one can assess that they add up to 20-40% of the total spending from structural funds. The share of the biggest contributor to social and human capital development policy (ESF) in total spending from structural funds varies in the EU-CEE10 from 10% to 30%. The biggest individual projects aimed at human capital development amounted to up to EUR 125 million.

There are two main objectives of human capital development interventions. The first one is to increase the labour market activity of the population, and the second one is to increase the adaptability of the labour force to the changes in market environment. The former can be directly measured by the change in the economic activity rate of population, the latter is not so easy to follow. However, if adaptability is mainly dependent on acquiring of up to date knowledge, one can try to measure it by the participation in the Life Long Learning activities (LLL).

Economic activity rates for population aged 15-64, 2000-2010



Source: Eurostat

Tendencies observed in the economic activity rate (as for instance the share of adult population working or actively looking for a job) are quite heterogeneous across the CEE countries. The rates have been considerably increasing in Bulgaria (although from an extremely low level), Estonia, Latvia and Slovenia. Some increase (although both starting and ending levels are very low) can also be noticed in Hungary. The levels (apart from cyclical fluctuations) have been rather stable in Poland, Lithuania and Romania, and slightly decreasing in the Czech Republic or Slovakia.

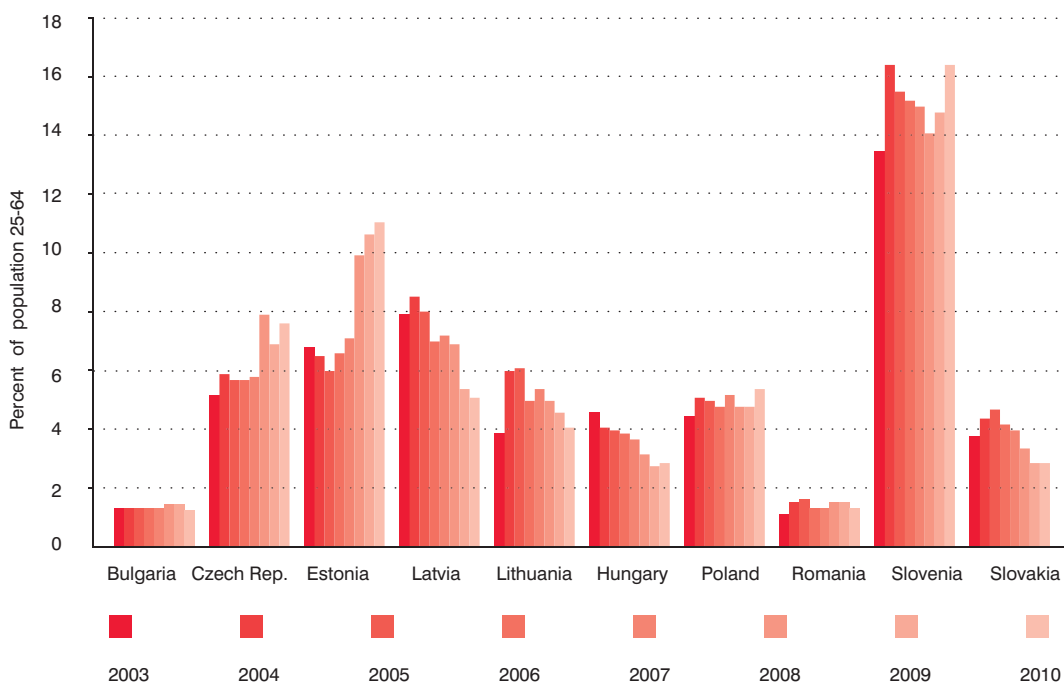
One cannot see any evidence of direct influence of EU accession on the observed activity rates of population. However, it does not necessarily mean that money spent on the human capital development projects are ineffective. One has to take into account that changes in economic activity, as any changes in social attitudes and behaviours, are long term processes and depend mainly on local economic policy, and less so on funds spent to stimulate it.

Stimulating participation in the Life Long Learning activities (LLL) cannot be yet considered a general success, either. According to the results of the European Labour Force Survey, the share of adults participating in any education activities within 4 weeks before the survey date (the statistical definition of participation in LLL) has been continuously increasing

only in a few of the EU-CEE10 countries – the Czech Republic, Estonia and, to some extent, Poland. In other countries it either decreased (Latvia, Hungary or Slovakia) or is more or less stable (Bulgaria, Romania and Lithuania). Increasing participation in LLL is one of the main challenges for social and labour market policies in most of the CEE countries.

It definitely should be supported by the EU funds to make education available for those who need it. It seems, however, that in most countries current approach should be reconsidered to make the related policies and accompanying spending more effective.

Participation in Life Long Learning, as % of population aged 25-64



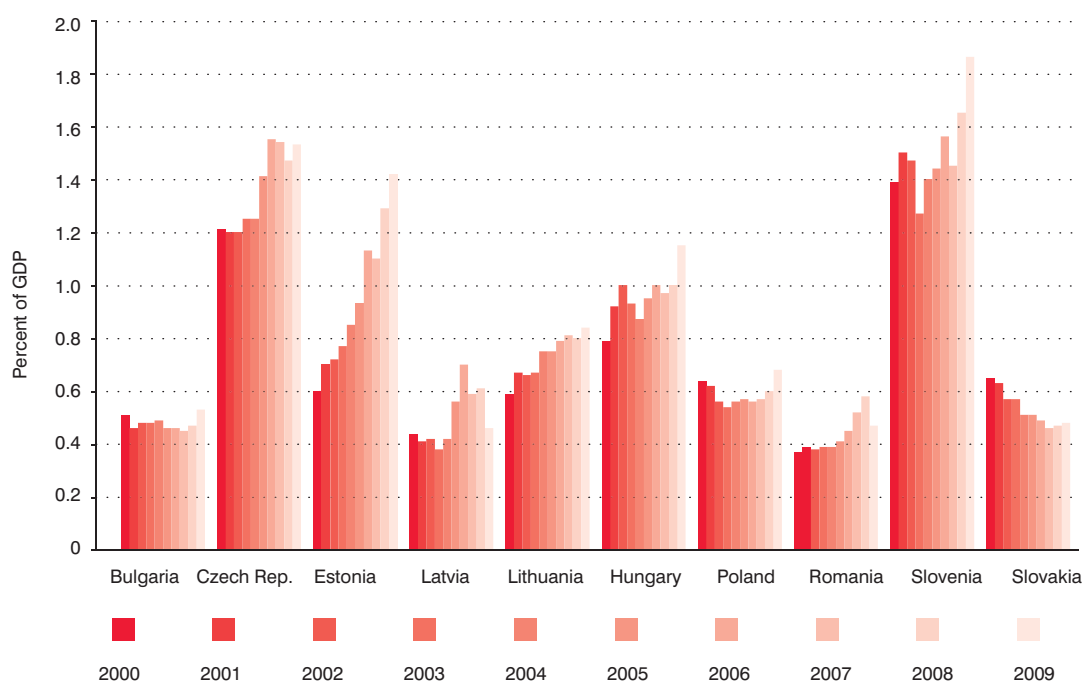
Source: Eurostat

The role for EU funds in stimulating R&D expenditures

As the policy to stimulate the knowledge-based growth is a core strategy of the EU (included in the Lisbon Agenda), one can assume that the EU accession should lead to the increase in the R&D activities in the CEE countries as well. Indeed, the share of R&D expenditures in GDP dynamically increased in 7 CEE countries after they joined the EU (the Czech Republic, Estonia, Latvia, Lithuania, Romania, Slovenia and, to some extent, Hungary). Unfortunately, the EU accession has not led to similar effects in Bulgaria and Poland yet. The only country where the R&D intensity has been falling in recent years is Slovakia. Although none of the CEE countries achieved the level of spending on R&D close to the EU objective of 3% of GDP, in most of them this kind of activity is gradually gaining importance.



