



# Working Papers

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## Patterns and trends of public investment in the new Member States of the European Union

by Ángel Catalina Rubianes

## Abstract

Public expenditure is lower in new Member States (NMS) than in the EU-15 countries for a number of reasons. Lower expenditure in social protection in NMS is a key source of the difference. Nevertheless, despite restrictions on total expenditure, public investment is on average higher in NMS in terms of GDP. This higher investment can be linked to a significant extent to the support from European Cohesion Policy (ECP), which accounts in NMS for 55% of public expenditure in environmental protection and 10% in economic affairs and human capital. Following the economic crisis, public investment is under pressure and declining in some NMS, underlining the importance of continued efforts under EU Cohesion Policy.

**Key words:** public expenditure, public investment, new Member States, Cohesion Policy, economic crisis.

Disclaimer: This Working Paper has been written by Ángel Catalina Rubianes, Directorate-General for Regional Policy (DG REGIO) and is intended to increase awareness of the technical work being done by the staff of the Directorate-General, as well as by experts working in association with them, and to seek comments and suggestions for further analysis. The views expressed are the author's alone and do not necessarily correspond to those of the European Commission.



# Patterns and trends of public investment in the new Member States of the European Union

## 1. Introduction

Article 174 of the new Treaty of Lisbon empowers the European Union to promote its harmonious development through policies which strengthen economic, social and territorial cohesion, thus reducing disparities between the levels of development of the various regions.

Article 175 involves Member States in this role as well by asking them to conduct their economic policies in such a way to attain the objectives set out in Article 174.

Public spending is one of the main policy tools used to promote development and to tackle disparities across regions. Spending policies can be directed at specific regions or, on the contrary, through spatially-blind decisions which do not aim specifically at addressing regional disparities. Regardless of their specific policy objectives, virtually all public spending policies, whether spatially oriented or not, have a territorial and personal impact in terms of disparities. This paper is aimed at appraising the composition of public expenditure<sup>1</sup> and public investment<sup>2</sup> in NMS of the EU, with a particular focus on those areas related to regional development and the scope of EU Cohesion Policy.

The first part of this paper focuses on the differences in the total levels of public expenditure between Member States of the EU and the weight of public investment within this total public expenditure. It looks as well at the trends observed in the last decade and assesses to what extent public investment correlates with the 'catching-up' process in GDP per head.

The second part examines the composition of public expenditure in the EU. It highlights the main patterns of public expenditure and the trends observed in its composition over time. The contribution of EU Cohesion Policy to public expenditure in the different areas is also analysed.

Finally, the third part of the document aims to depict the impact of the economic crisis on public investment in NMS and the prospects over the medium and long term.

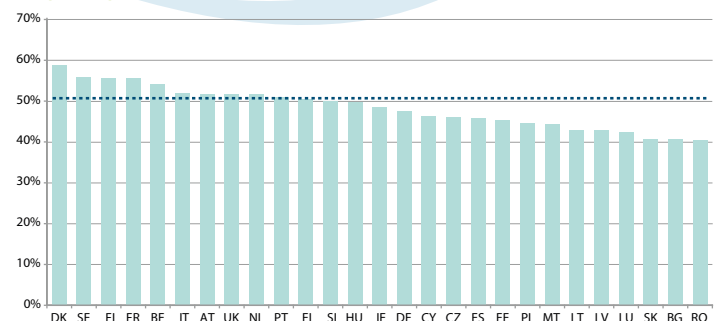
## 2. Public expenditure and public investment in the new Member States of the EU

### The size of the public sector is bigger in the EU-15 Member States...

The size of the public sector varies markedly across the different Member States of the EU. It means that the financial resources available to the public sector also differ substantially across the Union, including the allocation of non-market public goods and services. Public expenditure accounted on average for 46.8% of GDP in the EU in 2008, but with a divergence of almost 20 percentage points between countries (more than 53% in Sweden to less than 35% in the Slovak Republic). In 2009 public expenditure rose on average to over 50% of GDP as a result of the impact of the crisis on public finances. It is nevertheless expected that the fiscal consolidation plans will gradually bring public expenditure back to previous levels.

Figure 1 shows the different levels of public expenditure in Member States. It also compares the total public expenditure in NMS and EU-15 countries.

Figure 1 – Total public expenditure as a share of GDP (2009)



Source: Eurostat

<sup>1</sup> The notion of **public expenditure** in this paper comprises all the spending decisions of the General government (central and sub-central levels) excluding the public corporations.

<sup>2</sup> Public investment is the sum of Gross Fixed Capital Formation (P51) and Capital Transfers consolidated (D9\_CO). 'Consolidated' means that capital transfers between the different levels of government are removed in order to take just account of capital transfers to individuals and firms. The codes in brackets are provided according to the nomenclature used in the European System of Accounts (ESA95). Unless specified otherwise, capital expenditure and public investment will be used as synonyms throughout this paper.

