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**IMPACT OF THE ECONOMIC
SLOWDOWN ON LOCAL GOVERNMENT
INVESTMENTS, DEBT
AND PRODUCTIVITY
IN THE EU COUNTRIES**

Abstract

The recent economic crisis had a significant influence on the activities of public sector entities at both central and local levels. This research paper shows an analysis of changes in investments, debt and productivity of local governments in European Union countries in the years 2003-2012. During the crisis period, local governments performed a visibly positive role from the perspective of the counter-cyclical policy of the public sector. In the years 2009-2010, the share of local government investments in total investments (GFCF) grew to 10%.

The active investment policies of local governments resulted in their higher indebtedness. Average annual net borrowing amounted to 0.5% of GDP per country during the crisis period. Although the borrowing was for purely investment activities, it was not noticeably correlated with an increase of productivity. In addition, after productivity growth in the 2008-2009 period, the subsequent years experienced an overall decrease of local government sector productivity. Further analysis showed a relative deterioration of the financial position of local governments regardless of their productivity profile. Taking into consideration the lasting fiscal strains, further stimulation of the economy with debt instruments appears an unsustainable policy for local governments, both in the context of future debt repayments, as well as the failure to lead to increased productivity.

Keywords: *local government productivity, local government investments, local government debt.*

JEL classification: *H11, H72, H74, O43, R50.*

1. Theoretical background

The economic slowdown in the European Union (EU) countries, which started in 2008, commenced an important debate about selecting instruments for stimulating economies as well as the scope of their usage in order to restore economic growth. This debate comprises both a provision of public goods as counter-cyclical instruments, as well as the use of specific discretionary macroeconomic policies by governments. An important problem in this field is the stimulation of the economy with various forms of public spending. These issues, with particular focus on the role of sub-central governments, are extensively discussed i.a. in H. Blöchliger et al. (2010). The analysis of public spending's influ-

ence on output in the framework of the government spending multiplier is presented in A. Kraay (2012). The impact of fiscal policy tightening on growth in the short and long-term perspective is analyzed by R. Barrell, D. Holland and I. Hurst (2012).

The discussion about suitable policies raises also the question of the growing role of investment and infrastructure banks as well as a new regulatory framework to correctly assess the changing design of the state and growing intertemporal government commitments, as described in D. Helm (2011). The debate devoted to the design of central and local government sector finances is vivid in many European countries and is carried out by local research centers. For Poland it is widely described in T. Famulska and J. Nowakowski (2011).

Several pieces of research deliver arguments for the high effectiveness of local government spending and that fiscal decentralization increases GDP per capita, productivity, human capital as well as the share of public funds directed to capital spending. Numerous analyses are conducted, especially by OECD Departments. The results as well as a broad review of other research are presented in H. Blöchliger (2013), H. Blöchliger and B. Égert (2013) and K. Fredriksen (2013). However, there is also evidence of politically driven transfers to local governments, targeted at securing support for elections, which causes inefficiencies, see Veiga L. and F. Veiga (2013). Yet, in many countries financial crises also caused limitations in financial resources transferred to local governments and a deterioration of their credit-worthiness. That influenced in a negative way the financial standing of local governments and their ability to provide public services as described in C. Vammalle and C. Hulbert (2013). Such a situation raises concerns about the rationality and sustainability of the above stimulation policies and urges to look for potential exit strategies when these policies become less effective over time. This relates to both central and local government activities.

One of the warning indicators that conducted policies may, in a longer horizon, be on balance a burden for economic growth, this is a situation in which they result in increasing indebtedness associated with lower productivity. This effect may be additionally boosted since the analyses show that the growth of the size of the state is associated with inefficiencies in the provision of public goods as described in T. Bernauer and V. Koubi (2013). However, the distinctly opposite model of fiscal austerity also fails to solve the problem as the countercyclical role of the state in stabilizing the economy is important and the deleveraging process may be harmful. For municipalities this topic is debated in J. Peck (2014).

The debate on how to implement fiscal consolidation and what choice of instruments should favor long-term growth is active. As described in D. Sutherland

et al. (2012) the focus should be on finding policies with low multipliers in the short-term (e.g. related to pension systems) and undertaking reforms of budgetary institutions. Macroeconomic risks associated with deleveraging, including their impact on consumption, are modelled in G. Eggertsson and P. Krugman (2012). There is also indicated a risk that increased productivity can reduce output in the case of the deleveraging process. As a result it creates considerable difficulty for decision makers to choose an optimal policy.