R&D expenditure as the percentage of GDP, 2000-2009

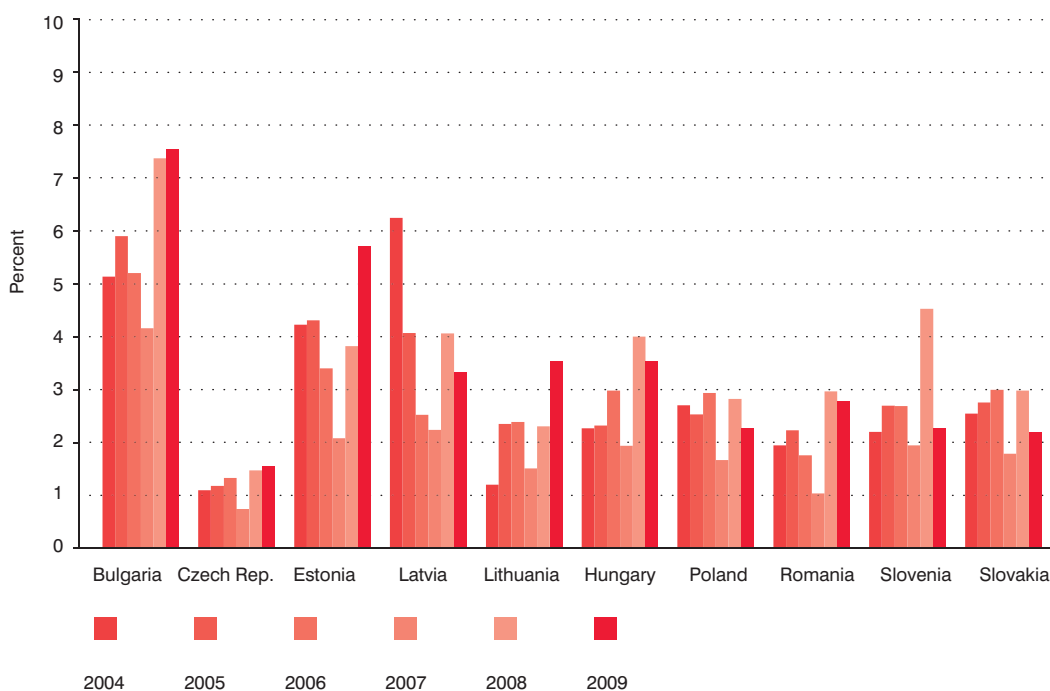


Source: Eurostat

On the other hand, however, one cannot claim that inflow of the EU funds played a very important role in the increase in R&D spending in most of the CEE Member States. Their size, in relation to the total amounts spent on R&D in these countries, is simply too small. The relation of total R&D related funds flowing to the CEE countries since 2004 (7th Framework Programme and selected funds from Competitiveness and Innovation Framework) to the total R&D spending was in most countries below 5%. The relation was the lowest in the Czech Republic, one of the countries which experienced the most rapid growth of R&D spending, while it was the biggest in Bulgaria, where R&D expenditures have not increased at all.

Altogether, one can assess that the impact of the EU accession on the R&D activity in the EU-CEE10 countries was marginal. It is quite disturbing, given the ambitious plans to gradually change the pattern of economic development in these countries to the knowledge-based growth, as required by the Lisbon strategy.

Inflow of EU R&D funds as percent of total R&D expenditures, 2004-2009



Source: Eurostat

The biggest projects co-financed with EU funds

The EU co-financed investment in the EU-CEE10 was spread across various types of projects, from the point of view of both their size, as well as sectoral distribution.

The biggest projects, such as Warsaw ring roads in Poland, D1 Motorway in Slovakia, Black Sea roads in Bulgaria or Hungarian roads project, amounting to more than EUR 300 million each, are all related to road infrastructure. Important road projects are also implemented in Slovenia, the Czech Republic and Romania. Environmental projects are also among the most important EU financed

investments, with the biggest ones, such as upgrading the wastewater management system in Slovenian capital city of Ljubljana, amounting to almost EUR 150 million. Most of the biggest projects are financed with the Cohesion Fund, some of them with the European Regional Development Fund or TEN (Transport Network Infrastructure).



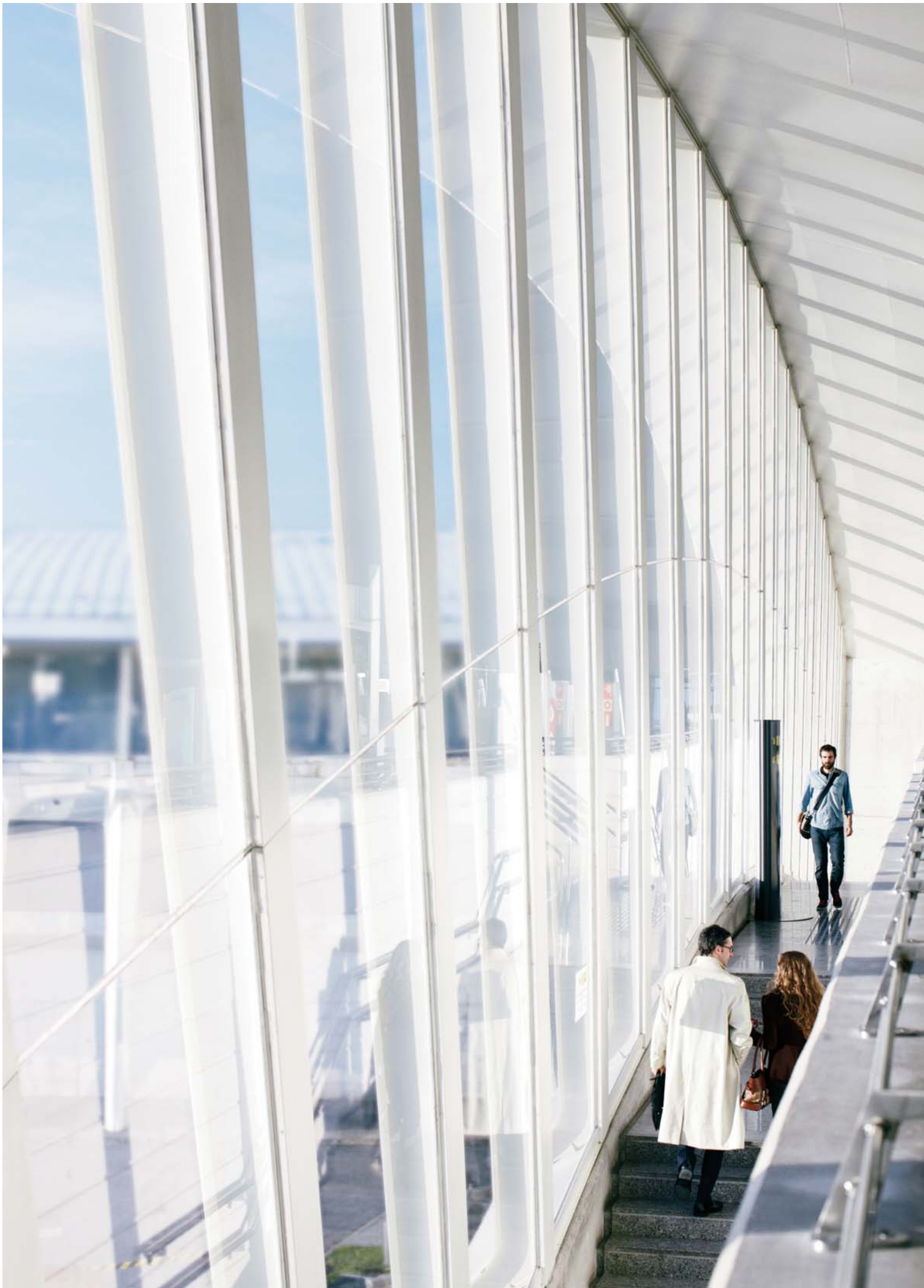
Examples of the biggest projects financed with EU funds in CEE Member States