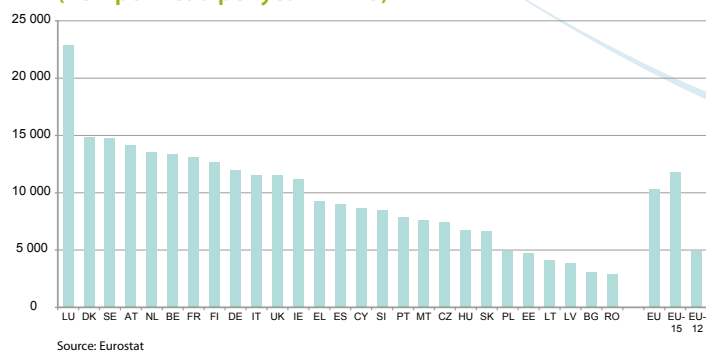
Public spending tends to be higher in countries with higher levels of GDP per head. The different traditions in the preferences of the society explain to some extent the differences in the levels of public expenditure. Public expenditure was on average about 7 percentage points higher in terms of GDP in the old EU-15 (51%) than in NMS (44%) in 2009. The gap has tended to soar in the last decade as a result of some reductions in total public expenditure as a share of GDP observed in most NMS over the period 1999-2008.

Not a single new Member State was above the EU average in 2009. Only Hungary was very close to the average but the interest payments to be paid every year as a result of the high public debt largely explain this 'exception'.

When expressed in absolute figures (taking into account differences in purchasing power standards across countries), public expenditure per head in NMS was on average about 42% compared to the old EU-15 countries over the last decade (see Figure 2). It mostly reflects the differences in terms of GDP per head rather than political decisions to devote more resources to the public sector. This is the reason why the positive trend toward convergence was reversed during the economic crisis in 2009. Higher levels of GDP per head result in increasing revenues for the public sector and, therefore, more ability for public spending to address the demands of citizens.

The gap in total public expenditure per head in Purchase Power Standards (PPS) between old EU-15 countries and NMS had been narrowing continuously over the last decade, at least until 2008. It evolved from 37% in 2000 to 47% in 2008 though declined to 43% in 2009. These figures just reflect the higher rates of economic growth in NMS until 2008 and the highest impact of the crisis in most NMS in 2009. In other words, economic growth is essential for maintaining public sector spending and is a key factor for convergence in the provision of public goods and services.

**Figure 2 – Total public expenditure 2000-2009 (EUR per head per year in PPS)**



**... but public investment as a share of GDP is higher in new Member States (and also the total investment in the economy)...**

Public investment has consistently been higher in NMS in terms of GDP, despite their lower levels of total public spending. This favourable gap has oscillated between 1.2 and 2.4 points of GDP.

In the period 2004-2008 the five countries to top the public investment list were NMS (the Czech Republic, Romania, Latvia, Estonia and Hungary) while the bottom five were from the EU-15

(Denmark, Germany, Finland and Belgium) with the exception of the Slovak Republic. In the first group, public investment was on average over 5% of the national GDP in all cases (more than 6% in Romania and 7% in the Czech Republic) and below 3.5% of GDP in the latter (even below 3% in Finland, Germany and Denmark). This divide reflects the differences also observed in the rates of total investment (public and private) in the economy. Over the same period, total investment was 3 points of GDP higher in NMS (23.3%) than in the EU-15 (20.4%). The public sector accounts for a higher share of the total investment in NMS (23.2% against 17.7%), explaining in part their higher rates of total investment.

There are few exceptions to the sharp divide between NMS and old EU-15 Member States in their relative levels of public investment. The Slovak Republic is the only NMS in which public investment is on average below 4% of GDP in the period 2004-2008. However, its rate of private investment was higher than the neighbouring countries (Poland, Austria, Hungary or the Czech Republic) over the same period, suggesting a more dynamic private sector, though far from the rates of the Baltic States, Romania and Bulgaria. This is probably one of the reasons why the public sector was not playing such a significant role in terms of investment. In addition, the endowment of capital stock in the Slovak Republic in terms of GDP (5.6 % of its GDP) is similar to, even slightly higher than, some mature economies such as France, Italy and Germany.

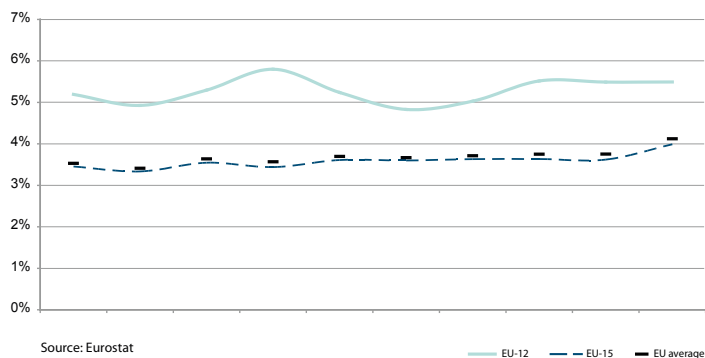
This divide also reveals that public investment (and probably more surprisingly private investment) in the EU tends to be smaller in terms of GDP in those countries with the highest levels of total public expenditure. The most likely reason is that countries with high levels of expenditure are rather mature economies with relatively high endowments of physical capital. Additional investments in physical capital provide fewer returns and may also entail a higher opportunity cost.

