Selected Aspects of Performance of the Government Sector in the Czech Republic in the Context of EU Countries

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Abstract

Comparative study deals with the development of important aspects of performance of the government sector in the EU countries since 2000. Using standard outputs of national accounts shows shifts in position of individual countries in terms of government deficit and debt. These key Maastricht criteria are examined also in different phases of economic cycle. This relationship is complex as seen the example of new EU countries, which created notable deficits also in period of economic upturn. Significant long-term differences in structure of revenues and expenditures between CR and whole EU are depicted. In boom period (2000-2008) share of the government debts repayments dropped in favour of growth of investment expenditures, notably in new EU members. In 2009 in two thirds of member countries pecuniary social benefits were relatively most dynamic expenditure item, especially in the Baltics. In a subsequent period of consolidation both the weight of expenditures on the operation of the government sector and investment expenditures were reduced. Finally the attention is paid to structure of government debt from the aspect of different types of creditors or financial instruments covering the debt. The role of local government in growth of whole government debt is outlined.

Keywords

Government deficit and debt, structure of revenues and expenditures of government sector, economic development, government bonds yields, EU countries, local government

JEL code

H11, H62, H63, H72, H81

INTRODUCTION, AIM OF THE STUDY

At present, the enduring crisis in the EU countries raises wide spectrum of questions. Up to which measure the current lengthy economic slow-down affected the revenues and expenses of government institutions? Which countries have chosen the way of reducing the deficits at a price of the investment reduction and which by cutting of expenses of the government sector "operation"? How big scope is given to individual countries to the improvement of their public finance by current performance of economy and its implications on the labour market? What is the share of individual central or local-governments

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in the total indebtedness of the Union countries? Which countries brought their debt already from the earlier period of the economic growth? What is the burden of the debt service management in the budgetary expenses of individual countries and what is their contribution to current reported deficits? The following analysis attempts to provide answers to some of the above questions.

The analysis is aimed to mapping out the development of important aspects of overall performance of the sector of government institutions in the EU[2] countries (according to data completed also in the EFTA countries) by standard outputs of national accounts. Primarily the period from 2000 has been analysed mainly in the annual aspect.

The government sector includes all institutional units whose principal economic function subsists in the provision of non-market services and distribution of income and national wealth. They are financed especially by mandatory (direct and indirect) payments from other units. Majority of its operating costs they do not cover from their own revenues but by subsidies allocated by central or local authorities. The government sector includes especially central budgetary organizations, state funds, other extra-budgetary funds (e.g. Land Fund or Vine-grower Fund), public universities and some semi-budgetary organizations (centrally managed). Government sector includes also social security funds (mainly health insurance companies managing compulsory health insurance) as well as local government institutions (territorial government units and various institutions, which are directly controlled by them – e.g. Voluntary Municipalities Associations, Regional Councils of Region and some semi-budgetary organizations (locally managed).

The performance of government sector is outlined mainly by set of main aggregates[3] including non-financial transactions of institutional units classified in the general government sector (S.13) and they are split by its sub-sector. They are based on methodology of national accounts (the Regulation (ES) No 2223/96 on European System of Accounts – ESA95) and on complementary regulations of European union on the ESA95 and on notifications of government deficit a debt,[4] to capture short-time development some additional indicators were used (e.g. long term government bond yields).

1 LONG-TERM DEVELOPMENT OF DEFICIT AND THE GOVERNMENT SECTOR DEBT

Performance of the government sector is, like that of all other institutional sectors of economy, recorded in detailed set of tables of national accounts. In respect of specific function of the government sector some of the indications from this set acquire an extraordinary importance. Basic indicators describing economic behaviour of the government institutions sector are generally considered the government surplus/deficit[5] (showing the ability of the general government sector to finance other entities (+) or the need of the general government sector to be financed (–) in the given year) and total government debt[6] arising mainly from the accumulation of budgets deficits from the past and which can be understood also as a result of long-term economic activity of government institutions.