| Country | Project name | Sector | Total costs (EUR mln) | EU contribution (EUR mln) | EU contribution in percent | Financing fund |
|------------|---|-------------|-----------------------|---------------------------|----------------------------|----------------|
| Poland | Warsaw ring roads gain essential new section | Transport | 543 | 453 | 83% | Cohesion Fund |
| Slovakia | D1 Motorway | Transport | 380 | 224 | 59% | Cohesion Fund |
| Bulgaria | Better road link to the Black Sea | Transport | 358 | 286 | 80% | Cohesion Fund |
| Hungary | Hungary's roads, On the move | Transport | 325 | 201 | 62% | Cohesion Fund |
| Bulgaria | Vast extension for the capital's metro system | Transport | 212 | 157 | 74% | ERDF |
| Hungary | Development of Urban Tramways in Miskolc | Transport | 152 | 116 | 76% | Cohesion Fund |
| Slovenia | Major new link in European motorway network | Transport | 151 | 88 | 58% | Cohesion Fund |
| Czech Rep. | Enhanced Czech rail connections to Germany | Transport | 144 | 105 | 73% | Cohesion Fund |
| Slovenia | Upgrading Regional Waste Management Centre in Ljubljana | Environment | 144 | 78 | 54% | Cohesion Fund |
| Romania | Motorists on the move in north-east Romania | Transport | 125 | 87 | 70% | ERDF |
| Poland | Training cross-border language teachers | Other | 125 | 104 | 83% | ERDF and TEN |
| Hungary | Szeged Electric Public Transport Development | Transport | 119 | 86 | 72% | Cohesion Fund |
| Slovenia | A5 Motorway | Transport | 116 | 42 | 36% | Cohesion Fund |
| Romania | Extension and rehabilitation of water and wastewater systems in Tulcea County | Environment | 114 | 91 | 80% | Cohesion Fund |
| Poland | Water and waste heading the right way | Environment | 105 | 78 | 74% | Cohesion Fund |

| Country | Project name | Sector | Total costs (EUR mln) | EU contribution (EUR mln) | EU contribution in percent | Financing fund |
|------------|--|-------------|-----------------------|---------------------------|----------------------------|----------------|
| Hungary | Hany-Tizadasüly flood-level-reducing reservoir | Environment | 103 | 85 | 83% | Cohesion Fund |
| Romania | Overhaul of vital water systems | Environment | 100 | 77 | 77% | Cohesion Fund |
| Poland | Bypass for a town burdened with traffic | Transport | 94 | 80 | 85% | ERDF |
| Latvia | Back on track with Latvian Rail | Transport | 93 | 66 | 71% | Cohesion Fund |
| Romania | Extension and rehabilitation of water and wastewater systems in Medias, Agnita and Dumbraveni region, Sibiu County | Environment | 90 | 72 | 80% | Cohesion Fund |
| Poland | New solutions for a solid waste heap | Environment | 88 | 51 | 58% | |
| Poland | A university campus welcomes new facilities | Other | 80 | 68 | 85% | ERDF |
| Hungary | Debrecen Municipal Transport Project – Construction of Tram Line 2 in Debrecen | Transport | 71 | 55 | 77% | Cohesion Fund |
| Hungary | Development of the wastewater treatment and sewerage in Békéscsaba County Rank City | Environment | 71 | 51 | 72% | Cohesion Fund |
| Poland | A university welcomes new chemistry and biology facilities | Other | 70 | 59 | 84% | ERDF |
| Bulgaria | Controlling the water cycle | Environment | 69 | 50 | 72% | Cohesion Fund |
| Czech Rep. | New building of the Moravian-Silesian research library in Ostrava | Other | 66 | 43 | 65% | ERDF |
| Poland | Public transport network takes more onboard | Transport | 63 | 54 | 86% | ERDF |

| Country | Project name | Sector | Total costs (EUR mln) | EU contribution (EUR mln) | EU contribution in percent | Financing fund |
|------------|--|-------------|-----------------------|---------------------------|----------------------------|----------------|
| Poland | Superior sanitary network attracts major investment | Environment | 57 | 41 | 72% | Cohesion Fund |
| Hungary | Border area welcomes new wastewater system | Environment | 56 | 39 | 70% | Cohesion Fund |
| Czech Rep. | Electrifying railways in the Jihovychod region | Transport | 47 | 37 | 79% | Cohesion Fund |
| Estonia | Reconstruction of water and wastewater networks in Narva city | Environment | 44 | 29 | 66% | Cohesion Fund |
| Hungary | Islands, ID chips and compost – new features of Hungary's waste management landscape | Environment | 38 | 26 | 68% | Cohesion Fund |
| Romania | Solving a major waste problem benefits the environment and human health | Environment | 37 | 27 | 73% | |
| Estonia | Drinking water quality raised to meet EU standards | Environment | 36 | 31 | 86% | Cohesion Fund |
| Hungary | Sewer connection rate set to soar | Environment | 30 | 22 | 73% | ERDF |
| Latvia | Acid waste lagoons to be cleaned for good | Environment | 29 | 21 | 72% | ERDF |
| Romania | Reducing air pollution from a city's main power plant | Environment | 25 | 22 | 88% | ERDF |
| Romania | School for entrepreneurial women in neighbouring regions | Other | 3 | 3 | 100% | ERDF/ESF |