**... though it was decreasing over time in some of them**

When looking at the trends over the two reference periods taken, the picture is more mixed. Public investment decreased in eleven Member States. Five of them are NMS (Slovakia, Hungary, the Czech Republic, Malta and Slovenia). The sharpest decline in the EU occurred in Slovakia (-3.7) and Hungary (-1.5). Some reductions happened however in a context of very high initial levels of public investment, such as in the case of the Czech Republic (from 8% to 7%) which remains the country with the highest levels of public investment in terms of GDP in the EU even after this decline. However, it is important to point out that total investment (public and private) soared 3 points of GDP in Slovakia and 0.6 in Slovenia over the two periods. It reveals dynamic private sectors which play an increasing role as engines of the economy. Five out of the six countries in which public investment increased the most across the two reference periods are NMS (the United Kingdom is the only exception). Latvia, Bulgaria and Romania top the list of countries with increases higher than 2 percentage points of GDP. They are the three Member States in the EU scoring the highest increases in total investment in the economy (at least 6 points of GDP and even over 9 points in Bulgaria).

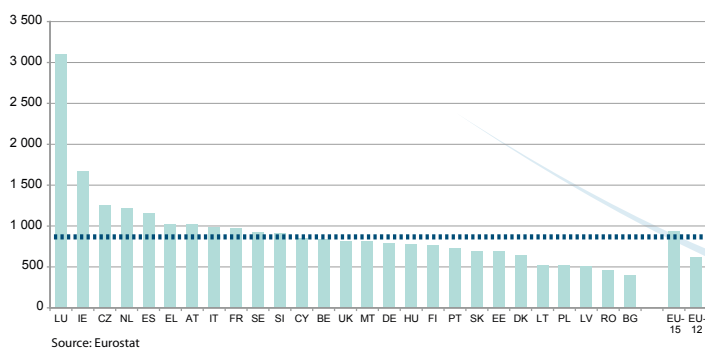
Figure 3 shows the trends in public investment in both groups of countries over the last decade. It reveals that public investment was slightly more volatile in the NMS with more ups and downs than in the EU-15 countries. The highest gap came in 2002. Similar gaps and trends are observed for the total investment, showing a very similar pace with a few exceptions such as the cited cases of Slovakia and, to a lesser extent, Slovenia.

**Figure 3 – Public investment in the EU as a share of GDP (1999-2008)**



In absolute terms public investment per head in PPS was about 75% of the average in the EU-15 countries. The difference is much lower than in public expenditure. Public spending policies are more focused on investment in NMS. Moreover, the gap between both groups of countries has been rapidly narrowing over recent years as the share was just 60% in 2004. The Czech Republic stands out as it ranks third in the EU in public investment per head in PPS over the period 2000-2009. Slovenia was over the EU average too.

**Figure 4 – Total public investment 2000-2009 (EUR per head per year in PPS)**



**In some NMS public investment witnessed significant increases in the second half of the decade...**

Figure 5 shows the combined patterns of public expenditure and public investment in the EU over the period 2000-2009. Average data for the periods 2000-2004 and 2005-2009 are compared.

Total public expenditure was on the rise in the whole EU with no exceptions. There is a high correlation between rates of economic growth and increases in total public expenditure (expressed in constant EUR per head). This is the reason why some NMS are those which witnessed the highest rises in public expenditure. The rise was more than 40% in some of them and over 25% in most of them when comparing both periods.

Public investment rose markedly more than public expenditure in Poland, Bulgaria and Latvia. They record the highest increases in the EU. In contrast, public investment ebbed in seven Member States, including Slovenia, Malta and Hungary. The two latter faced some budgetary restrictions due to their relatively high levels of public debt. They are exceptions among NMS.

In the EU-15 the most typical case is a relatively modest increase in total public expenditure and public investment. This is due to the comparatively lower rates of economic growth. The main exceptions are the United Kingdom, Ireland and Spain.

**Figure 5 – Changes in public investment compared to changes in total public expenditure 2000-2004 and 2005-2009 (in EUR, 2004 prices)**



**...and it seems it was a good policy choice for 'catching-up' with the EU GDP per head average**

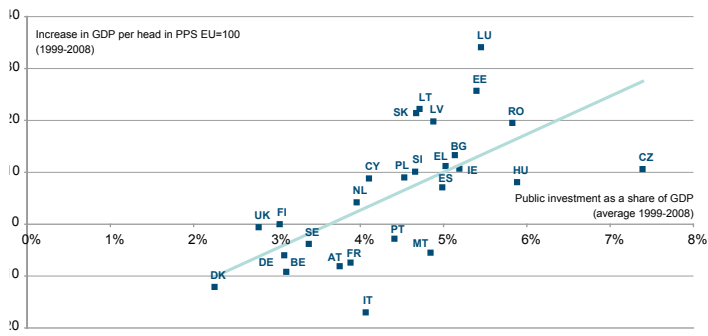
Figure 5 shows a parallel trend in levels of public investment in terms of GDP in the last decade (1999-2008) and the trends in their levels of GDP per head expressed in PPS in the same reference period. The five Member States which enjoyed the best levels of 'catching-up' (Luxembourg, the three Baltic States and Ireland) present levels of public investment significantly higher than the EU average. The same finding applies to the total levels of investment except in the case of Luxembourg.

