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The Impact of the Global Economic Crisis in the Old and New Cohesion Member States of the European Union

SUMMARY: Within the European Union cohesion member states were hit hardest by the global economic crisis. In this region, development relied more heavily on the influx of foreign capital compared to other emerging regions, which, in turn, made these countries more vulnerable to the effects of the crisis. The extent of the downturn depended on the imbalances accumulated before the crisis. As a result, the growth outlooks of Poland, Slovakia, and the Czech Republic have deteriorated least, whereas Hungary fell behind the Visegrád countries. Ireland and the new cohesion member states facing a difficult situation reacted more flexibly to the crisis than the Mediterranean countries. The cohesion member states suffered more significant losses in areas key to growth potential (investments, education, innovation), and were forced to employ harsher austerity measures in these areas compared to the Northern/Western central states, which supports econometric analyses forecasting a slow-down of convergence. This also makes it necessary to redefine the concept of integration.*

KEYWORDS: European integration, cohesion countries, convergence

JEL CODES: O43, P16, P52

The impact of the economic crisis was dramatic in certain Member States of the European Union; as early as in 2008, Hungary and Latvia received combined rescue packages from the International Monetary Fund (IMF), the World Bank and the European Union. Romania turned to the IMF in 2009 and again in 2011. In 2010, Greece, as a member of the euro area, received a loan from the EU and the IMF. In the same year, a financial aid

package was approved for Ireland, followed by Portugal in 2011. Seeing the above series, the question begs itself whether it was really an accident that the most vulnerable countries were all old and new, so-called cohesion countries of the EU that received support from the Cohesion Fund. In the media, as well as among experts, talking about the core countries or the centre and periphery of the EU quickly became common and accepted. Should the crisis end one day, will this period have consequences, will the countries return to the promising track they have followed during their 5–25 year integration membership?

Our study will attempt to review possible answers to these questions based on the evolution of the crisis to date. This is essentially important as one of the fundamental goals of

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European integration is to provide an opportunity to less developed Member States for convergence and to strengthen social cohesion, which is also expressed in a separate cohesion policy. The grave problems of old cohesion countries are a particularly unexpected shock for integration, as their adaptation is usually considered a closed and completed process. Accordingly, all EU analyses and literature examine old cohesion countries as part of the EU-15, i.e. the old Member States, and only separate new Member States.

The detailed reconstruction of the evolution of the crisis in these countries would reach far beyond the scope of this study. For this reason, the first part of our study looks only at characteristics that could explain the higher degree of vulnerability of cohesion countries. In order to present the data in a clear and comprehensible manner, of the new Member States we shall omit the statistical data of Cyprus and Malta, as they are island states with populations of only a few hundred thousand people which do not share the common past and history of the Eastern and Central-European region. In the following, we will be examining what measurable impact the crisis has had on convergence results measured in GDP and consumption, as well as social cohesion until now. Then we will be taking a look at how long-term sources of growth, such as investments, the education system and research and development have been impacted by the crisis. After this, we will compare what various long-term forecasts show regarding growth paths after the crisis. We will use this as a basis to formulate conclusions on EU and Member State economic policy.

THE UNIQUE FEATURES OF THE EVOLUTION OF THE CRISIS IN COHESION COUNTRIES

The impact of the crisis on economic growth shows a sizeable difference between Mediterranean countries and new Member States. At

the outbreak of the crisis, until the final quarter of 2008 Eastern and Central European countries seemed resistant as they were hardly infected with toxic securities. In 2009, however, the rate of decline exceeded the EU average – with the exception of Poland – in every new Member State, with the Baltic states suffering extremely large losses. By 2011, though, with the exception of Hungary and Slovenia, growth once again climbed above the EU average and this trend seems to be carrying on in 2012 as well. In contrast, of the old cohesion countries, only Ireland experienced an immediate, strong recession; the others were faced with smaller scale, but prolonged downturn. In terms of unemployment, with the exception of the Czech Republic, Poland, Romania and Slovenia, all cohesion countries ended up in situations less favourable than the EU average (*see Table 1*).

This development could come as a surprise because the convergence of both old and new cohesion countries is usually presented as a success story - and for good reason. Regardless of whether we measure convergence in GDP or consumption levels, between 1970 and 2009 no other region (East-Asia or Latin America), or any other part of the world saw such convergence among countries (Gill – Raiser, 2011).

There was one special feature that acted as a catalyst for the eruption of the crisis in the region – a unique characteristic of the European convergence model – namely, that it builds on high volumes of foreign capital parallel to a relatively low rate of domestic savings. In the 2000s, proportionate to GDP, foreign capital inflow to both old and new cohesion countries far exceeded that of other regions (Gill – Raiser, 2011; Fabrizio et al, 2009; Gallego et al 2010). In the same period, the gross savings rate in emerging European countries was under 20 per cent (in the Czech Republic, Hungary and Slovakia it exceeded 19 per cent, while in Slovenia it topped 23 per

Table 1

THE GROWTH RATE OF REAL GDP AND UNEMPLOYMENT RATE IN THE EUROPEAN UNION AND COHESION MEMBER STATES DURING THE CRISIS

	2008	2009	2010	2011 (e)	2012 (e)	2008	2009	2010
	Real-GDP growth rate					Unemployment rate		
EU-27	0,3	-4,3	1,9	1,6	0,6	7,1	9	9,7
EU-15	0,0	-4,3	1,9	1,5	0,5	7,2	9,2	9,6
Old cohesion countries								
Ireland	-3	-7	-0,4	1,1	1,1	6,3	11,9	13,7
Greece	-0,2	-3,3	-3,5	-5,5	-2,8	7,7	9,5	12,6
Spain	0,9	-3,7	-0,1	0,7	0,7	11,3	18	20,1
Portugal*	0,0	-2,5	1,4	-1,9	-3	8,5	10,6	12
New cohesion countries								
Bulgaria	6,2	-5,5	0,2	2,2	2,3	5,6	6,8	10,2
Czech Republic	3,1	-4,7	2,7	1,8	0,7	4,4	6,7	7,3
Estonia	-3,7	-14,3	2,3	8	3,2	5,5	13,8	16,9
Latvia	-3,3	-17,7	-0,3	4,5	2,5	7,5	17,1	18,7
Lithuania	2,9	-14,8	1,4	6,1	3,4	5,8	13,7	17,8
Hungary	0,9	-6,8	1,3	1,4	0,5	7,8	10	11,2
Poland	5,1	1,6	3,9	4	2,5	7,1	8,2	9,6
Romania	7,3	-6,6	-1,9	1,7	2,1	5,8	6,9	7,3
Slovenia	3,6	-8	1,4	1,1	1	4,4	5,9	7,3
Slovakia	5,9	-4,9	4,2	2,9	1,1	9,5	12	14,4