Source: http://ec.europa.eu/regional_policy/projects/major_projects/index_en.cfm



Questions for the future

Future EU enlargement

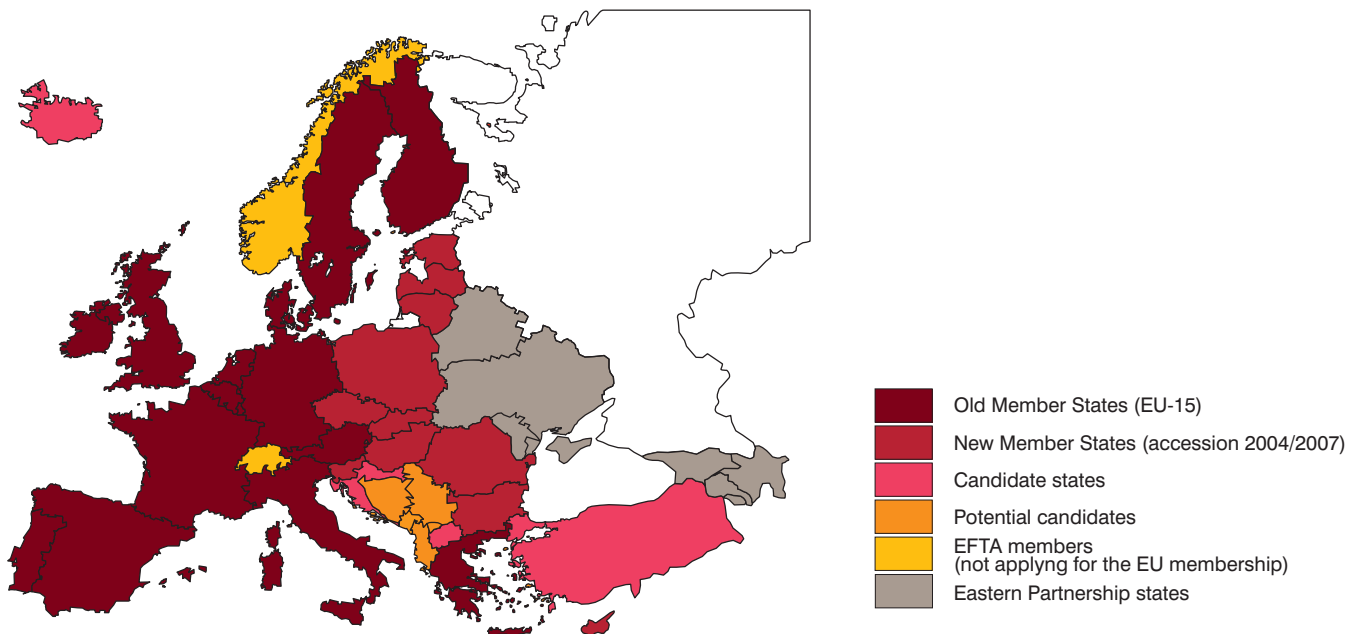
Almost all CEE countries, except Russia, have already either joined the EU, applied for the membership, or expressed interest in developing a very strong relationship with the EU, possibly leading to the membership.

Enlargement of the EU to the Eastern part of Europe became possible after the collapse of the Berlin Wall. The Union established the conditions of a membership during the summit in Copenhagen in 1993. These included the political criteria (democracy and the rule of law), economic criteria (functioning market economy), and legal criteria (adopting the EU law, *acquis communautaire*).

All countries of Central Europe submitted the application in the mid-1990s, and joined the Union in 2004, after 5 years of tough negotiations. Negotiations of Bulgaria and Romania were even more difficult, and the membership of both countries was delayed until 2007.

Similar path was followed by 5 more CEE countries from Western Balkans that sent their applications to Brussels. Out of them Croatia, Montenegro, and Macedonia have been recognized by the EU as “official candidates”, together with Turkey and Iceland, while Serbia and Albania still wait for the recognition. Two remaining Balkan countries, Bosnia and Herzegovina, as well as Kosovo, are seen by the EU as “potential candidates”.

EU enlargement and the current status of non-EU countries



Source: EU Commission

The potential membership of the Eastern European states is not currently on the EU enlargement agenda. However, such prospects may appear sometime in the future, as several countries expressed their interest in much closer links with the EU. For the time being, the enhanced cooperation can be introduced under the Eastern Partnership project of the EU, embracing Ukraine, Belarus, Moldova, together with the Caucasus states.

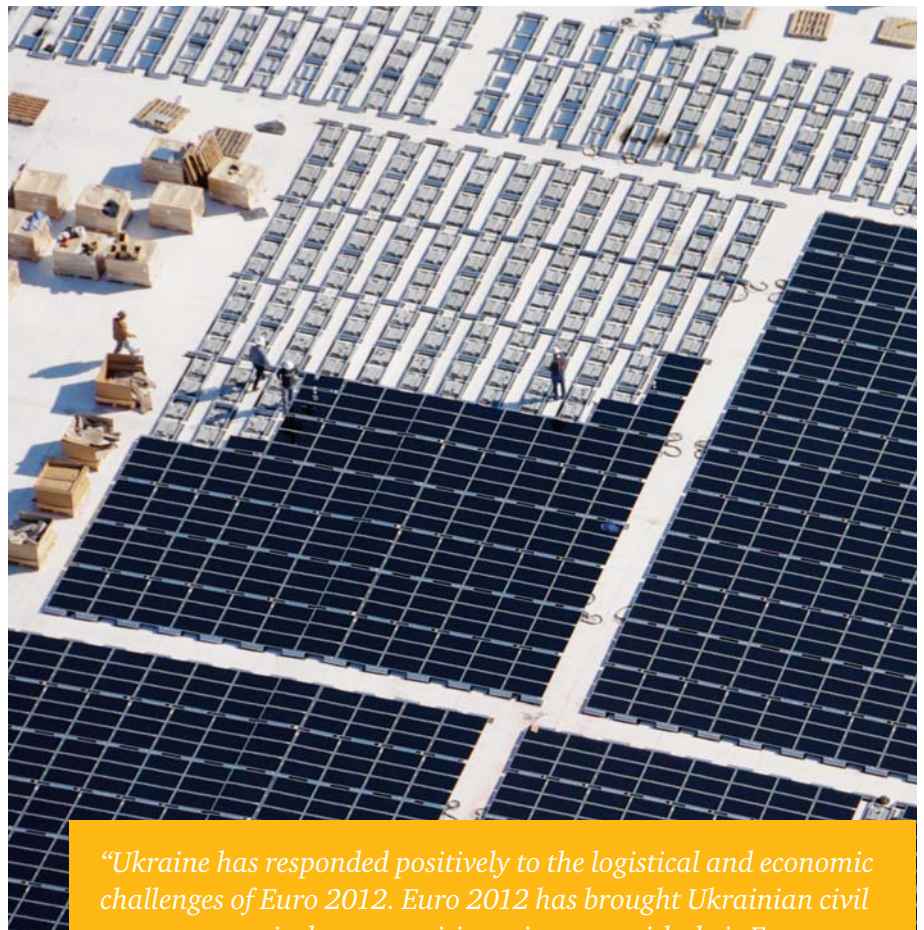
An important question is what kind of possible enlargement of the EU may take place over the next 10 years. Currently, only 3 countries are on a relatively well defined path towards the membership. Croatia concluded the negotiations and is likely to join the Union in 2013. Albeit the negotiations are still in progress, it is also quite likely that Iceland may join about the same time.