By contrast, just one of the ten countries with the lowest levels of public investment improved its score in terms of GDP per head in PPS compared to the EU average. This is the case of the United Kingdom, where public investment was on the rise over time. The other nine countries, which are from the EU-15, scored negative levels compared to the EU average. In other words, there seems to be a significant correlation at national level between the levels of public investment and the increases in GDP per head over time.

Nonetheless, the reader should be cautious in establishing a direct correlation between both variables because GDP per head in PPS is influenced by a high number of factors of very different nature. In any event, it is unquestionable that investment is a significant component of the aggregated demand and that its total level was on average about 3 points of GDP higher in NMS than in the other countries of the EU.



**Figure 6 – Changes in GDP per head compared to levels of public investment 1999-2008**



Source: Eurostat

### 3. The composition of public expenditure and public investment in the new Member States of the EU

The provision of non-market public goods and services is one of the traditional functions of the public sector. Public goods and services enhance development opportunities of people living in a territory by improving the endowment of physical and human capital.

EU Cohesion Policy<sup>3</sup> plays a prominent role in supporting public spending in areas critical for economic development such as transport, communication, environment and education. These categories together account for a significant part of the eligible areas under EU Cohesion Policy. The total amount captured is about EUR 262 billion for the period 2007-2013 which represents about 75% of the policy.

Social protection is far and away the main area in terms of public spending. Four out of ten euros are spent in this area, despite significant differences between Member States, as outlined in the previous section. Transport, energy, environment and education account in total for about 21% of the total public expenditure in the EU.

#### New Member States stand out in terms of public expenditure in physical infrastructure...

The Division 'economic affairs' includes a rather heterogeneous array of domains which include, inter alia, agriculture and forestry, fuel and energy, transport, communication and the related research and development in these areas.

Economic affairs accounts for more than 33% of the total Gross Fixed Capital Formation (GFCF) in the EU. It is therefore a 'capital intensive' field. Figure 7 shows that NMS stand out in public expenditure in this category. It accounts for almost 7% of the national GDP in the Czech Republic and Romania and largely exceeds 6% in Hungary. In other words, NMS devote higher levels of public spending to these areas while their levels of public spending are on average lower than in the EU-15. While the investments in this area account on average for just 4.4% of GDP in the old EU-15, this proportion amounted to 5.8% of GDP in NMS in 2007.

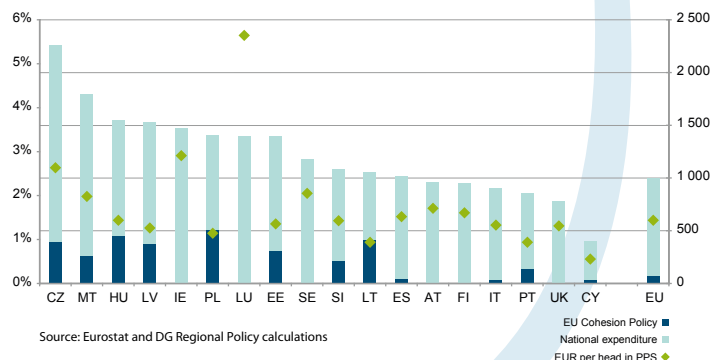
<sup>3</sup> The allocations of the EU Cohesion Policy to each country were obtained from the total commitments in the period 2007-2013. The allocations per year are the result of dividing the total commitments per MS by seven.

In all Member States, the main group under this category is expenditure in transport. In the countries for which expenditure data on transport are available<sup>4</sup>, it varies between 56% and 67% of the total for 'economic affairs'. This proportion is less than 50% in most of the old EU-15 countries for which data are available<sup>5</sup>. Therefore, NMS tend to not only present higher levels of public investment (in terms of GDP) in those areas which are more 'physical capital intensive' but also give a prominent place to transport related investments compared to the other EU Member States.

EU Cohesion Policy<sup>6</sup> explains to a very significant extent the favourable gap of the NMS in the areas of transport, energy and communication<sup>7</sup> (see Figure 7). The Structural Funds and the Cohesion Fund account for more than 25% of the total public expenditure in this area for NMS such as Poland, Hungary and Lithuania and, in any case, for above 15% in all the others except in Malta (15%) and Cyprus (10%). In general, most NMS rank much lower when ECP allocations are not taken into account. As a result, this policy is crucial in most of the NMS for keeping the necessary public investment to increase their endowments of physical capital.