f=forecast

* Unemployment rates for Portugal are estimates

Source: Eurostat

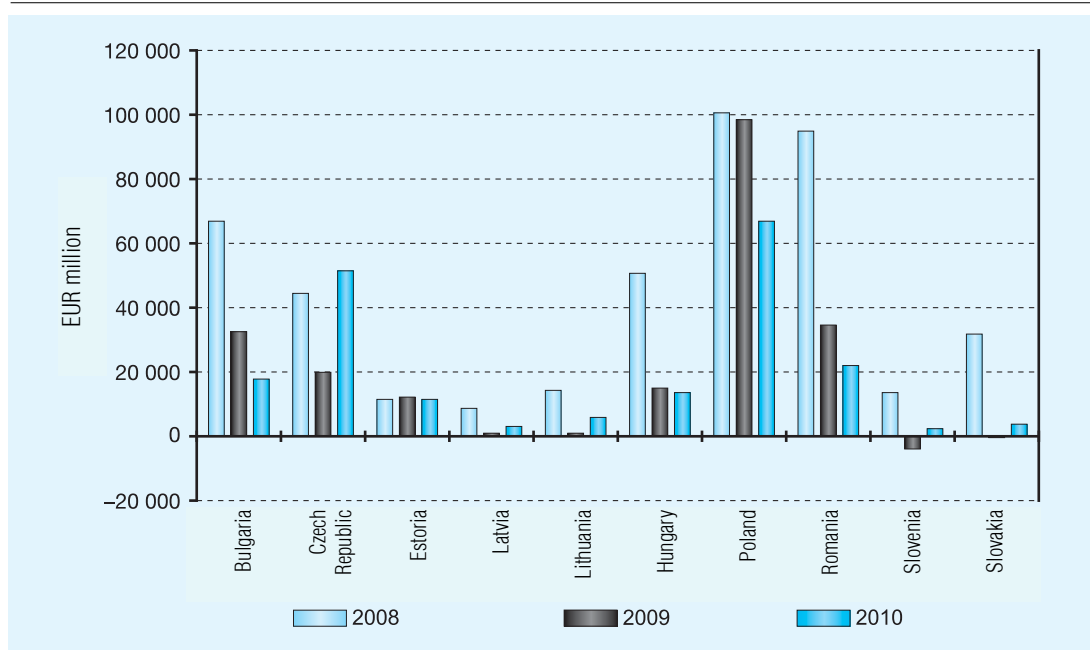
cent¹); in emerging Asian countries, however, it fluctuated between 30–40 per cent (Herrmann – Winkler, 2009, p. 12). This was accompanied by the fact that during the decade prior to the crisis, there were deficits in the balances of current accounts. In Greece, Portugal, the Baltic States, Bulgaria and Romania, the rate of deficit was between 10 and 20 per cent, while in the other countries it was under 10 per cent.² At the same time, the real prices indicating the development of price and cost competitiveness were continually appreciating; while Germany’s competitive strength increased, the countries of the Mediterranean and Ireland were losing their competitive edge. Of the new cohesion states, Poland and Slovenia showed the lowest rate of appreciation (European Commission, 2010b).

From September 2008, with the deepening crisis, confidence in emerging markets was shaken. Certain countries underwent a withdrawal of net capital which affected the various capital elements (FDI, portfolio and other investments) in a variety of ways; stock exchange prices dropped, and the yields of government securities and CDS-premiums increased. Narrowing export opportunities further deepened the crisis and led to the real-economic downturn presented above (Gardó – Martin, 2010).³ With the exception of the Czech Republic and Estonia, FDI inflow, of particular importance to convergence, failed to reach the pre-crisis level in 2010 as well (see Figure 1).

The severity of recession depended on the degree of disequilibrium present in the econo-

Figure 1

INFLOW OF WORKING CAPITAL INTO NEW COHESION MEMBER STATES DURING THE CRISIS



Source: Eurostat

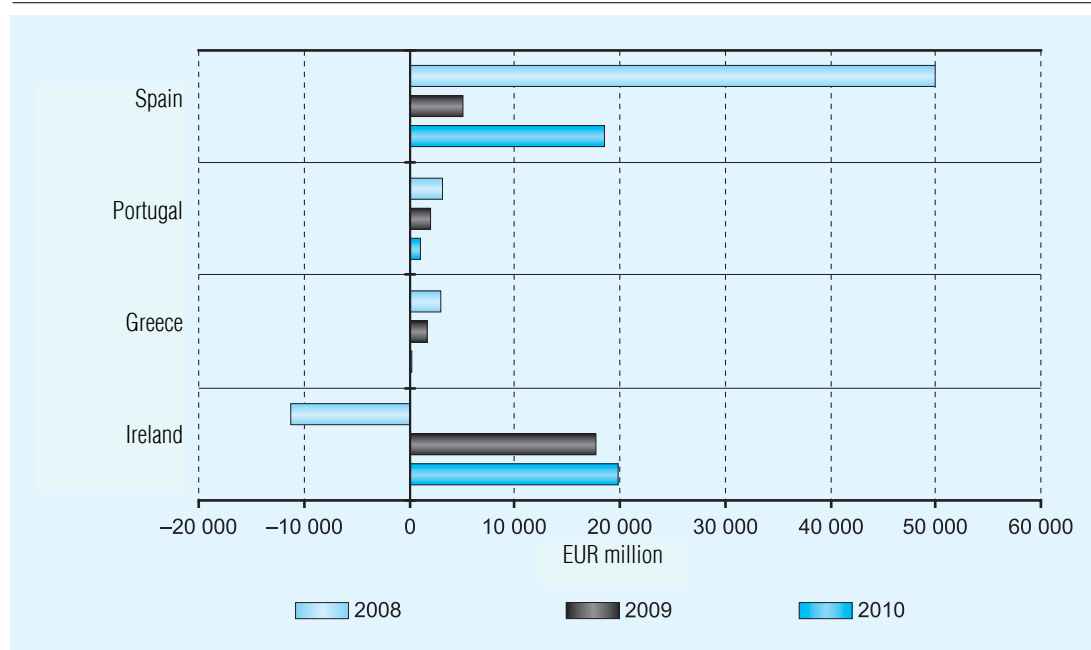
my before the crisis. In the three Baltic states, Bulgaria and Romania growth in the period preceding the crisis was driven by domestic demand, whereas the contribution of net exports to growth was negative. At the same time in the Central European countries the composition of growth was more balanced (European Commission, 2009a). In the Baltic States overheated real estate markets, which subsequently collapsed during the crisis, were important areas of disequilibrium. No real estate bubble developed in Slovenia, but the economy was overheated when the crisis broke out (Tajnikar et al, 2010). At the beginning of the crisis public debt was high only in Hungary; that is one of the reasons the country needed immediate assistance. In the rest of the new cohesion countries public debt has remained under the 60 per cent rate stipulated by the Maastricht Treaty, but with the exception of Estonia and Bulgaria, public debt rates have started to increase significantly.⁴

In the old cohesion countries inflow of FDI has also dropped. Ireland hit bottom in this regard in 2008, when it suffered definite losses (see Figure 2). The composition of foreign capital, however, is different from that of new cohesion countries. On the one hand, in the Mediterranean countries capital inflows and other investments made while EUR interest rates were low were the main form of foreign direct investment (Gill – Raiser, 2011). On the other hand, in the old cohesion countries the rate of domestic and external FDI portfolios are similar, whereas in the new Member States domestic FDI portfolios exceed external portfolios several times over [in the individual Member States this rate ranged between twice (Slovenia) and 46 times (Romania) in 2008⁵].