2 From 1 July 2013 became the order of the 28th EU member Croatia. At the time of compilation of this study, however, relevant data on government statistics for Croatia were available only for 2009–2012. Therefore, the position of Croatia in most cases is only briefly commented on in the text. Only in those parts of the analysis that specifically focus on the government sector in period of recession, the position of Croatia was captured also in graphical form. Effect of Croatia itself to the values of performance indicators of the government sector in the whole EU is virtually negligible.

3 For better understanding described aggregates are provided with codes of non-financial transactions corresponding to ESA95 rules and to the regulations of EU

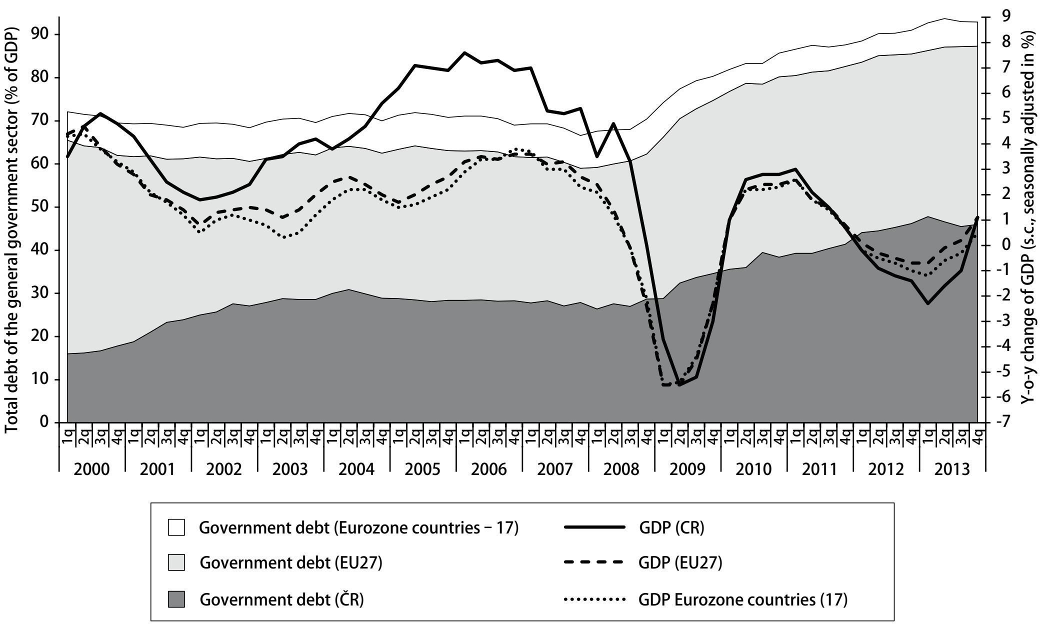
4 E.g. 1500/2000, 2516/2000, 2558/2001, 351/2002, 3605/1993 a 2103/2005.

5 I.e. EDP B.9. Refers to net borrowing (–) – net lending (+) including interest on swap transactions.

6 The government debt is defined as the total consolidated gross debt at nominal value at the end of the year in the following categories of government liabilities (as defined in ESA95): currency and deposits (AF.2), securities other than shares excluding financial derivatives (AF.3, excluding AF.34), and loans (AF.4). At the national level, data for the general government sector are consolidated between sub-sectors.

The share of the government sector debt in the whole EU (including 27 countries) oscillated long without bigger fluctuations closely above the level of 60% of the GDP. It thus failed to reach the debt of the Eurozone, yet, since 2009 it slightly converged to its level (mainly due to the high growth of the government debt of the third biggest Union economy – Great Britain). It is interesting that this convergence took place in the period when the y-o-y growth rate of the GDP was comparable in these formations while between the years 2001–2005, when the growth of the Eurozone economy was moderately lagging behind the whole EU, the growth of indebtedness in both formations took place identically (see Figure 1). Within the Eurozone the Maastricht criterion of the government debt is exceeded continually by five members – Greece, Italy, Belgium, Austria and Germany (save for the year 2001). Gradually, their number was increased by France (since 2003), Portugal (since 2004), the Netherlands, Ireland (since 2009) and Spain (since 2010) and out of new members then Malta, Cyprus and recently Slovenia.