Public expenditure per head in PPS in the NMS for which data are available was similar to the expenditure carried out in EU-15 countries (about EUR 600 per head).

**Figure 7 – Total public expenditure in transport, communication and energy as a share of GDP and in EUR per head in PPS (2008)**



Source: Eurostat and DG Regional Policy calculations

#### ... and devote similar sums as those devoted by EU-15 countries to environmental protection...

Environmental protection has gradually come to the forefront of the policy agenda in recent years. Environmental challenges such as climate change and energy efficiency are now among the top priorities for Europe in the coming decades. While not perfect, COFOG Division 5 (environmental protection) is an indicator of the public investment effort in ensuring sustainable development<sup>8</sup>. It mostly includes all the direct investments aimed at protecting the environment and excludes those with an indirect impact which are recorded under other categories of expenditure (e.g. energy efficiency investment).

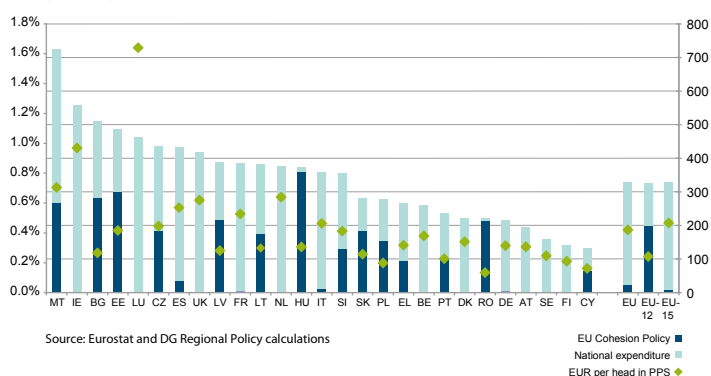
<sup>4</sup> Bulgaria, the Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta and Poland.  
<sup>5</sup> Germany, Greece, Spain, Italy, Austria, Portugal, Finland, Sweden and the United Kingdom.  
<sup>6</sup> The codes taken into account for the comparison are the following: 10-15 (Information Society), 16-32 (Transport), 33-43 (Energy) according to the spending categories of Annex IV of the Council Regulation (EC) No 1083/2006 of 11 July 2006 laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund.  
<sup>7</sup> There are no complete data for some MS. This is the reason why they are not included in Figure 7.  
<sup>8</sup> This Division is based upon the Classification of Environmental Protection Activities (CEPA) as elaborated in the European System of Collection of Economic Information of the Environment (SERIEE) of Eurostat.

European governments devote on average about 0.78% of GDP to the items of expenditure recorded under this category. There are not significant differences between NMS (0.72%) and the old EU-15 (0.79%). Malta and Bulgaria are however at the top of the list. Only these Member States spend more than 1% of their GDP in direct investments to preserve the environment.

Yet, when matching the Structural Funds<sup>9</sup> and the Cohesion Fund with the total investment, the main finding is that the environmental policy in NMS is overwhelmingly led by EU Cohesion Policy. It accounts on average for 75% of the total direct investments in this area in NMS (2.9% in the old EU-15) and is above 40% in all of them<sup>10</sup>. Consequently, EU Cohesion Policy is critical for sustainable development policies in NMS and also in some EU-15 countries such as Portugal or Greece.

In 2008, expenditure per head in PPS in NMS was about 55% of the EU average, as against 49% in 2002. This gradual narrowing of the gap stagnated in 2009 as a result of the impact of the economic crisis.

**Figure 8 – Total public expenditure in environmental protection as a share of GDP and EUR per head in PPS (2008)**



### ...and also to upgrade human capital

Human capital is the other factor of production behind GDP performance. It refers to the skills and knowledge that individuals accumulate over time. While statistics on capital expenditure do not capture public spending aimed at upgrading human capital, this category is included in this paper in order to secure a comprehensive picture of public policies aimed at enhancing development opportunities of people and the competitiveness of the economy over the medium and long term. Endowments of human capital increasingly explain gains in productivity. Given that the total number of hours worked is rather stable in the current social legal framework, a significant part of future increases in GDP will be mostly obtained by enhancing labour productivity.

Labour productivity is increased by improving the qualification of the labour force and adapting it to the needs of the economy. Total national expenditure in education, albeit not perfect, is a good indicator of public expenditure in upgrading human capital. Moreover, education is a very strong channel for social mobility and, therefore, social cohesion and regional convergence. By

investing in education, public authorities may pursue efficiency (through best use of factors of production) and equity (this is what is called 'transfers in kind') objectives simultaneously.

Expenditures recorded under COFOG Division 9 ('Education') include government outlays on services provided to individual pupils and students and expenditure on education services provided on a collective basis.