The different composition of foreign capital can be observed in the banking sector as well. In the new cohesion countries banking instruments were 60–90 per cent foreign-owned, whereas the same ratio for the old countries

Figure 2

INFLOW OF WORKING CAPITAL INTO OLD COHESION MEMBER STATES DURING THE CRISIS



Source: Eurostat

was between 10–50 per cent (European Central Bank, 2010, p. 20). Despite this difference, due to financial integration, external vulnerability reached critical levels in both groups. In the Mediterranean countries, net foreign liabilities were around 80–100 per cent of the GDP at the start of the crisis (European Commission, 2010b, p. 15). The average of the new Member States was over 60 per cent, and in the case of Bulgaria and Hungary exceeded 100 per cent (Jevěák et al, 2010, p. 6).

Of the old cohesion countries, Ireland and Spain were engaged in disciplined fiscal policy before the crisis, but a real estate bubble developed in both countries, and the rupturing of these bubbles led to a crisis in the banking system. This was particularly tragic for Ireland, because relative to GDP, its banking sector was the largest in Europe (OECD, 2009b; Udvari, 2012). In 2010, as a result of the consolidation of the banking sector, the annual budget deficit of the country amounted to 31.3 per

cent of the GDP. By 2010 public debt – which in 2007 did not even reach 25 per cent – was 92.5 per cent.⁶ In Greece and Portugal, in addition to external disequilibrium, the fiscal policies followed by these countries also exhibited certain disciplinary problems after the introduction of the euro. Twin deficits developed and Portugal stepped off the path of convergence at the start of the 2000s. All three Mediterranean countries were characterised by stagnating productivity starting in the beginning of the 2000s. Greece, in particular, was characterised by a distinct drop in productivity (Kószó – Udvari, 2012; Mitsopoulos – Pelagidis, 2011; OECD, 2009a; OECD, 2010a; OECD, 2010b; Royo, 2010).

Overall, it can be established that both the old and new cohesion countries had based their economic convergence on foreign direct investment, which made them particularly vulnerable during the global economic crisis. There have been, however, significant differ-

ences in terms of the depth and duration of the crises affecting these countries, which were directly related to how severe the disequilibriums affecting the economy were before the crisis (see Figure 3). Accordingly, to date Poland, Slovakia and the Czech Republic have done the best job of riding out the crisis.

THE EFFECTS OF THE CRISIS SO FAR ON CONVERGENCE MEASURED IN TERMS OF THE GDP AND CONSUMPTION AS WELL AS ON SOCIAL COHESION

After the spectacular results achieved in the decade and a half before the crisis, the crisis brought convergence measured in terms of the

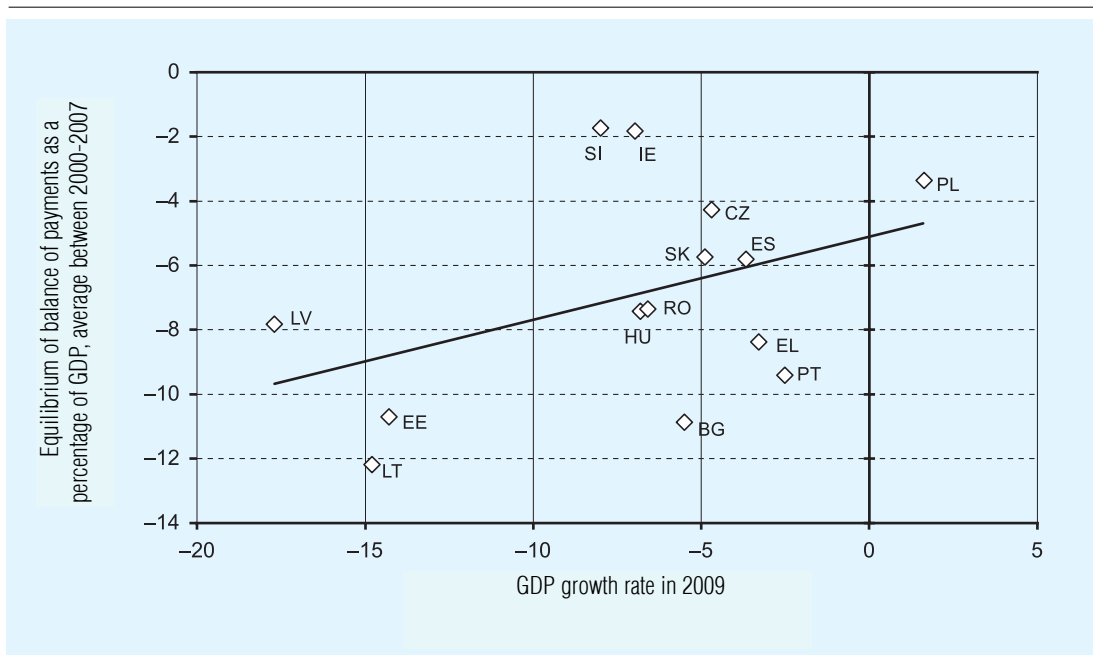
GDP to a clear halt (the comparison takes the end of the Central European transformation downturn of 1995 as a starting date). Of the 14 Member States, between 2008 and 2010, the relative situations of only Portugal, Slovakia, Hungary, Poland and Bulgaria had not deteriorated (see Figure 4).

The situation of households can be much better described by actual final consumption relative to the EU 27 average, which includes both private consumption as well as the share of government consumption dedicated to individuals. These five Member States already mentioned do not include Hungary and Bulgaria (see Figure 5).