For local governments, the ability to end their expansionary investment policy and growth of debt may be additionally difficult. As shown by R. Sobel and G. Crowley (2014), there are ratchet effects in state and local taxes created by inter-governmental transfers. In addition, as described in F. Padovano (2013), there is soft budget spending behavior in local governments from the perspective of central government expected transfers. These features may prolong local government policies which in fact are unsustainable and inferior from a productivity perspective.

In this paper I extend the research on local government sector stimulation policies and their sustainability from a debt and productivity perspective. First, I show the size of local government investments across the EU countries and their importance for the whole economy in the period between 2003-2012, which covers both pre-crisis and crisis years. Next, I analyze changes in the debt levels of local governments and the relationship between local government investments and their debt. Simultaneously, I construct the productivity measures for local governments and analyze these indicators across the countries and how they evolve in the years 2003-2012, especially in the context of economic slowdown.

The analysis verifies whether the debt-financed investments of local governments resulted in improved productivity of their operations. Adverse trends in this area may indicate limited rationality of the undertaken stimulation policies from a five year perspective and in practice the unsustainability of such policies. A further increase of debt, even if resources are channeled to investment activities, may not support growth adequately. In addition, it may disproportionately hamper growth during deleveraging policies in the future.

2. Methodological notes

The following analysis covers the European Union countries for the period 2003-2012. All data is taken from the Eurostat online database. The analysis does not include Cyprus, Greece, Luxemburg and Malta due to the very small or even negligible local government sector in these countries. Additionally, Croatia was omitted in this analysis due to lack of relevant data for 2003-2008 in Eurostat.

The analysis was conducted for all other EU countries, including Scandinavian countries (Denmark, Finland, Sweden) where the local government sector is particularly large and performs a much wider set of tasks than in other EU countries. It also has lower cyclicity of investments. Since, the Scandinavian countries are to some extent the outliers, which may distort the research outcomes, an analogous “control” analysis was also conducted without Scandinavian countries. This delivered similar results, which are available per request.

The term “local governments” in this article refers to all sub-central governments (i.e. state and local governments according to Eurostat classification). The productivity indicator is calculated as a ratio of annual output to annual revenues for local governments. Investments are represented by Gross Fixed Capital Formation (GFCF). Abbreviations of country names are from Eurostat.

This article presents a synthesis of wider research related to financial position, debt capacity and demographic changes in local governments during the crisis and their impact on the real economy.

3. Local government investments

The recent economic slowdown was accompanied by a change of local governments' activity profile in the EU countries. They focused more on investment projects. As a result, in the years 2007-2010, the relationship of GFCF to local government revenues amounted on average to 17%, reaching the maximum of 17.4% in 2008. Before the crisis it was on average 14%. Although in 2007 this increase was recorded in Ireland and mostly in Central and Eastern European countries (new EU members), and could be potentially explained by inflows of new structural funds from the EU budget, in 2008 this effect was visible in the prevailing majority of EU countries. Thus, at the very beginning of the crisis local governments channeled disproportionately more resources into investments, despite simultaneously growing social transfers.

This is confirmed by the ratio of local government investments to GDP. It grew from ca. 1.6% of GDP in the years 2003-2005 to 2.0% of GDP in 2008-2010 and 1.85% in 2007. This clearly countercyclical behavior produced an important stimulation impulse for slowed down economies. The only country which experienced a noticeable drop of this indicator in the years 2008-2009 compared to the ten-year average was Hungary, which already was in the middle of a deep fiscal and political crisis.

The significance of local government investments in crisis could be adequately judged when they are compared to total investments in the economy. Up to 2007, they did not exceed 8% of total GFCF (on average 7.3%). In 2008 they amounted to 8.1% and in 2009-2010 to a record high 9.8% and 10.2%, respectively. In 2011 they amounted to 9.1% and in 2012 to 8.5% of all GFCF. In nine countries (Ireland, Spain, France, Latvia, Lithuania, Netherlands, Poland, Slovenia, and Sweden) local government GFCF exceeded 10% of total GFCF in the years 2009-2010. They achieved the highest level in Poland and Ireland, reaching 16% of total GFCF (see Table 1). Thus, local governments' GFCF replaced contracting private sector investments and supported domestic demand on a relatively stable level. Their role was beneficial from the perspective of the counter-cyclical policy of the public sector.