The situation of Turkey is more complicated, as the negotiations are much more difficult, and the final accession may be delayed or blocked by several current EU members. Turkey has closed only one out of 35 negotiation chapters; in a majority of chapters the negotiations are either frozen or have not been opened yet. Moreover, tremendous difficulties are expected in many areas, especially in the free movement of workers, agriculture, and environment. The accession may be also postponed by political factors (e.g. disputes concerning the reunification of Cyprus), as well as by social factors (e.g. fears connected with the Turkish emigration). Altogether, it makes us believe that the negotiations will last at least until 2015–2016, and the membership will not be granted before 2019–2020.

It is, however, more probable that a few West Balkan countries may join the EU before Turkey, even if they have not opened negotiations yet. Those countries are relatively small (except for Serbia) and, therefore, their inclusion should not create serious economic problems for the EU.

Nevertheless, chances for the membership of the West Balkan countries crucially depend on their ability to satisfy the Copenhagen criteria, particularly in the area of accepting the *acquis*. As far as the Eastern European countries are concerned, joining the EU, albeit imaginable in a distant future even in the case of Russia, seems to be ruled out over the current decade.

Altogether, future enlargement is not going to influence seriously the 2014-2020 EU budget. The membership may be granted to a group of small countries only, with limited budget allocations reserved for including them into the EU policies. Membership of the only big candidate country, Turkey, as well as the membership of Serbia, is not likely to happen before the end of the decade.



“Ukraine has responded positively to the logistical and economic challenges of Euro 2012. Euro 2012 has brought Ukrainian civil servants practical opportunities to interact with their European counterparts. This exchange of experience is injecting a new energy of European cooperation into Ukrainian government structures, which can only help to assist Ukraine’s further integration into the EU.”

Andy Kuzich, PwC Ukraine

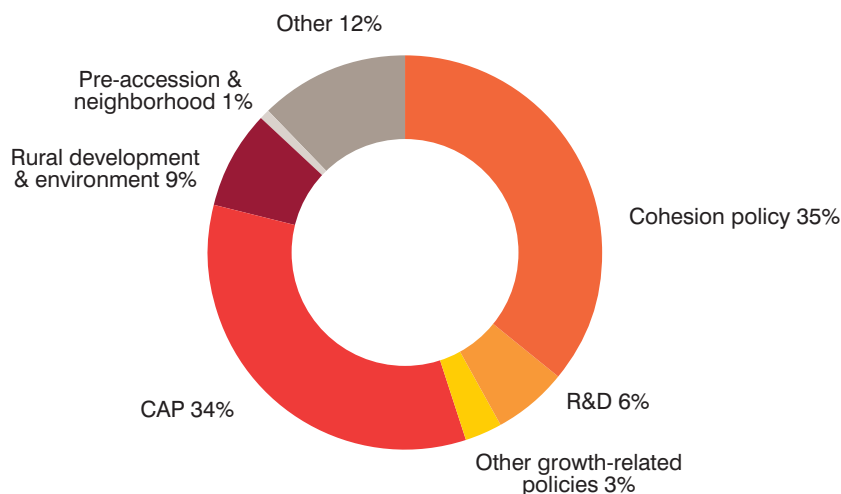
Future EU budget

EU plans its budgets in multiannual frameworks, normally comprising 7 consecutive years. The current Financial Framework covers the period from 2007 to 2013, while the negotiations about the next Financial Framework, for the period from 2014 to 2020, are at a very early stage.

For the time being, the European Commission presented the first proposal of the aggregate 7 year budget only, indicating the proposed size of the revenue and the main directions of the spending. However, the final decision on the EU budget is to be taken by the European Council (the Member States) and accepted by the European Parliament. Therefore, as an agreement should be reached over the next 2 years, one may expect a fierce process of negotiation to take place among the EU Member States.

The current Financial Framework can be generally judged as quite advantageous for the new Member States, as it allocates big resources to the funds channelled towards supporting their development. The total size of the spending in the whole 2007–2013 period is set on the level of EUR 976 billion or 1.15% of the total EU GDP. The cohesion policy, i.e. a policy aimed at reducing the development gap within the EU, is the biggest item of the budget, covering 36% of the total budgetary spending. The second biggest position is the CAP (agricultural policy), covering 34% of the total.

Expenditure structure in the EU Financial Framework for 2007-2013



Source: European Commission

The next Financial Framework, as proposed by the European Commission, is built under the assumption of finding a compromise between various interests of the EU Member States. The West European countries that pay the highest contributions and receive much lower transfers from the EU budget would like to reduce their net contribution. One way of doing it would be to reduce their payments to the budget, another one – to increase their share in the budget outlays, for example in the form of bigger resources spent on the R&D (majority of these funds would go to the most developed countries). On the other hand, new Member States would like to maintain the level of expenditure connected with the cohesion policy. At the same time, a fierce discussion takes place about the future agricultural policy. The main beneficiaries of the CAP try to defend the spending level, while the countries with a smaller agricultural sector tend to demand a reduction.

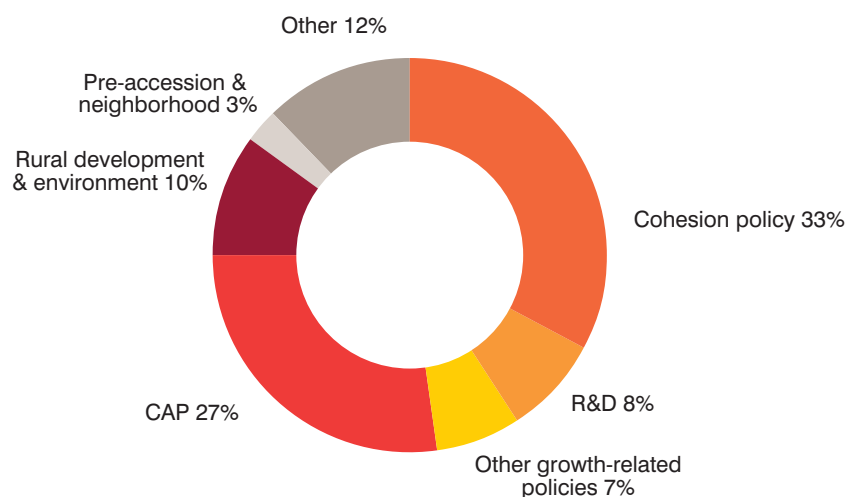
According to the proposal of the European Commission, the next Financial Framework should differ significantly, albeit not revolutionarily, from the previous one. The proposed scale of the budget is set on the level of EUR 1025 billion or 1.05% of the total EU GDP. The cohesion policy (channelled mainly towards the new Member States) remains the biggest spending chapter, comprising 33% of all resources (reduced from 36%).