The comparison of actual consumption and its development in proportion to EU-average

Figure 3

DROP IN GDP GROWTH RATES IN 2009 AND THE EQUILIBRIUM OF THE BALANCE OF PAYMENTS AS A PERCENTAGE OF GDP AVERAGE BETWEEN 2000–2007

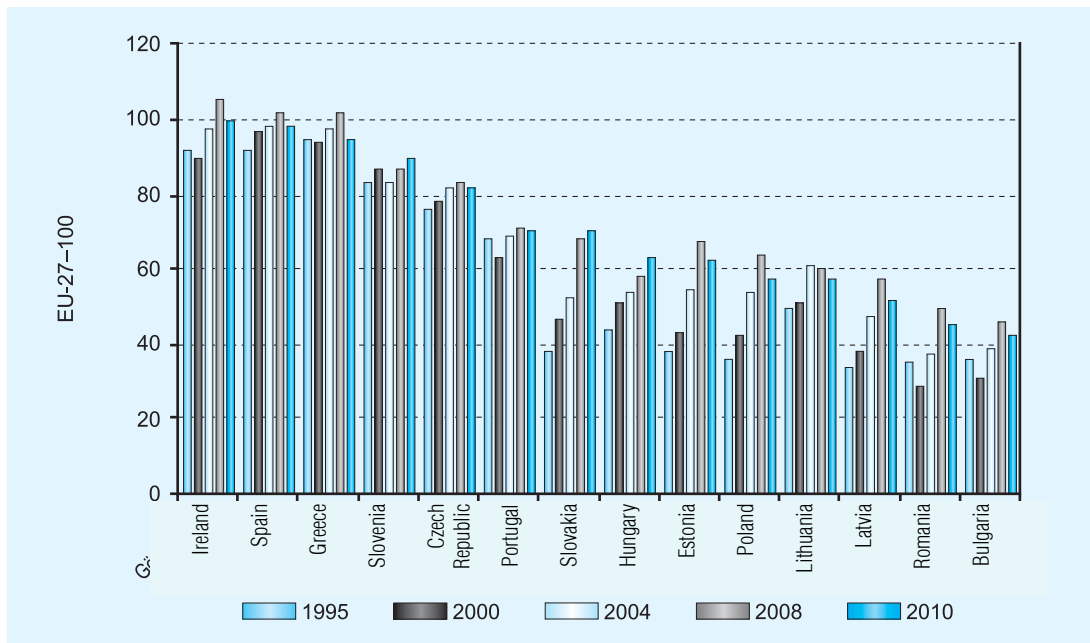


Note: As a result of the slow to develop, but prolonged crisis, the correlation coefficient indicating the correlation between the balance of payment deficit of the Mediterranean countries in the 2000-2007 period compared to the GDP and the economic downturn in 2009 was higher in the case of the new Member States (0.576) than in all of the cohesion countries (0.411) put together, as shown in the figure. Disequilibriums are a much more complex phenomenon, and the balance of payments deficit is only one, although very important, indicator used to describe this phenomenon; this is illustrated by the figure above.

Source: Author's own calculation based on Eurostat

Figure 4

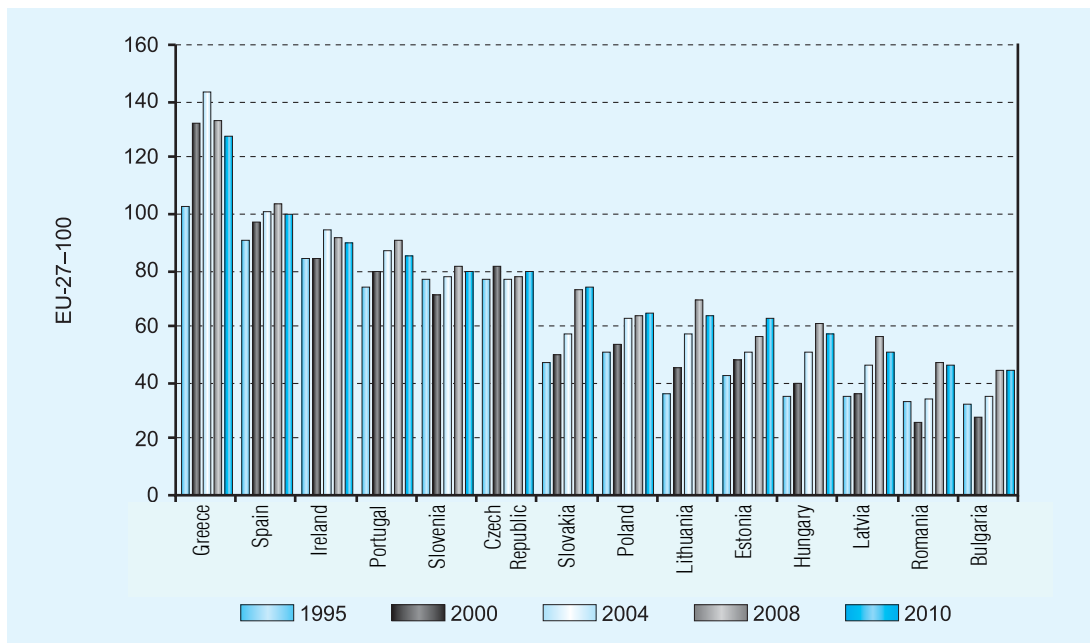
THE DEVELOPMENT OF PER CAPITA GDP AT PURCHASING POWER PARITY IN OLD AND NEW COHESION COUNTRIES COMPARED TO THE EU-27 AVERAGE



Source: Eurostat

Figure 5

THE DEVELOPMENT OF PER CAPITA ACTUAL CONSUMPTION IN OLD AND NEW COHESION COUNTRIES COMPARED TO THE EU-27 AVERAGE



Source: Author's own calculations based on AMECO database

GDP casts a new light on our view of the situation of cohesion countries and their results achieved in terms of convergence. In Ireland, in the mid-1990s the relative size of the GDP was just 9 percentage points above consumption, while in the 2000s, this difference ranged between 30–40 percentage points (!). On the other hand Greece's consumption figures exceed its GDP production position by a steady 7–9 percentage points. Moreover, based on 2010 data it was at the forefront of the 14 cohesion countries (compared to the EU average). The other notorious over-consumer is Portugal, at rates comparable to those of Greece. Lithuania, with lower consumption figures, is also a case in point. In the case of Spain, Poland, Latvia, Romania and Bulgaria, consumption and GDP move, relatively speaking, hand in hand. The GDP positions of Slovenia, Slovakia, Hungary, and Estonia have improved (by approximately 5 percentage points) since their accession to the EU. Due to its favourable starting position, the Czech Republic did not lose its runner-up position among new Member States; however, in 1995, per capita final consumption was 68 per cent of the EU average and in 2010 was still only 70 per cent. Compared to 1995, Hungary dropped to fourth place in 2010 from third place (convergence of 14 percentage points), but as regards consumption Hungary slid back to seventh place among the new Member States (convergence of 8 percentage points compared to the EU average). The biggest winner is Slovakia, which between 1995 and 2010 improved its situation by 27 and 32 percentage points in GDP and consumption respectively. In spite of the crisis, in 2010 the Baltic States managed to safeguard the approximately 20 percentage point convergence result in consumption as well.