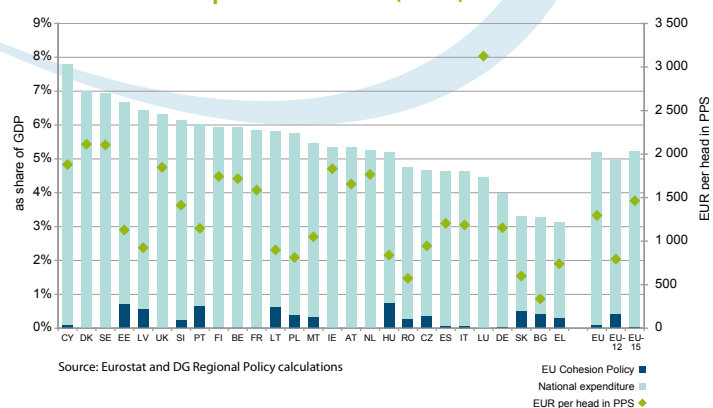
From the outset it was underlined that total public expenditure in most of the EU-15 Member States was significantly higher than in some NMS in terms of GDP. This gap was even over 20 percentage points in some cases. When assessing public expenditure in physical capital, we found that it does not account for these differences, and may even show the opposite.

The picture of public expenditure in human capital is slightly different. While there seems to be some positive correlation with levels of total public expenditure, this correlation is not high. Many NMS are indeed scoring fairly well. Seven of them are among the first half with higher levels of expenditure in this area. On average, the total public expenditure in education is the same in the old EU-15 and NMS (5.1% of GDP).

EU Cohesion Policy explains a much lower proportion of the differences across Member States in the area of human capital<sup>11</sup>. The main reason is that this is an area which entails a relatively high public expenditure compared to the others and, especially, that only a small part is eligible for the co-financing by the Structural Funds. Primary and secondary education expenses, which are the main groups under this Division, are barely eligible to be funded by the Structural Funds. Nevertheless, Structural Fund interventions in the area of human capital represent more than 10% of the total expenditure in five Member States and also in Greece and Portugal.

Relative to population, expenditure on education in NMS in PPS terms increased slightly relative to the EU average between 2002 and 2008 (from 56% to 58%).

**Figure 9 – Public expenditure in education as a share of GDP and EUR per head in PPS (2008)**



<sup>9</sup> Codes 44-54 according to the spending categories 2007-2013 of Annex IV of the Council Regulation (EC) No 1083/2006 are compared to the total expenditure recorded under COFOG Division 5.

<sup>10</sup> In the cases of Hungary and Romania, the total expenditure recorded under this COFOG Division is lower than the total 2007-2013 commitment of the Structural Funds and the Cohesion Fund in the relevant codes divided by seven.

<sup>11</sup> Codes 65-79 according to the spending categories of Annex IV of the Council Regulation (EC) No 1083/2006.

## But public expenditure in social protection in new Member States is much lower and explains almost completely the differences in total public expenditure

Social protection is by far the major COFOG Division in terms of public expenditure (18% of GDP, about 40% of the total public expenditure in the EU). Expenditure under this chapter relates mostly to services and transfers provided to individual persons and households. It does not include health care which is recorded under COFOG Division 7. It means that medical goods and services provided to persons who receive cash benefits and benefits in kind related to health are not recorded under social protection. This category includes for instance sickness and disability, old age (e.g. pensions), survivors (e.g. widows or children pensions), family and child benefit, unemployment benefits and housing aids.

Social protection is undoubtedly the area which presents the highest correlation with total expenditure. The top three Member States in terms of social protection (as a percentage of GDP) are those with higher levels of total public expenditure. In addition, there is also a clear divide between the old EU-15 Member States (18.3% of GDP on average) and NMS (13.6% of GDP on average) in this Division. Indeed, the first nine countries are old EU-15. Hungary, which is the fourth Member State in total expenditure ranks just tenth in public expenditure on social protection. On the other hand, the bottom eight countries are NMS with the exception of Ireland which is, by the way, one of the Member States with the lowest levels of public expenditure in terms of GDP.

Expenditure per inhabitant in PPS in NMS accounted for about 40% when compared to the average of the EU-15. The gap barely narrowed over the past decade.

**Figure 10 – Total public expenditure in social protection as a share of GDP and EUR per head in PPS (2008)**



In summary, the significant differences between Member States in the size of their public sectors are almost completely due to their different levels of expenditure in social protection. However, they do not have any influence in determining investments in physical capital (e.g. transport or communication), human capital and those aimed at upgrading the quality of the environment.

## New Member States have increased public expenditure in all areas in absolute terms while lowering expenditure in social protection in terms of GDP

In PPS terms, public expenditure grew in all the analysed categories of expenditure in the EU-12 (see Table 1). It outstripped the EU-15 in all of them. This happened even though public expenditure in some areas such as social protection or education declined as a share of GDP. Once again, it conveys the message that economic growth is extremely important to meet the public's requirements even in times of budgetary restrictions.

Economic affairs (mostly transport) and environmental protection are by far and away the areas which witnessed the highest increases of public expenditure in NMS. The latter grew over 33% in real terms while the former increased by about 23% over the period 2002-2008. Both accounted for a higher share of GDP in 2008 compared to 2002, especially economic affairs.