At the same time, however, the expenditure on the R&D and other growth-related policies (channelled mainly towards EU-15) are proposed to be increased from 9% to 15% of the total spending. The most reduced item in the current proposal is agricultural policy, with its share in the total budget decreasing from 34% to 27%.

“The European Commission’s proposal for the EU budget from 2014 to 2020 is rather modest. Combining on and off budget commitments, the expenditure as a proportion of GDP is expected to decline over this period, in spite of the growing policy responsibilities of the Union. It is questionable whether the demands for action by the EU in an ever less certain world can really be met from such a small budget over the medium term. But even this modest proposal will be contested by some hard-line Member States, with the argument that the EU budget must fall in line with fiscal restraints in the Member States. However, it is unlikely that the structural funds for the new Member States and agricultural subsidy will be cut; the former – because it is clear, even to the hard-liners, that accelerating development in these states is of value to the whole Union; the latter – because cuts will be blocked by the French, and because maintaining agricultural subsidy will be the price the UK has to pay for saving the British budget rebate.”

Alan Mayhew, University of Sussex

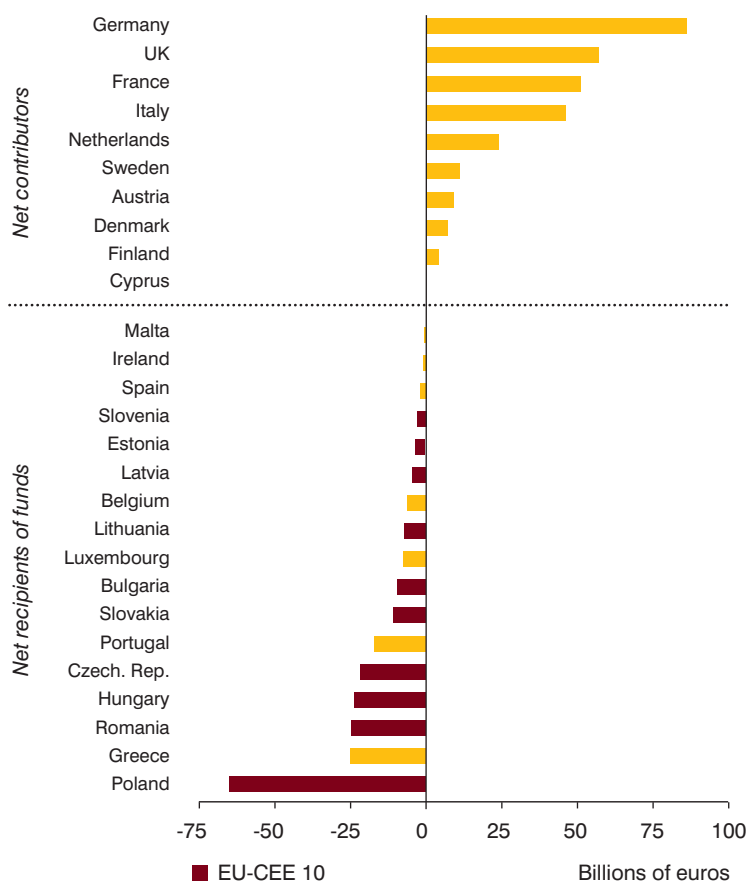
Expenditure structure in the EU Financial Framework for 2007-2013



Source: European Commission

The open questions: development and solidarity

Net contribution to the EU budget, 2007-2013



Source: European Commission, *Open Europe*

One should keep in mind, however, that the proposal of the European Commission is only a starting point for the negotiations among the Member States. In the negotiation process, several challenges should be addressed to find a satisfactory compromise between various interests, and to ensure that the next Financial Framework would serve well the development needs and reflect the principles of the European solidarity.

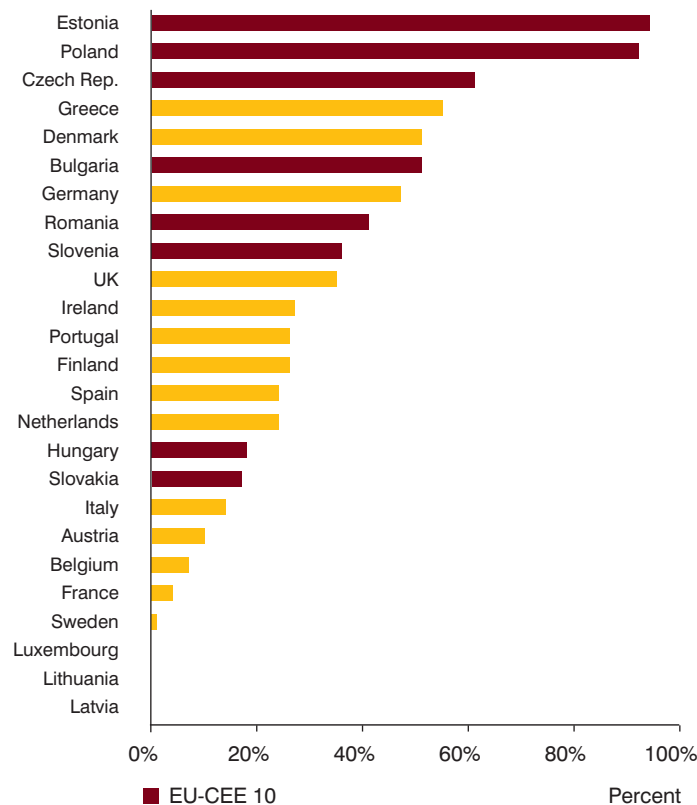
The most important problem that arises is the size and distributive role of the EU budget in the 2014–2020 Financial Framework. The economic and financial crisis, leading to austerity policies at home, made the biggest net payers to the EU

budget even less eager to accept such a position in future. Responding to their worries, the European Commission proposed to reduce the size of the budget from 1.15% to 1.05% of the total EU GDP. Nevertheless, the main net payers, including Germany, France, the UK, and the Netherlands, demand even bigger cuts, with the aim to lower the scale of the budget to 1% of GDP. The difference between the two proposals is around EUR 50 billion, or the equivalent of 15% of the proposed spending on the cohesion policy. If this policy is to carry the main burden of the adjustment, the resources spent on it could be visibly reduced.

Other problems are connected with sharing economic costs of various EU policies. In particular, that remark applies to the EU climate policy. In an ambitious attempt of leading the world in fighting the global warming, the EU leaders agreed on implementing the programme of a 20% reduction of the CO₂ emissions by the year 2020. Moreover, even more radical proposals are formulated for the coming decades.