The change of the situation regarding relative consumption already reflects the effect of the wage adjustment implemented in countries

most impacted by the crisis. Whether in terms of real wages or real labour unit costs, the largest reductions have been achieved by Latvia, Lithuania, Hungary and Romania. The Mediterranean countries affected by the crisis were only able to achieve considerably smaller reductions in comparison.⁷

Until this point, the system of social allowances was able to deflect the effects of the first shock of the crisis and the relative situation of cohesion Member States did not deteriorate. The welfare systems of the Mediterranean countries were already known to operate with a very low level of efficiency, well documented by a comparison of the at-risk-of-poverty rates before and after social transfers as well as by the Gini index. Of the new Member States, only Slovenia and Hungary show better results. At the same time, at-risk-of-poverty rates reported by the Czech Republic and Slovakia even before social transfers were so low that any reader would rightly have doubts about the correctness of the data. The poverty indicator used for the purposes of the EU 2020 strategy includes people with no access to basic items of wealth, low work intensity families in addition to the people at risk of poverty (avoiding any overlaps between these three categories). This indicator increases the number of people in poverty in Hungary for example to one third. Considering that neither the Gini coefficient, nor the new indicator increased during the crisis, we shall use the data from 2010 (*see Table 2*).

It can be ascertained that the cohesion countries have not only experienced a downturn in the absolute sense of the word, but some of their convergence achievements have suffered to boot, both apparent when measured in terms of the per capita GDP figures as well as the final consumption figures of households. Presumably, the effect on social cohesion will only be measurable once the austerity packages have been implemented.

Table 2

THE DEVELOPMENT OF AT-RISK-OF-POVERTY RATES AND SOCIAL DISEQUILIBRIUM IN THE EU DURING THE YEARS OF THE CRISIS

	At-risk-of-poverty				The effect of transfers		Gini-coefficient	EU 2020 poverty indicator
	before social transfers		after social transfers		in reducing the risk of poverty			
	2008	2010	2008	2010	2008	2010		
EU-27	25.1	25.7	16.4	16.4	8.7	9.3	30.4	23.4
Belgium	27	26.7	14.7	14.6	12.3	12.1	26.6	20.8
Bulgaria	27.1	27.1	21.4	20.7	5.7	6.4	33.2	41.6
Czech Republic	20	18.1	9	9	11	9.1	24.9	14.4
Denmark	27.8	29.1	11.8	13.3	16	15.8	26.9	18.3
Germany	24.2	24.2	15.2	15.6	9	8.6	29.3	19.7
Estonia	24.7	24.9	19.5	15.8	5.2	9.1	31.3	21.7
Ireland	34	–	15.5	–	18.5	–	–	–
Greece	23.3	23.8	20.3	20.1	3	3.7	32.9	27.7
Spain	24.1	28.1	19.6	20.7	4.5	7.4	33.9	25.5
France	22.8	25	12.7	13.5	10.1	11.5	29.9	19.3
Italy	23.4	23.3	18.7	18.2	4.7	5.1	31.2	24.5
Cyprus	21.5	–	16.2	–	5.3	–	–	–
Latvia	30.2	29.1	25.6	21.3	4.6	7.8	36.1	38.1
Lithuania	27.2	31.8	20	20.2	7.2	11.6	36.9	33.4
Luxembourg	23.6	29.1	13.4	14.5	10.2	14.6	27.9	17.1
Hungary	30.4	28.4	12.4	12.3	18	16.1	24.1	29.9
Malta	22.7	22.9	15	15.5	7.7	7.4	28.4	20.6
Netherlands	19.9	21.1	10.5	10.3	9.4	10.8	25.5	15.1
Austria	24.5	24.1	12.4	12.1	12.1	12	26.1	16.6
Poland	25.1	24.4	16.9	17.6	8.2	6.8	31.1	27.8
Portugal	24.9	26.4	18.5	17.9	6.4	8.5	33.7	25.3
Romania	30.7	27.5	23.4	21.1	7.3	6.4	33.3	41.4
Slovenia	23	24.2	12.3	12.7	10.7	11.5	23.8	18.3
Slovakia	18.4	19.8	10.9	12	7.5	7.8	25.9	20.6
Finland	27.3	27	13.6	13.1	13.7	13.9	25.4	16.9
Sweden	28.5	26.7	12.2	12.9	16.3	13.8	24.1	15
United Kingdom	28.9	31	18.7	17.1	10.2	13.9	33	23.1

Note: On the one hand, the poverty indicator of the EU 2020 describes the ratio of people living below the at-risk-of-poverty threshold (i.e. below 60 per cent of the national median of available income) as well as people who are unable to satisfy at least four of the nine basic needs specified, and thirdly the ratio of people living in low work intensity households, i.e. households where the working potential of household members between the ages of 18 and 59 is utilised at a rate of less than 20 per cent. Each person is counted once regardless of the number of applicable categories.

Source: Eurostat

THE EFFECT OF THE CRISIS ON SOURCES OF LONG-TERM GROWTH

One can only discern the effects of the crisis on long-term growth and, accordingly, on conver-

gence, if one takes account of the most important factors involved. Most current growth theories rely on the general consensus that in addition to investments, the development of human capital, especially the relevant systems

of education and innovation have a key role in long-term growth. The rate at which these systems have been protected and preserved, or cut during the crisis is a clear measure of the future growth potential of individual countries.⁸

If the EU 27 Member States are ordered by which country suffered the greatest decline in gross investment, no old, non-cohesion Member States can be found among the first twelve on the list, even though the denominator of this ratio, the GDP, dropped in these countries more severely (see Figure 6).