Figure 1 Long-term development of the government sector debt* and the GDP in the CR, EU and the Eurozone countries



* Quarterly government debt is defined as the total gross debt at nominal value outstanding at the end of each quarter between and within the sectors of general government.

Note: Considering the availability of comparable long time series the membership of the countries in economic formations (EU, Eurozone) was assessed by the situation relevant for the end of 2012.

Source: Eurostat

The development of the government sector debt in the countries which became members of the EU as late as after the year 2000 showed the features of significant difference attributed also to different "starting position". The government sector in Bulgaria, Hungary and partly in Poland brought rather big debt from the years of transformation and its squeezing required after the year 2000 a relatively significant share of government expenditures. The level of the Czech government debt in the latter half of the 1990's belonged in Europe, along with the Baltics and Romania, to the smallest ones, however, contrary to them, after 2000 the level of debt in the CR began to increase and its development until 2010 has significantly copied the growth rate and debt level in Slovenia since. High budgets deficits exceeding also the deficit in the period 2009–2012 were the main reason for growing indebtedness in the CR between the years 2000 and 2003. The dynamic growth of economy between 2003 and 2008 did not lead to a significant reduction of the government debt in the CR only but the similar situation took place also in Poland, Slovenia or Hungary. Government sector of these economies remained in deficits (rather significant in Hungary) also due to a big share of investment expenditures (environment, infrastructure, etc.).

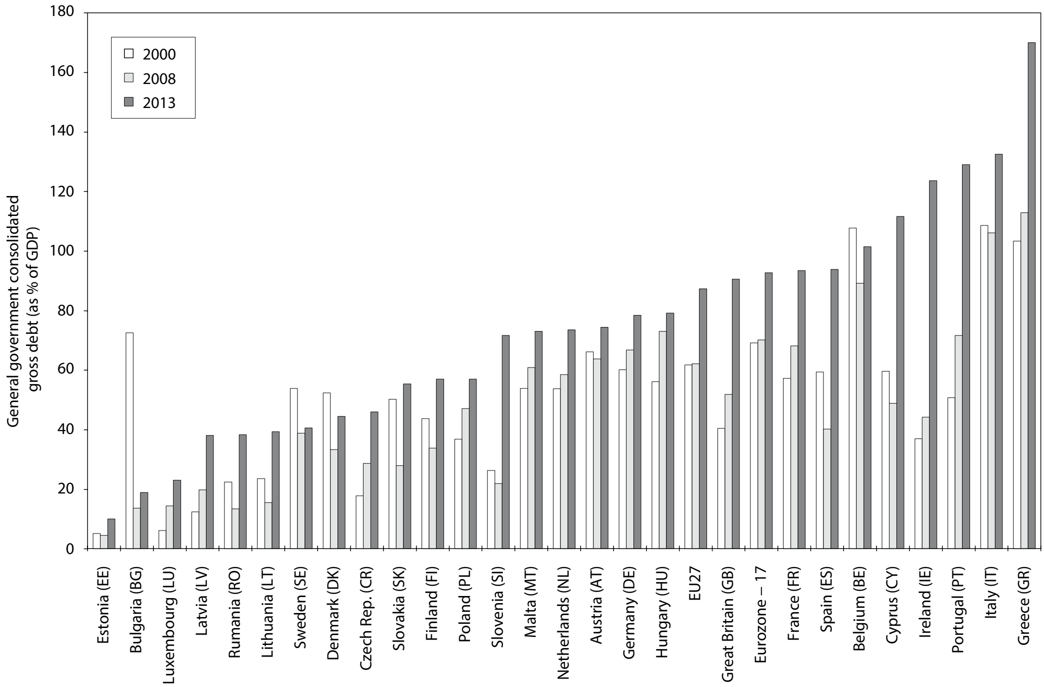
Profound economic recession which gradually affected practically all European countries has reflected relatively quickly in the growth rate of their government debt. The debt (in relation to GDP) markedly increased as early as in the 4th quarter of 2008 (e.g. in the Eurozone countries to 70.4% from 68.0% in the previous quarter). In majority of Union member countries the debt has been increasing continually. The most significant growth was recorded just in 2009 when a sharp y-o-y drop of total revenues of government sector (usually more marked than the drop of GDP) was impossible to quickly and adequately compensate at the expenditure side. In the following years the governments of individual countries reacted both by economies at the expense side (especially in case of non-mandatory expenditures which can be adjusted faster) and the efforts to increase revenues. This referred mainly to an increase of indirect tax rates (only seven EU countries – Germany, Austria, Denmark, Belgium, Luxembourg, Sweden have not adjusted the VAT rates since 2009 and the same applies to Slovenia as the only one of new member countries). In addition almost two thirds of countries in this period decided to adjust the income taxes of physical persons – in the overwhelming majority in the upward direction while the increase of rates was more marked in the Eurozone countries than in the whole EU. This has lead to deepening of the difference between rates within both formations. Between 2009 and 2013 more significant adjustment of corporate tax rates took place roughly in one third of the EU countries, in most of cases slightly downward.