An economic problem connected with this policy is the cost of the adjustment. Basically, these costs are very high for the countries with the power generation based on coal (the primary energy source generating the biggest CO₂ emissions), and much lower for the countries using other types of energy (e.g. nuclear energy, renewable energy, or natural gas). Moreover, the economic consequences of implementing the climate package are more costly for the countries with a high share of the industry in GDP, and less costly for the economies based on services. Both adverse factors (coal based power generation and a high share of the industry) are typical of the majority of new Member States. Therefore, the European solidarity requires finding a solution that does not put an excessive burden on these countries.

Share of coal in electricity generation, 2007

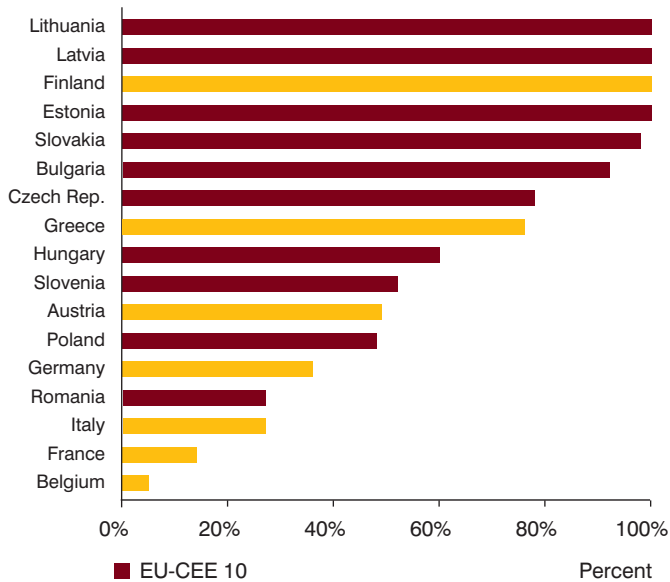


Source: European Commission

“Financial and economic crisis demonstrated risks of economic model depending on international financial markets. All countries must now show credible policy not only in public finances, but also in private sector development. Current situation in Greece and other countries emphasizes not only the need to consolidate debt situation, but also the need to build up competitive economy from long-term perspective.”

Ivan Šramko, PwC, Slovakia
(Former Governor of the National Bank of Slovakia)

Imports of the natural gas from Russia as percent of the domestic gas consumption (2007)



Source: European Commission

Another area in which the European solidarity will be tested is energy security, particularly in the field of natural gas supplies. Although the total supply of natural gas to the EU is pretty diversified, dramatic differences exist among the countries. For the entire EU, 40% of the gas comes from domestic production, 25% from Russia, 17% from Norway, 11% from Algeria, and 7% from other countries.

However, the situation is quite different in individual countries, with the total supply sometimes coming from one supplier. This is particularly the case of several new Member States, fully dependent on supplies from Russia. After major supply disruptions observed in the past, most EU-CEE10 countries do not feel secure and demand a higher degree of the energy policy coordination in the EU.



Possible solutions include bigger liberalization of internal energy market, as well as the EU co-financed investment in new pipelines, reducing the overdependence on one supplier. Such a policy, however, is not fully supported by some West European Member States, which creates serious tensions within the EU.

Are CEE countries ready to compete for EU funds?

Another area of a possible conflict over the principle of solidarity is access to the EU funds. Under current regulations, cohesion funds are guaranteed for the less developed Member States, mainly the EU-CEE10.

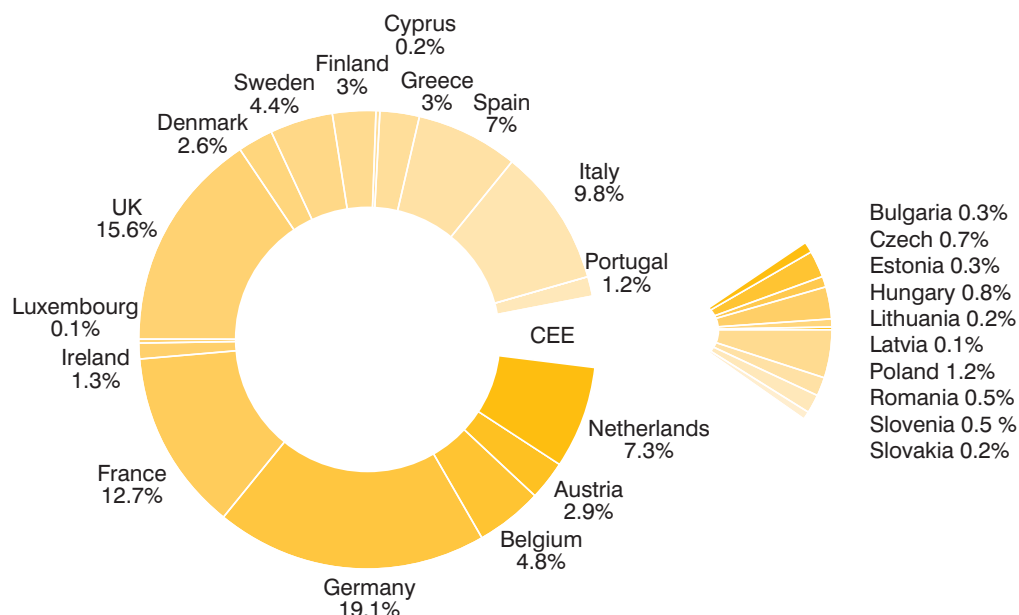
However, it is continuously proposed to make a bigger part of the funds available to every country, based on an open competition. Such rules exist currently in the R&D funding. Based on the experience from this area, can we assess whether the CEE countries are ready to compete for the EU funds?

The R&D funds in the EU 7th Framework Programme (7FP) are distributed on the competitive basis. The amounts allocated to individual countries are not pre-determined, and result from the activity of applicants in various countries and the success rate they are able to achieve.

Therefore, obviously taking all possible caveats into account, the resulting geographical distribution of the FP7 funds resulting from this competitive procedure is a good measure of potential readiness of the CEE Member States to take advantage of the EU funds if they are not pre-assigned to specific countries.