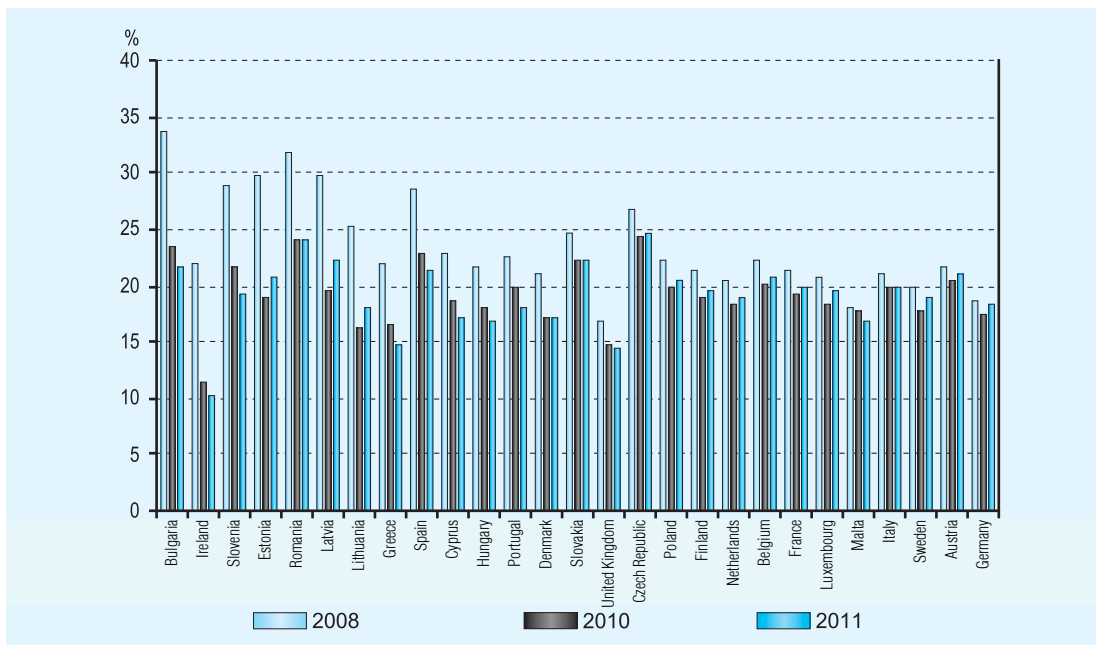
As a result of the global economic crisis and the resulting increase in government debt, the Member States are forced to reduce fiscal expenditure, which may also put educational system expenditure into jeopardy. This assumption cannot yet be verified in the Eurostat database, as the latest data are from 2008. On the other hand, the Commission had an analysis drawn up in connection with the

EU 2020 strategy on the educational situation in the individual Member States, which also covers the development of the related financing (European Commission, 2011a). Based on these there seem to be significant differences between the Member States, based primarily on the severity of the downturn brought about by the crisis (see Table 3).

Of the old, non-cohesion Member States fiscal austerity measures have only been introduced in the Netherlands and the United Kingdom. In the UK the cutbacks in the field of higher education have been extremely severe; however, the country's budget has been left with very little elbow room as a result of the enormous burdens represented by the consolidation of the financial sector. The educational system of Italy has been vastly underperforming even without any financial austerity measures. Fiscal austerity measures have been introduced in all four of the old cohesion coun-

Figure 6

DEVELOPMENT OF GROSS INVESTMENTS AS A PERCENTAGE OF THE GDP



Note: 2011 forecast

Source: Eurostat

Table 3

COMMUNITY FINANCING OF SYSTEMS OF EDUCATION IN THE MEMBER STATES OF THE EU DURING THE YEARS OF THE CRISIS

Member State	Fiscal austerity measures	The Commission's description of the budget situation
Austria	no	Education budget increased in 2011
Belgium	no	Savings in areas of less than primary importance
Bulgaria	yes*	20 per cent decrease of university and ministry budgets
Cyprus	no	Budget increased
Czech Republic	yes*	Continuous decrease
Denmark	yes	14 per cent increase of expenditure between 2008-2010, followed by stabilisation after slight decrease
Estonia	no	General expenditure level did not decrease due to foreign support; strategic area as of 2011
Finland	no	A strategic area during the crisis as well
France	yes	Partial, slight decrease in public education, development in higher education
Germany	no	Continuous growth
Greece	yes***	Drastic decrease from an already low level
Hungary	yes**	No expenditure cutbacks in higher education until 2011, cutbacks expected in this field in the future as well
Ireland	yes**	Drastic decrease from a relatively high level, with entering age groups of increasing number
Italy	no**	Expenditure is limited, but the correlation between financing and performance is weak within the educational system as well.
Latvia	yes**	Increase of expenditure planned in higher education
Lithuania	yes**	The schooling assistance provided to children from disadvantaged families was the only type of support that was not cut
Luxembourg	no	Slight growth
Malta	no	Considerable growth in spite of crisis
Netherlands	yes*	Attempts are being made to improve efficiency with similar or lower levels of financing
Poland	no	Continuous increase of expenditure
Portugal	yes***	Drastic decrease from a relatively low level
Romania	yes***	Drastic decrease from a relatively low level, achieved after a decade of efforts
Slovakia	yes*	Further drastic decreases following GDP-proportionate decreases of expenditures in the last decade
Slovenia	no	Education expenditures were maintained and higher education and research expenditure was increased in spite of severe exposure to crisis
Spain	yes	Minor decrease following a longer phase of development, during which financing fell short of the EU average even before the crisis
Sweden	no	Due to budget reserves, education expenditures increased in spite of severe exposure to the crisis
United Kingdom	yes**	Public education has been spared compared to other areas; drastic tuition fees have been introduced in higher education, which have been offset by student loans

Note:

* The evaluation shows that the authors of the report feel there would be room to increase education financing; it is the political will, however, that seems to be lacking.

** The creators of the report consider the effects of the austerity measure dangerous, see very little room in the budget, but do not view the situation as hopeless.

*** The education system suffers grave damage, but the makers of the report do not put forward recommendations due to the hopeless budget situation.

Source: Author's own editing based on European Commission (2011a)

tries. The only country where the extent of these stringency measures has not reached drastic levels is Spain. The difference is that in Ireland an advanced system of education was left to bear the brunt of the cutbacks. As the result of lengthy efforts, Spain has managed to raise its educational system to an average level, while the educational systems of Greece and Portugal were far below the EU average both in terms of financing and performance even before the crisis.

In the new cohesion countries, apart from Cyprus and Malta, only Poland and Slovenia managed to protect their educational systems from the effects of the crisis, while Estonia was able to offset the budgetary cutbacks by utilising EU subsidies.

The European Commission regularly compares the performance of Member States' innovation systems. In the most recent, new (in name as well) "Innovation Union Scoreboard 2010", a composite indicator was created based