The main difference compared to the EU-15 is not only that the increase of public spending in absolute terms was higher in all areas, but also that there was a significant decline in expenditure in social protection in NMS in terms of GDP while it remained rather stable in the EU-15. As a result, the gap widened even further and this almost fully explains the differences in public spending as a share of GDP between both groups of countries.

**Table 1 - Public expenditure by policy area**

	As share of GDP		Per head in PPS	
	2002	2008	2002	2008
Economic affairs				
EU-15	3.8%	4.1%	945	1 041
EU-12	5.2%	5.6%	559	689
Environmental protection				
EU-15	0.6%	0.7%	174	189
EU-12	0.7%	0.7%	66	88
Education				
EU-15	5.3%	5.2%	1 282	1 314
EU-12	5.4%	5.3%	579	643
Social protection				
EU-15	18.6%	18.5%	4 566	4 759
EU-12	15.3%	14.0%	1 457	1 534

Source: Eurostat and DG Regional Policy calculations

## 4. The effects of the economic crisis on public investment

In autumn 2008 the collapse of the banking system in the United States triggered the worst economic global crisis since the end of the Second World War. Most European economies entered recession and unemployment started to rise. All the national economies underwent negative rates of economic growth in 2009 except Poland. On average, GDP declined 4.2 percentage points in the EU. While the average impact was similar in NMS and the EU-15, rates of recession hit double figures in the Baltic States (-18% in Latvia, -15% in Lithuania and -14% in Estonia).



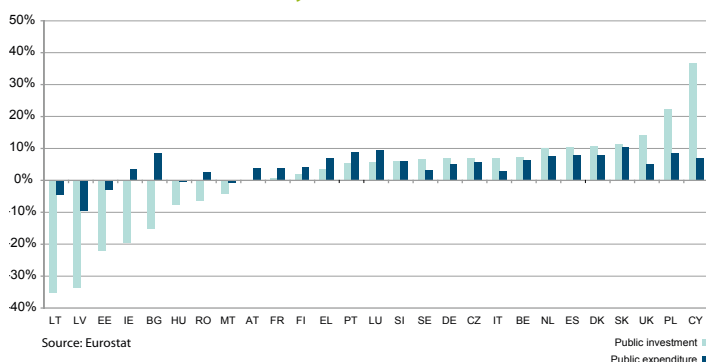
The average unemployment rate of the European Union jumped from 7.6% at the end of 2008 to almost 10% at the end of 2009 (both in NMS and the EU-15) with very significant peaks in some Member States (e.g. close to 20% in Spain and Latvia).

### Public investment has been decreasing in most NMS during the economic crisis...

Public finances were not immune to the effects of the crisis. They deteriorated dramatically. Public deficits rose to -7% of the average EU-27 GDP in 2009 and public debt leapt from 61.6% in 2008 to 73.6% in 2009. Moreover, this deterioration is likely to further deepen in many countries in 2009 (-6%) and 2010 (-7.3%) with very significant differences between Member States. These high levels of public deficits will result in an increase of the public debt ratios. In the EU, this could be close to 80% in 2010.

Figure 11 shows the first impact on public expenditure and public investment<sup>12</sup> of the effects of the economic downturn. The results are significantly different in NMS and the EU-15 countries. The latter were in general implementing counter-cyclical policies which consisted of expanding both public spending and public investment during the worst months of recession. Moreover, public investment in the EU-15 was generally increasing faster than public expenditure. Many national governments were focussing on public investment measures as part of national plans for recovery. In the EU-15, public investment fell only in Ireland compared to 2008. By contrast, public investment declined in seven NMS (more than 30% in Latvia and Lithuania and more than 20% in Estonia) and shows on average a downward trend (-2.9%). In other words, most NMS were implementing pro-cyclical economic policies despite their lower levels of public debt. In some cases this was due to the huge impact of the economic recession and the dramatic decline in revenues of the central government. There are however some exceptions among NMS. For instance, public investment grew significantly in Poland and Cyprus in 2009. They are the two NMS less affected by the economic recession in 2009. It shows once again the importance of economic growth for the ability of national governments to maintain public investment which is very sensitive to the ups and downs of the economic cycle.

**Figure 11 – Changes of public expenditure and public investment in 2009 compared to 2008 (in %, national currency)**



### ...even in some countries with relatively low rates of public investment

Public investment was on the rise in most EU-15 countries, but declined on average in NMS. If these trends are maintained, the economic crisis could have narrowed the favourable gap of NMS in terms of public investment as a share of GDP. This is an issue of concern in some NMS which were already presenting relatively low rates of public investment.

Table 2 classifies NMS according to their initial level of public investment in 2008 and the trends observed in 2009. It shows that there are very different cases within this group and also that differences in terms of public investment are likely to widen across NMS. The most concerning cases are probably Hungary and Malta, in which public investment was decreasing in 2009 while their rates were already well below the EU-12 average and even the total EU average. For instance, public investment in the Czech Republic was more than double that of Malta in 2008. Malta and Hungary are the two NMS with the highest debt-to-GDP ratio. There is a challenge in striking a balance between fiscal consolidation and boosting investment in these countries.