The above effects along with the return to a moderate growth of economy in 2010–2011 helped a significant majority of countries to cut down high government deficits and consequently also to slow down the rate of growth of total indebtedness. An exception was represented by the South European countries (Spain, Portugal, Italy, Cyprus) whose government sector debt in relation to the GDP grew most as late as during 2012. Similar problems would probably face also Greece if it were not for a strong financial injection from powerful European institutions. In context of the whole period from the beginning of recession, in the last year (2012) the biggest increase of the government debt was recorded also in Slovakia (from 43.6% of GDP by the end of 2011 to 52.7% a year later), the Netherlands, Estonia and Bulgaria – it most refers to relatively less indebted countries. Higher increase of the government sector debt was recorded also in the CR in 2012 (from 41.4 % to 46.2 %), the result was negatively affected, among other things, by the emission of government bonds exceeding the level of deficit at a time when in the long-term bond market a relatively favourable situation dominated.

Deficits of the government sector in the Eurozone countries (17) have been since 2006 always slightly smaller than in the whole EU27 which resulted into a different growth rate of the government debt in these formations. The government sector in the CR has recorded more profound deficits then in EU since 2000 almost up to the beginning of the deep recession regardless the fact that the growth of Czech economy was stronger (mainly in the years 2004–7). The subsequent worsening of government deficits in the period of the outbreak of economic crisis, however, in the CR it did not reach the depth of majority of the Union countries. An exception was the year 2012, when bigger deficit (–4.4 % GDP) was attributed to financial compensations within the church restitutions (CZK 59 bln) and corrections of EU subsidies pre-financed from the state budget (returned means in the amount of CZK 12 bln). If it were not for both above mentioned effects, the government sector deficit would have reached –2.5% of GDP.

Government sector in the Czech Republic achieved on the long-term basis smaller deficits than in Slovakia and this tendency has been strengthened by deep recession since 2009. In addition situation in Slovakia is worsened also by striking disparities in the labour market (high unemployment rate accompanied by strong regional disparities and growing number of persons threatened by poverty). On the contrary, some of Czech neighbours – Austria and Germany – traditionally belong to countries managing to tame their government deficits with relative success although they did not succeed to avoid the significant drop in 2009. Relatively favourable situation in both German and Austrian labour market is as contribution in this respect. Germany along with Sweden, Estonia and Luxembourg as sole Union countries managed from the beginning of global recession to reach (by 2013) balanced government budgets. In addition Sweden (as the only EU country) between 2009 and 2012 did not increase its total government debt (in relation to the GDP).