Table 1. Local government GFCF as % of total GFCF

Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Belgium	7.7	7.1	7.2	7.3	6.2	6.0	7.0	7.3	7.7	7.8
Bulgaria	4.1	3.5	4.0	4.7	6.1	5.9	7.0	7.0	5.6	6.6
Czech Republic	7.4	8.0	6.8	8.0	6.6	7.6	10.3	9.2	8.8	8.0
Denmark	5.9	6.5	6.3	6.5	5.4	5.9	7.5	8.0	8.4	9.2
Germany	7.2	6.6	6.1	6.2	6.2	6.6	7.8	7.4	7.1	6.5
Estonia	4.5	4.7	4.1	5.0	5.9	7.0	8.6	5.6	5.1	7.4
Ireland	12.4	11.1	9.5	10.0	12.8	14.9	15.1	16.3	12.4	9.1
Spain	9.7	8.1	8.7	8.8	9.5	9.8	13.7	12.9	10.0	5.7
France	11.2	11.6	11.8	11.5	11.4	11.2	12.4	11.2	11.0	11.3
Italy	9.4	9.9	9.1	8.8	8.2	8.2	9.5	8.0	7.5	7.5
Latvia	4.8	5.0	3.6	4.7	8.3	10.4	12.7	13.9	11.4	10.0
Lithuania	4.7	4.7	3.4	4.6	6.1	7.8	9.5	14.2	11.4	10.9
Hungary	8.8	7.3	7.6	9.2	7.3	5.9	7.0	12.0	10.0	7.4
Netherlands	11.3	10.9	11.6	11.2	11.3	11.3	13.4	13.7	12.5	13.2
Austria	4.2	3.7	3.7	3.8	3.5	3.7	4.2	3.8	3.1	3.1
Poland	12.1	10.2	11.5	13.1	11.5	11.8	14.9	16.8	14.9	12.4
Portugal	8.9	8.4	9.0	6.8	7.0	8.0	8.2	8.6	7.2	5.7
Romania	3.6	4.3	4.1	6.5	8.9	7.7	8.9	8.8	10.8	9.8
Slovenia	6.0	5.8	6.3	6.6	6.4	7.7	11.0	13.7	11.0	10.9
Slovakia	3.7	3.3	4.6	4.7	4.2	4.5	6.8	7.9	6.0	5.2
Finland	9.4	8.9	8.2	8.1	7.3	8.0	9.3	9.5	9.4	9.8
Sweden	9.3	8.6	8.7	8.6	8.6	9.0	10.6	10.5	10.4	10.9
United Kingdom	6.4	6.2	6.3	5.9	5.6	7.1	9.0	8.3	8.2	8.3

Note: Observations which are 2.5% or more above the ten-year average are in bold.

Source: Own calculations based on Eurostat data.

4. Local government debt and financing of investments

The active investment policies of local governments during the crisis resulted in a growth of their indebtedness. In the years 2003-2007, local governments' average net lending (+) / borrowing (-) amounted to -0.2% of GDP. That was changed radically in the 2008-2011 period, when net borrowing amounted to -0.6% of GDP, with the highest borrowing needs in 2009 (-0.74% of GDP). In 2012 net borrowing dropped to -0.19% of GDP, which may indicate either increased austerity or approaching the debt capacity limits.

In 2003-2007, the local government sector in five countries (Belgium, Ireland, Austria, Slovakia and Sweden) managed to generate a cumulative net surplus in debt position i.e. repaid part of the past debts. In the 2008-2012 period, no country generated a cumulative net surplus in debt position. Average net borrowing amounted to -0.5% of GDP per year. As a result, the local government debt to GDP ratio, which was on a relatively stable level of 5% in the 2003-2008 period, grew to 7.2% in 2012. As a percentage of local government revenues, debt grew from an average ratio 37.8% in 2008 to 49.0% in 2012. Having in mind their increased investment activity, this increase of debt may still be rational.

The largest increase of debt during the crisis was in Spain (by more than 10% of GDP). However, that increase was not correlated with adequate growth of investments. It resulted from deeper problems than in other countries with generating operational surplus for financing current expenditures by local governments. In other countries (except Austria and Denmark) there exists a relationship between growth of investments and growth of debt. It is most visible for two-year averages (i.e. average data for 2003-2004, 2005-2006, etc.) and a comparison of the non-lagged data. Then, the median correlation ratio for all countries (including Spain, Austria and Denmark) amounts to -0.76. The analysis of lagged relationships between variables delivers lower correlation levels.