**Table 2 - Public expenditure and public investment in new Member States in 2009**

	Increasing total public investment in 2009	Decreasing public investment in 2009
Rate of public investment in 2008 higher than the EU-12 average	CZ, PL	BG, EE, LV, RO, LT
Rate of public investment in 2008 lower than the EU-12 average	CY, SI, SK	HU, MT

### The sharp deterioration of public finances may lead to low rates of public investment in some NMS

Figure 12 aims to provide a picture of the fiscal space of governments of NMS in relation to the average levels of public investment over the period 2000-2009. The sharp increases in public deficits and public debt which have resulted from the crisis put enormous pressure on public finances in most Member States. This may compromise their ability to provide, inter alia, resources for public investment without jeopardising the sustainability of their financial position or the stability of the economy. This is an issue of concern in those countries with relatively high levels of public debt in which rates of public investment are relatively modest.

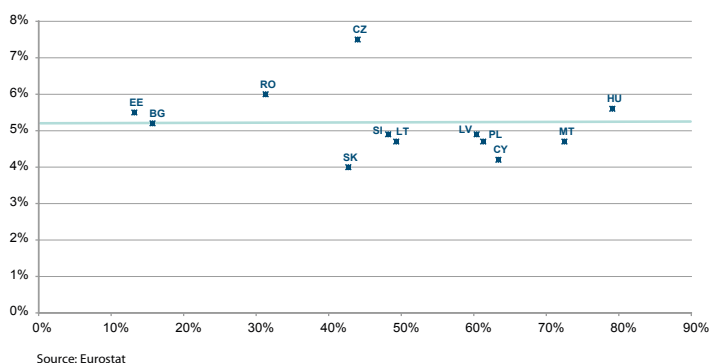
The figure shows that there is a significant negative correlation between average rates of public investment over the last decade and the public debt-to-GDP ratio. That is, public investment tended to be lower in terms of GDP in those MS with high levels of public debt. The only exception is Hungary, though its rate of public investment was already much higher than the EU-12 average at the end of the decade. Public debt is therefore a significant explanatory factor of public investment rates.

An issue of concern is that Member States with lower levels of public investment over the last decade are those more in need of fiscal consolidation. In the event that the necessary adjustment of public finances is made at the expense of public investment,

<sup>12</sup> In this case, public investment is limited to Gross Fixed Capital Formation. Quarterly data on capital transfers are not consolidated.

it could even fall below the current levels and compromise competitiveness and future gains in productivity over the medium and long term. Particular attention should be paid too to countries like Latvia where public debt increased dramatically from about 10% in 2006 to more than 50% in 2010.

**Figure 12 – Public investment (2000-2009) and forecasted public debt as a share of GDP (2011)**



In summary, public investment is declining (in nominal terms) in most NMS as a result of the impact of the crisis on public finances. This scenario is likely to narrow the favourable gap of NMS in terms of public investment which was observed in previous sections of this report. While some reductions happen in countries with relatively high levels of public investment, there are some cases of concern, due not only to their relatively low initial rates of public investment but also to the pressure that public debt may exert on their budgetary decisions in the coming years.

## 5. Conclusions

- The new Member States of the European Union have been confronted in the last decade by some restrictions in public financial resources compared to the other countries of the European Union. Public expenditure decreased by about 1.5 percentage points of GDP in NMS over the period 1999-2008 while it remained on average stable in the EU-15 (around 47% of GDP). However, their higher rates of economic growth resulted in a higher availability of financial resources when expressed in absolute terms (EUR per head). Public expenditure in NMS accounted for about 37% compared to the EU-15 in 2000 but was already 47% in 2008. It declined however to 43% in 2009. In terms of GDP, total public expenditure in the NMS was about 5 percentage points lower than in the old EU-15 countries in the period 2004-2008. Yet, public investment accounted for 5% of GDP on average and was significantly higher than in EU-15 countries in which this rate was around 3.5%.
- NMS stand out in public expenditure in physical infrastructure compared to the EU-15 countries, while the expenditure for environmental protection and human capital is virtually the same in relative terms in both groups of countries. The trends of public expenditure observed in the last five years confirm that NMS are still favouring public expenditure in physical infrastructure.
- The EU Cohesion Policy supports a very significant part of the investments made in NMS in these fields. In the area of environmental protection, it accounts on average for about 55% of the total investments. In the areas of economic affairs and human capital it accounts for about 10% of the total public expenditure. Public expenditure in social protection explains almost completely the differences in the levels of total public expenditure between both groups of countries.
- Public investment declined in most NMS in 2009 as a result of the effects of the economic crisis on public finances. An issue of concern is that Member States with lower levels of public investment over the last decade are those with the highest debt-to-GDP ratios and therefore more compelled by the necessary fiscal consolidation. In the event that the necessary adjustment of public finances is made at the expense of public investment, it could even fall below the current levels and compromise competitiveness and future gains of productivity over the medium and long term.

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