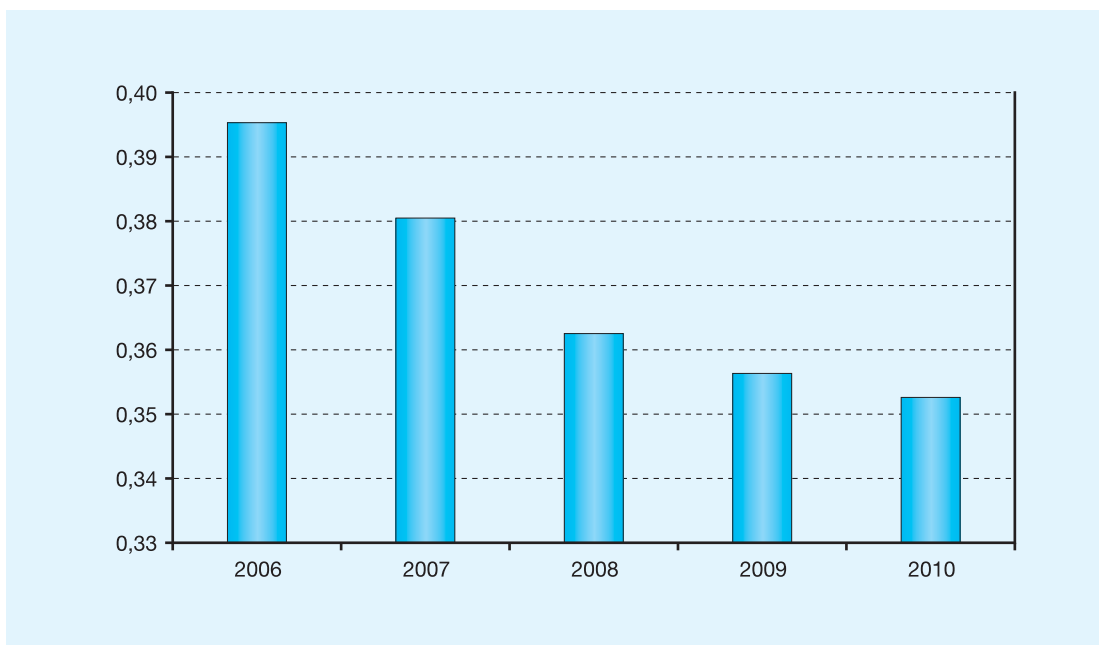
on 24 indicators (European Commission, 2011b). Member States were placed into four country groups: innovation leaders (Sweden, Denmark, Finland, Germany), innovation followers (United Kingdom, Belgium, Austria, Netherlands, Ireland, Luxembourg, France, Cyprus, Slovenia and Estonia), moderate innovators (Portugal, Italy, the Czech Republic, Spain, Greece, Malta, Hungary, Poland, Slovakia) and modest innovators (Romania, Lithuania, Bulgaria, Latvia).

The relative spread of Member States' innovation performance has been reduced between 2006 and 2010, thereby confirming sigma-convergence, but the rate of convergence seems to be slowing down (see Figure 7).

Reviewing long-term sources of growth such as investments, the development of human capital through the education system or the innovation system, all indicate that the halt in the convergence of cohesion countries is not a temporary phenomenon, but a more perma-

Figure 7

RELATIVE SPREAD IN INNOVATION PERFORMANCE AMONG EU MEMBER STATES, 2006–2010



Source: European Commission (2011b) p. 73

ment deceleration. Our finding is also supported by medium and long-term forecasts prepared with econometric tools.

GROWTH OUTLOOKS IN EU MEMBER STATES

The Commission of the European Union prepares long-term projections in order to monitor the anticipated economic effects of ageing. They use a production function relying on the neoclassical growth model in which, in addition to the growth contributions of capital and labour, other productivity-enhancing capabilities appear in the full scale of factor productivity. The 2009 “Ageing Report” (European Commission, 2009b) revealed that as a result of the decline in population a considerable drop is expected in the potential growth rate of the EU 27 Member States after 2020, which is why increasing productivity will remain an important source of growth. Due to a higher rate of population decline, the deterioration of the growth rates in post-socialist Member States will also be higher. Using the same methodology and relying on more recent figures *Halmái* (2011) ascertains for the period 2011–2015 that the potential rate of growth will not return to its pre-crisis 2007 levels even in the EU 15 Member States (1.3 per cent instead of 1.9 per cent), and that in the EU 12 Member States the rate of growth will drop to half by 2015 (2.3 per cent instead of 4.6 per cent). He also illustrates that within new cohesion countries, Hungary belongs to the most vulnerable group comprised of the Baltic States, Bulgaria and Romania.

Darvas (2011) examined the effects of the economic crisis on medium-term growth outlooks in the ex-communist, i.e. Eastern and Central European and countries in the Caucasus and Central Asia. The study examines a different set of countries and applies a

different methodology than those previously cited. The author filtered out the most important determining factors of growth from the period preceding the crisis (2000–2007) and a period including the crisis (2000–2010) using regression analysis and created an optimistic and pessimistic scenario based on the model thus generated. Based on this, the actual rate of growth in Central and Eastern European countries will remain well below the pre-crisis rates of growth in the 2010–2015 period. Going a step further, the growth outlooks for the medium-term do not even reach the potential rate of growth in the 2000–2005 period.

The 2012 Ageing Report was published at the end of 2011 (European Commission, 2011c), which re-evaluated the potential growth rates of the EU and the Member States using a production function based methodology as did the previous reports. In *Table 4*, we attempt to compare the forecasts of the two reports. This is only possible for a 50-year period, because both reports contain an average and the average for 2012 makes a –0.2 per cent adjustment necessary for the whole of the EU. Within the 50 year period, the next two decades are more interesting as it can be assumed that we will have more success in estimating trends for the period that is closer to the present. The present report provides decade averages, annual data for the two turns-of-the-decade; therefore, the partial data of the two reports cannot be directly compared. The 2009 forecast already calculated with decreasing potential growth rates as of 2010 in almost every country for the next two decades; therefore the figures for 2020 and 2030 should be lower than the average of the preceding decade. That is why it is particularly distressing that the new forecasts are much lower even in the decade-long averages than the later figures of older forecasts (e.g.: the 1.5 per cent of the EU average for the 2010–2020 period is much lower than the 2.1 per cent of the old 2020 forecast).

Table 4

POTENTIAL GDP GROWTH RATE IN EU MEMBER STATES BASED ON THE 2009 AND 2012 AGEING REPORTS

	2010–2060 (2012 forecast)	Adjustment of 2012 forecast compared to 2009 forecast	Average between 2010–2020 (2012 forecast)	2020 (2009 forecast)	Average between 2020–2030 (2012 forecast)	2030 (2009 forecast)
EU-27	1.4	-0.2	1.5	2.1	1.6	1.7
Belgium	1.6	-0.2	1.5	1.9	1.5	1.6
Bulgaria	1.3	-0.3	1.9	2.4	1.3	1.7
Czech Republic	1.5	0.0	2.0	2.5	1.7	1.4
Denmark	1.4	-0.3	1.0	1.6	1.5	1.5
Germany	0.8	-0.4	1.2	1.5	0.7	1.3
Estonia	1.5	-0.3	1.4	2.6	2.2	2.2
Irelandg	2.1	-0.2	1.2	2.9	3.2	2.3
Greece	1.0	-0.6	0.2	2.9	1.2	1.3
Spain	1.6	-0.3	1.3	3.4	2.6	1.8
France	1.7	-0.2	1.7	1.9	1.8	1.7
Italy	1.2	-0.2	0.8	1.9	1.4	1.4
Cyprus	1.8	-0.9	1.6	3.9	2.0	2.9
Latvia	1.1	-0.3	0.8	2.1	2.3	1.8
Lithuania	1.3	-0.2	1.1	2.5	1.8	1.5
Luxembourg	1.9	-0.6	2.6	2.7	1.8	2.1
Hungary	1.2	-0.5	0.8	2.4	1.8	2.1
Malta	1.4	-0.2	1.8	2.7	1.9	1.7
Netherlands	1.3	-0.2	1.4	1.5	1.1	1.2
Austria	1.4	-0.2	1.6	1.9	1.3	1.5
Poland	1.5	0.0	3.1	2.5	1.7	2.0
Portugalia	1.2	-0.6	0.4	2.1	1.9	2.5
Romania	1.1	-0.7	1.7	2.9	1.3	1.6
Slovenia	1.3	-0.1	1.8	2.6	1.5	0.8
Slovakia	1.6	-0.1	3.1	3.4	2.3	2.0
Finland	1.5	-0.1	1.7	1.7	1.4	1.5
Sweden	1.8	-0.1	1.9	1.9	1.8	1.7
United Kingdom	1.9	-0.2	1.8	2.0	1.9	2.1