Although the EU local governments during the crisis were permanent borrowers, the debt taken on did not exceed the investment expenditures in particular years (the only exceptions were Spain in 2010-2012 and Austria in 2009-2010). During the crisis, the local government sector constantly generated an operating surplus which partially financed investments. The new debt did not finance consumption and thus it had growth-supporting qualities through multiplier effects.

Table 2. Correlation ratios for local government investments and net borrowing

	BE	BG	CZ	DK	DE	EE	IE	ES	FR	IT	LV	LT	HU
annual data	-0.50	-0.53	-0.77	0.03	-0.22	-0.74	-0.12	0.05	-0.91	-0.77	-0.75	-0.29	-0.59
two-year averages	-0.53	-0.78	-0.82	0.17	-0.19	-0.76	-0.13	0.30	-0.90	-0.89	-0.91	-0.66	-0.79
	NL	AT	PL	PT	RO	SI	SK	FI	SE	UK		average	median
annual data	-0.72	0.06	-0.88	-0.55	-0.66	-0.60	-0.88	-0.59	-0.39	-0.49		-0.51	-0.58
two-year averages	-0.85	0.03	-0.88	-0.46	-0.96	-0.63	-0.91	-0.59	-0.46	-0.78		-0.59	-0.76

Note: Table presents linear correlation between variables for the same years. The analysis without Scandinavian countries resulted in higher correlation ratios.

Source: Own calculations.

5. Changes of productivity in local governments

Productivity of local governments is measured as output to revenue ratio. First, one should notice that this indicator was the highest in 2003, when it amounted to 76.9% on average. Since then, the productivity has gradually declined, reaching the lowest level of 72.1% in 2007. In the next year it increased to 73.2%. From 2009-2012 it stayed on average in the range of 73.0%-74.4%, and did not reach the pre-crisis levels.

When analyzing individual countries (see Table 3), there are two basic trends observable. From the perspective of Western European countries (excluding Scandinavia), there is a general tendency of productivity growth from 2008, which could have been one of the stabilizing forces for the economy during adverse macroeconomic conditions. In particular, this trend was visible for countries with the deepest problems (Ireland, Spain, Portugal and Italy). On the other hand, Central and Eastern European countries with high pre-crisis productivity of local governments experienced a remarkable drop in productivity during the economic slowdown (especially in Bulgaria, Latvia, Lithuania, Hungary and Romania). That may also indicate distortions in the provision of public goods in these countries.

Table 3. Productivity ratios (output/revenue) for local governments (in %)