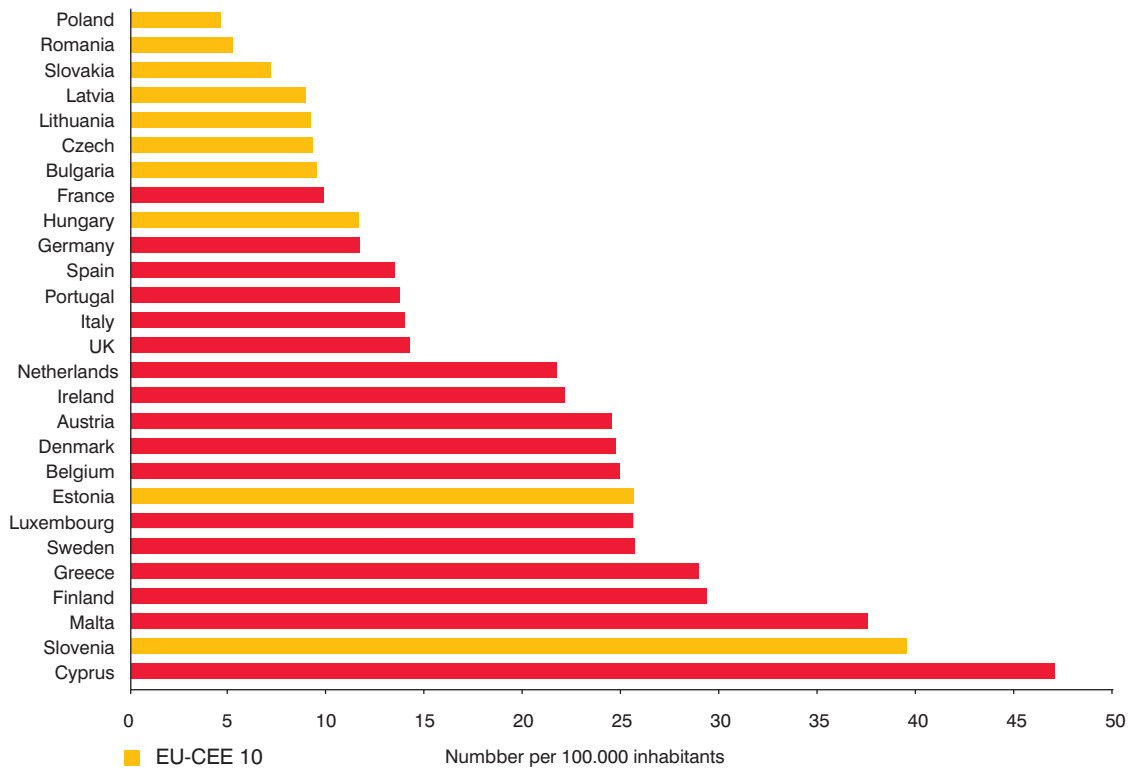
In the years 2007-2009, the EU-CEE10 countries obtained only 9.4% of total funds spent on FP7 financed research. It was more or less equal to the amount obtained by Italy and much less than each of the biggest EU countries: Germany, the UK and France. The biggest CEE country – Poland – was able to obtain funding similar to that of Ireland or Portugal.

Distribution of FP7 funds by EU countries, 2007-2009



Source: European Commission

Numbers of FP7 applications per 100 000 of inhabitants, 2007-2009

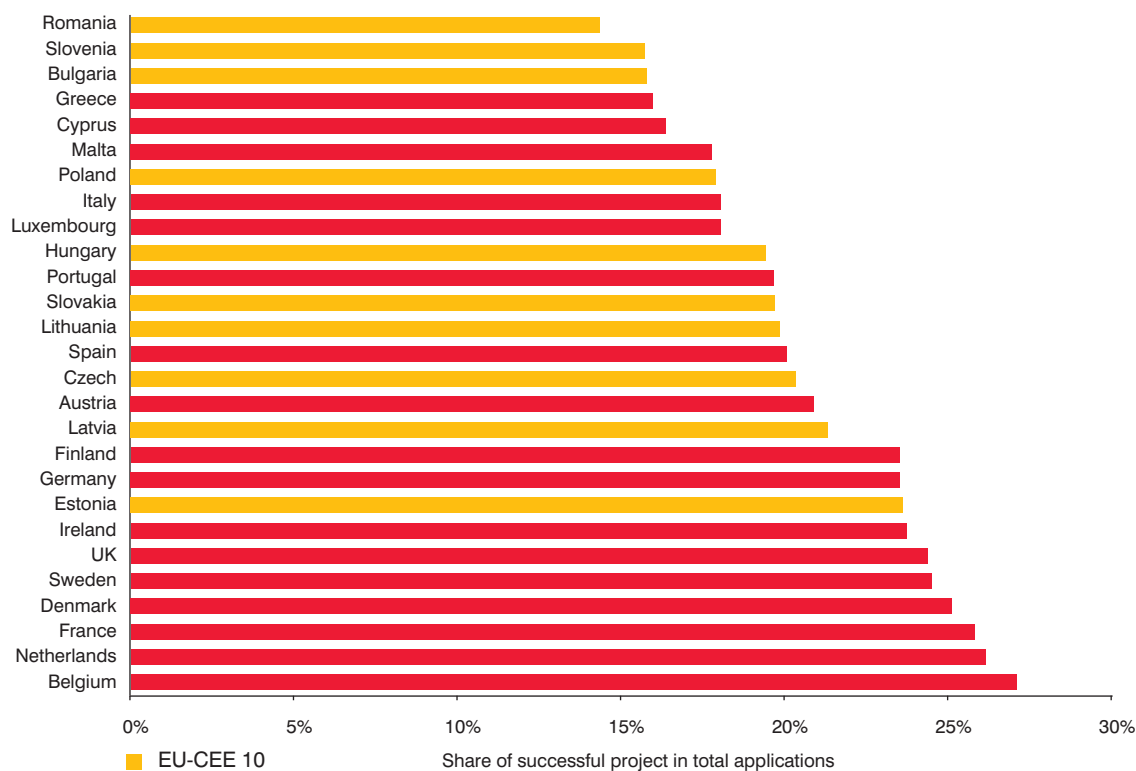


Source: European Commission

There are two main reasons for which the CEE countries are so poorly represented in FP7 programmes. The first one is quite low number of applicants, and the second one is lower than average success rate.

Research institutions from most CEE EU Member States in the years 2007–2009 were able to send less than 10 applications per 100,000 inhabitants. Only two relatively small countries – Estonia and Slovenia – prepared more applications. It means that research institutions in the CEE countries are less interested in obtaining EU financing for their projects than their counterparts in Western Europe. It can result from the lack of self-confidence, from insufficient development of mechanisms encouraging such a pro-active behaviour but also from more general institutional mismatch between the EU granting entities and some CEE research institutions. Which of these three dominates and why could be an interesting subject for a further research.

The average success rates of FP7 applications by EU countries, 2007-2009



Source: European Commission

A more serious problem, however, is the lower than average success rate of CEE research institutions in applying for funds, which to some extent explains their limited willingness to invest resources in time consuming process of filing FP7 applications. Only Estonian institutions reached the success rate above the EU average of 22%. For most CEE countries, the success rate was below 20%, and for three of them it barely reached 15%. The first, most evident explanation for this poor performance would be obviously low quality of the proposals submitted. It seems, however, that this issue would also require a deeper and more rigorous analysis.

Obviously, one should be careful while generalizing this experience with regard to all EU funds. A poor performance of CEE research institutions applying for FP7 projects is not a decisive argument when assessing the readiness of the CEE economies to compete for future funds. The area of R&D is very peculiar and, most probably, the technological and organizational distance in this area is much bigger than in other fields. It is, however, a worrying experience that has to be taken into account when discussing the future of the EU financing mechanisms. And, above all, an indication that the strengthening of domestic public institutions should still be a priority for the CEE countries.

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