Note: The forecasts for Ireland, Greece and Portugal did not include the effects of adjustment programmes required in exchange for the EU/IMF support.

Source: Author's own editing based on European Commission (2009b) p. 264 and European Commission (2011c) pp. 31, 131

The differences between the various countries cannot be considered negligible when it comes to the size of the adjustments in the forecasts. It is completely logical that with regard to the 2010–2020 period the data of the countries affected most severely by the crisis

needed the greatest adjustments. But the fact that the report shows potential growth rates exceeding two per cent are predicted only for Poland and Slovakia is not a confidence inspiring sign of real convergence. At the same time, for example Sweden, the United Kingdom, and

France may only expect growth rates of 1.9, 1.8, and 1.7 per cent, respectively.

Demographic factors also play a role in longer-term negative adjustments, i.e. expected working age population sizes needed to be lowered, but the main reason was that the rate of growth of productivity is expected to decline. Hungary must face the fact that it is among the five Member States, both for the next decade as well as the fifty-year forecast, which needed the greatest adjustment in the 2012 report (in this regard sharing the fate of Greece, Cyprus and Portugal).

CONCLUSIONS

Having reviewed the impact of the crisis to date as well as the growth outlook for the future, it seems high time to formulate a few conclusions.

① Within European integration, the convergence models of old and new cohesion countries have common characteristics – namely modernisation built on bringing in foreign capital parallel to low levels of domestic savings and resulting external and/or internal indebtedness – that have made this region particularly vulnerable during the crisis. This is why it is justified that, in a manner representing a departure from the literature of this particular field, we also examine economic processes separately for cohesion and non-cohesion Member States. All the more so, as due to the scarce capital supply expected in the world economy, the modification of this modernisation model and the creation of a model increasingly built on domestic savings will become necessary.

② During the crisis, new Member States in trouble and Ireland have exhibited greater flexibility than the Mediterranean countries. This indicates that the adaptability of countries does not depend on GDP, but on social tolerance. The exploration and understanding of these

institutional factors is important in order to develop successful EU and Member State level economic policies.

③ The crisis has increased the differences between post-socialist new Member States. The short and long-term growth outlooks of three countries, Poland, Slovakia and the Czech Republic seem quite stable, though that of the latter still leaves something to be desired. Slovenia's position also appeared favourable until very recently; the strategic management of education, R&D and innovation here is the most obvious; however, recently they too have showed symptoms of the "Hungarian disease".⁹ Of the Baltic States, Romania and Bulgaria, Estonia has the most attractive outlooks, and it is Estonia that has implemented/is implementing the most conscious economic policy measures in order to establish/develop a knowledge-based economy. The crisis made it very clear that Hungary has fallen behind the Visegrád countries.

④ Convergence within the realm of integration may not come to a halt just for the short term as a result of the crisis because investments have declined to a greater extent in the cohesion countries, the convergence between systems of innovation has slowed down and the austerity measures impose a greater burden on their educational systems than on those of the non-cohesion old Member States. Long and medium-term econometric forecasts arrive at the same result.

⑤ In recent decades, the rate of convergence and the convergence between countries has played a central role in perceptions regarding the effectiveness and legitimacy of European integration. Failure to make the necessary adjustments at the conceptual level of European integration will put the legitimacy of integration into danger. The Union's *raison d'être* in the next decade will be tied to the fact that without this European countries would cease to be global economic players. If, however, the

speed of convergence remains a measure of the success of integration, the EU will doom itself. At the same time, efforts must be taken to maintain cohesion at the level of relevant policies, because a certain degree of disequilibrium leads to disintegration. Cohesion policy must remain an important tool to this end, a tool that reinforces a common European identity and a palpable manifestation of solidarity for the populations of cohesion countries that are already experiencing difficult times. Cohesion assistance should not be expected to be able to do anything more than dampen the effects of the unfavourable tendencies described above; it would be unrealistic to expect such assistance to bring about a reversal of these effects.

⑥ From the course of the crisis so far, it seems that the stringent community regulation of fiscal policies is necessary, but not enough to ensure a future for integration. We must accept that the real economic differences between the North Western central countries and the cohesion countries are so great that they can reproduce the disequilibriums, especially if the

economies in question are hit by another set of shocks. It is already questionable how the situation of Greece can be managed as to restore the country's competitiveness; to do so would require a return to the living standard of the 1990s (Antzoulatos, 2011). Although it is true that real economic adaptation cannot be avoided even by currency devaluation, presumably certain states will not be able to forego the time that can be won for adaptation this way. This is why establishing a protection mechanism that allows a country to exit the euro area without collapsing seems inevitable.

⑦ Whether the EU as a whole will be capable of structural changes that could reverse the decrease of economic potential forecasted in this study is still an open question. When formulating economic policies, however, in a cohesion Member State – in spite of all uncertainties – it should be treated as an absolute priority that in the narrow scope for action available⁹ human capital suffer as little damage as possible and cutbacks related to knowledge production be minimalised.

NOTES

¹ See Eurostat database

² See Eurostat database

³ Gardó – Martin (2010) present in detail how the crisis spreads to the real economy through the various financial intermediary systems.

⁴ See Eurostat database

⁵ See Eurostat database

⁶ See: Eurostat statistical database.

⁷ Kőrösi (2011) describes the relationship between the EU 2020 strategy and Member

State policies in increasing the potential of human capital.

⁸ Similarly to Hungarian society, Slovenian society has also failed to face its realistic opportunities since the regime change. In the summer of 2010 Slovenians rejected pension and labour market reforms in a referendum. Following the early elections in December, a new government was unable to form by the middle of January 2012. http://www.portfolio.hu/gazdasag/ujbol_bun-tetik_a_teketoriazo_szloveniat_a_pia-cok.161380.html

⁹ Kovács (2010) analyses the dilemmas of the role of the state with limited options for action.

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