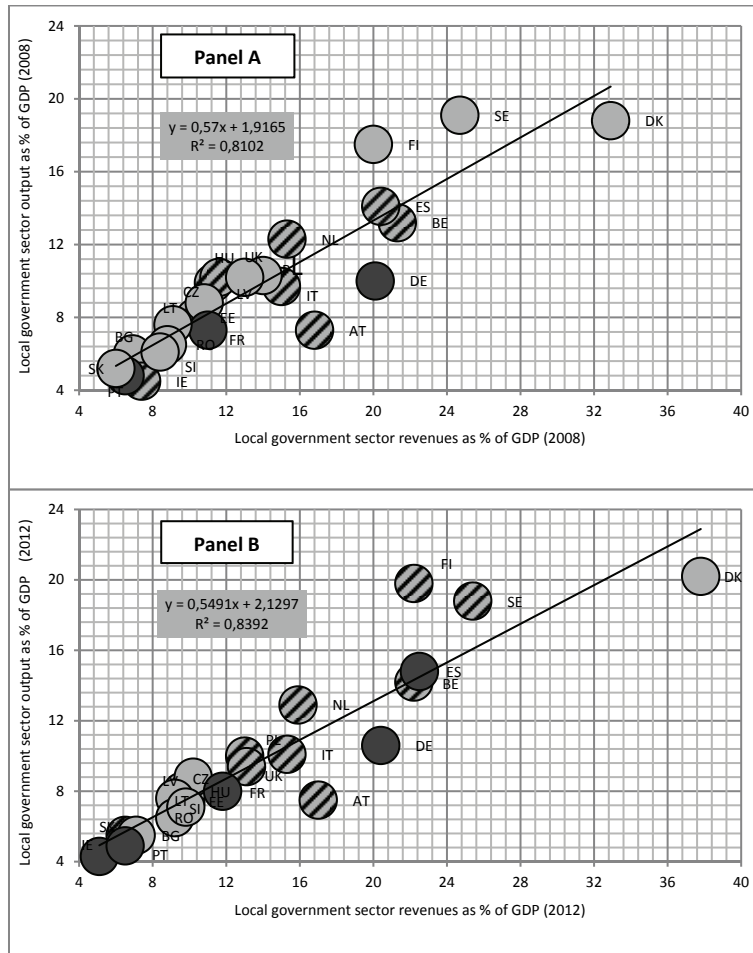
Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Belgium	62.9	63.1	62.2	62.7	61.7	62.0	64.8	65.1	63.2	64.0
Bulgaria	111.3	101.5	107.5	92.4	90.8	87.0	79.2	81.4	82.1	77.5
Czech Rep.	82.8	79.8	82.3	82.1	77.7	81.5	81.7	80.5	81.8	86.3
Denmark	57.6	57.7	57.8	56.7	57.0	57.1	58.2	56.2	54.0	53.4
Germany	55.8	54.5	53.4	51.5	49.0	49.8	52.9	54.0	51.7	52.0
Estonia	82.8	83.5	82.4	76.9	76.7	77.7	80.6	80.4	78.4	75.5
Ireland	67.1	67.4	62.1	59.4	57.7	60.8	64.8	70.3	78.6	84.3
Spain	63.4	61.8	62.4	60.6	63.2	69.1	69.2	76.4	81.1	65.8
France	66.0	65.1	65.4	64.8	64.2	66.4	65.5	66.1	66.7	67.8
Italy	62.5	64.6	65.1	66.7	62.2	64.7	63.2	66.9	66.7	66.0
Latvia	97.9	94.9	86.2	82.4	84.6	87.6	89.2	73.7	82.4	83.3
Lithuania	93.3	90.0	93.8	93.8	88.8	83.5	90.4	78.8	81.4	82.6
Hungary	89.4	91.2	91.1	90.2	87.3	87.9	90.8	89.9	81.1	80.8
Netherlands	77.0	78.8	78.8	79.6	79.6	80.4	79.3	81.1	81.3	81.1
Austria	44.4	44.6	44.9	44.8	43.8	43.5	45.6	45.8	44.4	44.1
Poland	83.3	79.2	78.6	75.4	73.9	73.6	78.1	78.3	76.1	76.9
Portugal	70.7	68.3	73.3	71.9	71.9	73.8	77.6	78.1	75.8	75.4
Romania	84.1	77.9	77.1	69.0	63.2	73.9	73.1	66.3	63.9	70.7
Slovenia	76.7	75.3	74.4	73.3	71.1	72.6	70.5	72.2	72.9	72.4
Slovakia	91.7	84.1	86.6	90.5	88.3	86.7	92.3	92.2	83.3	84.6
Finland	89.7	90.3	90.5	88.1	87.4	87.5	88.2	86.2	87.3	89.2
Sweden	80.0	80.2	78.0	78.5	77.6	77.3	76.9	74.7	74.7	74.0
UK	77.9	79.5	81.3	79.5	80.0	78.5	79.7	78.1	76.7	71.8

Note: Observations which are 2.5% or more above the ten-year average are in bold.

Source: Own calculations based on Eurostat data.

It is important to notice that in the case of several countries, the productivity of local governments remains at a relatively higher level. These are Finland, Sweden, the Netherlands, Poland, the Czech Republic and Latvia (see Figure 1). This situation did not change during the period of economic slowdown. The indicator is also not correlated with the size of the local government sector in these countries. Likewise there is no clear rule that low indebtedness supports increased productivity of local governments. Some countries like, for example, Slovenia and Romania, have low productivity despite very low debt levels.

Figure 1. The relationship between local government revenues and output in 2008 and 2012



Note: The color of the circle depicts the debt/revenue ratio: white 0%-30%, striped 30%-60%, gray above 60%.

Source: Own calculations.

6. Sustainability of local government investment policies

The important question is whether the above-described investment activities of local governments are sustainable and efficient. To answer this question, the trends for investment, debt changes and productivity were analyzed. For each year in the period 2003-2012 there were calculated regressions between revenues and output for all analyzed countries. For each year, the derived functions had similar coefficients and satisfactory R^2 from 0.79 to 0.85 and statistically significant parameters (see Table A in Appendix). Based on these functions deviations from productivity trend (i.e. productivity surpluses and shortfalls) of individual countries were calculated for each year. The results were grouped into two periods: pre-crisis (2003-2007) and crisis (2008-2012) – see Table B in Appendix.

An analysis of the correlation between productivity surpluses/shortfalls, investments and net lending/borrowing did not deliver statistically significant results for the pre-crisis period. However, for the crisis period the analysis revealed statistically significant dependence between investments and productivity and a moderate relationship between investments and net lending (see Table 4). In particular it showed that increased investment efforts were undertaken by countries with a higher than average productive local government sector.

Table 4. Correlation ratios between average (2008-2012) investments, productivity and net lending/borrowing

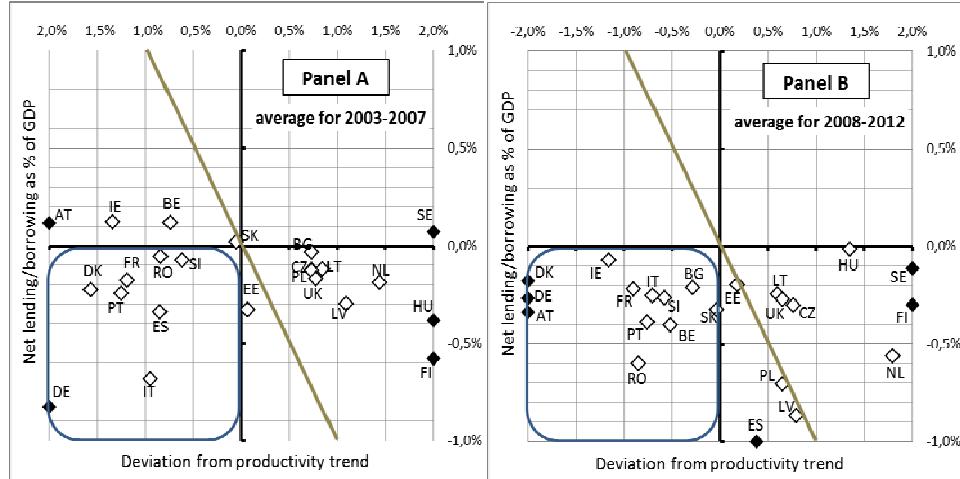
	<i>Productivity (dev. from trend)</i>	<i>Net lending</i>	<i>Investments</i>
<i>Productivity (deviation from trend)</i>	1,00		
<i>Net lending</i>	-0,16	1,00	
<i>Investments</i>	0,43 ⁺	-0,34 ⁺⁺	1,00

Note: Significance levels are: ⁺ $\alpha = 0,04$ and ⁺⁺ $\alpha = 0,11$.

Source: Own calculations.

This generally positive observation needs further verification. For this purpose, an analysis was conducted into how the relative position of local government sectors changed in terms of productivity surpluses/shortfalls and net lending/borrowing compared with the pre-crisis (Figure 2, Panel A) and crisis periods (Figure 2, Panel B). The most favorable area from the perspective of local government soundness and financial standing is the first quadrant of the coordinate system (higher productivity and debt reduction). The worst one is the third quadrant (lower productivity and growing debt). The second and fourth quadrants have mixed interpretation, for simplicity it might be assumed that the division between the favorable and unfavorable position is along a line with a 135° slope.

Figure 2. Productivity surpluses/shortfalls and net debt changes for local governments



Note: The charts have a 2:1 scale of axes. Therefore, a line with a 135° angle looks like it has a slightly different slope.
 Observations which did not fit in the scale on the charts have black marks and are shown on the relevant borders of the charts.

Source: Ibid.

The analysis shows clearly the deteriorating condition of local governments across the EU countries during the crisis. The group of countries in the third quadrant has grown. Initially, there were 8 such countries, compared to 5 with a partly negative profile and 10 with a positive and partly positive profile (see Figure 2, Panel A). During the crisis, the group with the worst profile grew to 12 countries (see Figure 2, Panel B). This indicates that the anti-crisis policies of local governments were overstretched and delivered substandard performance for the majority of countries regardless of their relative performance. Thus, the growing level of debt became a true concern. Even countries with relatively productive local governments like Latvia and Poland may encounter difficulties in stabilizing their local government finances in the future. This is especially the case, since this is accompanied with a general tendency for ratchets effects in public expenditures (including operating costs).

Conclusions

The recent economic slowdown was accompanied by a change of local governments' activity profile in the EU countries. They focused more on invest-

ment projects. As a result, in the years 2008-2010 the relationship of GFCF to revenues for local governments grew to 17%. Their role was beneficial from the perspective of the countercyclical policy of the public sector. Investment growth was positively correlated with productivity indicators.

The active investment policies of local governments resulted in their higher indebtedness. Average annual net borrowing amounted to 0.5% of GDP per country during the crisis period. This was not noticeably linearly correlated with an increase in productivity. Further analysis showed a relative deterioration of the financial position of local governments regardless of their productivity profile. After productivity growth in the period 2008-2009, the subsequent years experienced an overall deterioration of local government sector productivity. In 2012, the output to revenues ratio dropped to 73.0%. Simultaneously, the share of local government investments in total investments decreased to 8.5% and the investment to revenues ratio dropped to the level of 14.0%, more characteristic for the pre-crisis period.

The growing level of debt is becoming a true concern for local governments. Taking into consideration also the lasting fiscal strains, this shows the limited potential for further stimulation of the economy with debt / deficit instruments. In fact, such policies appear to be unsustainable, both in the context of future debt repayments, as well as the failure to lead to increased productivity. As a result, this may undermine the pace of future economic revival, despite the generally positive impact of local government policies on the economy during the crisis. This indicates a strong need for further research on how to conduct the deleveraging process in local government sectors without causing negative spillover effects on economic growth.

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Appendix

Table A. The model properties of cross-country regressions between revenues and output

Year	R ² for model	F significance	t significance (intercept)	t significance (variable)
2003	79%	0,00	0,01	0,00
2004	79%	0,00	0,02	0,00
2005	81%	0,00	0,02	0,00
2006	81%	0,00	0,03	0,00
2007	81%	0,00	0,06	0,00
2008	81%	0,00	0,05	0,00
2009	83%	0,00	0,04	0,00
2010	85%	0,00	0,04	0,00
2011	82%	0,00	0,03	0,00
2012	84%	0,00	0,02	0,00

Note: For each year a separate regression function was calculated.

Source: Own calculations based on Eurostat data.

Table B. Average annual net lending, investments and deviation from productivity trend for local governments in 2003-2007 and 2008-2012 periods

Country	2003–2007			2008–2012		
	% dev. from prod. trend	net lending (% GDP)	investments (% GDP)	% dev. from prod. trend	net lending (% GDP)	investments (% GDP)
Belgium	-0,74	0,12	1.45	-0,52	-0,40	1.48
Bulgaria	0,74	-0,03	1.11	-0,28	-0,21	1.64
Czech Republic	0,74	-0,12	1.93	0,76	-0,30	2.16
Denmark	-1,57	-0,23	1.24	-2,44	-0,26	1.40
Germany	-2,73	-0,83	1.15	-3,00	-0,40	1.26
Estonia	0,07	-0,33	1.61	0,18	-0,20	1.61
Ireland	-1,34	0,12	2.81	-1,16	-0,07	1.99
Spain	-0,85	-0,34	2.62	1,13	-3,39	2.42
France	-1,19	-0,18	2.24	-0,90	-0,22	2.28
Italy	-0,95	-0,68	1.90	-0,70	-0,25	1.58
Latvia	1,09	-0,30	1.61	0,80	-0,87	2.61
Lithuania	0,85	-0,12	1.14	0,60	-0,25	1.96
Hungary	2,06	-0,38	1.79	1,35	-0,02	1.61
Netherlands	1,44	-0,19	2.19	1,80	-0,56	2.34
Austria	-4,03	0,12	0.83	-4,09	-0,50	0.76
Poland	0,74	-0,13	2.24	0,65	-0,71	2.90
Portugal	-1,25	-0,25	1.84	-0,75	-0,39	1.48
Romania	-0,84	-0,06	1.41	-0,85	-0,60	2.44
Slovenia	-0,62	-0,08	1.60	-0,58	-0,27	2.28
Slovakia	-0,04	0,02	1.06	-0,03	-0,32	1.33
Finland	4,14	-0,58	1.66	4,69	-0,60	1.82
Sweden	3,48	0,07	1.58	2,68	-0,13	1.92
United Kingdom	0,78	-0,17	1.04	0,65	-0,27	1.23

Source: Ibid.