Figure 2 Development of total debt of the government sector (by the year-end, % GDP)

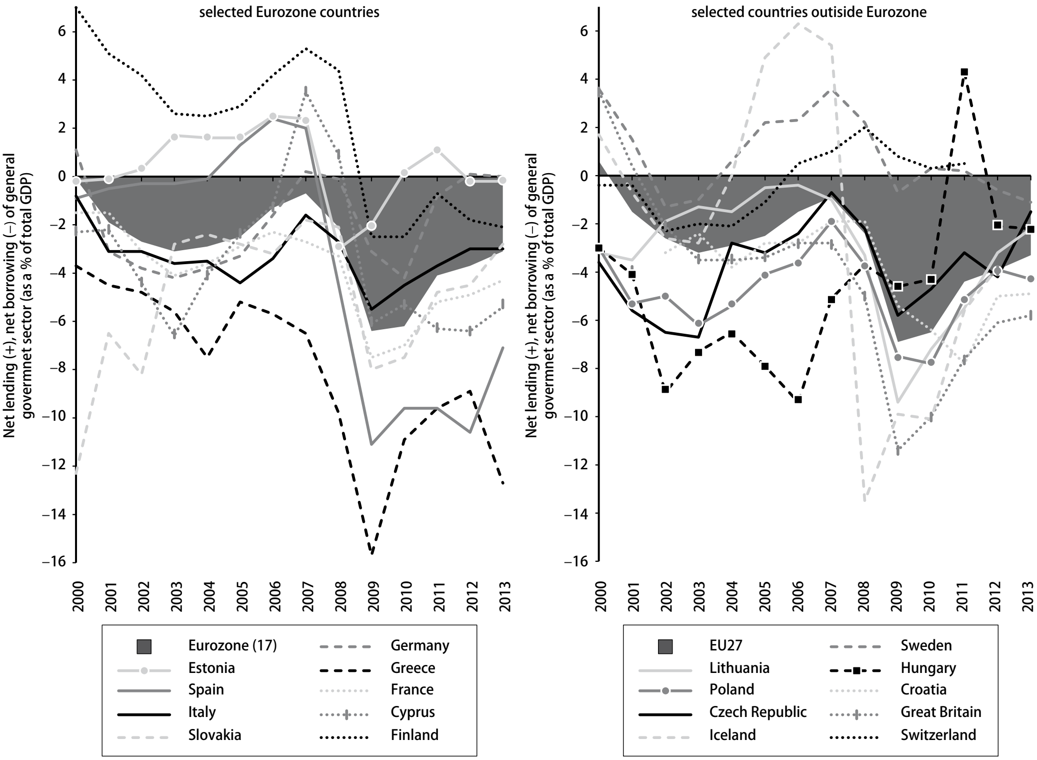


Note: Membership of countries in economic formations (EU, Eurozone) was in all period assessed by the condition at the end of 2012.
Source: Eurostat

In the last decade, almost in all EU countries the increase of total indebtedness of government sector (in relation to GDP) was recorded (see Figure 2). Some less indebted Northern countries (Denmark, Sweden), as well as Bulgaria or Belgium (which brought the big debt already from the 1990's) were an exception. Out of countries showing big debts especially Belgium succeeded to tame its public finance for the last decade. By contrast, the biggest increase of relative indebtedness was recorded in Ireland and in South European countries most severely affected by deep recession. Position of the CR in 2012 was in the first third of countries showing the lowest level of indebtedness, its growth rate, however, exceeded the EU average in the last decade. The Czech Republic may thus benefit from the fact that it entered the new millennium as the fourth least indebted country (following Luxembourg, Estonia and Latvia).

In European context, Northern countries traditionally cope with the smallest problems with government deficits in despite of the fact that their budgets, as usual, allocate (in relation to GDP) significant amounts to social politics. Government sector in Finland maintained until the outbreak of crisis an exclusive position in the whole Union (in 2000–2008 it generated on average the surplus exceeding

Figure 3 Long-term development of net lending (+) / net borrowing (–) of government sector in selected countries within the Eurozone and outside (% GDP)



Note: Membership of countries in economic formations (EU, Eurozone) was in all periods assessed by the condition at the end of 2012.
Source: Eurostat

+4% GDP) and their consequent drop in 2009 was, compared to the rest of Europe, smaller and as soon as during 2011 they again approached the balanced position.

Dragging economic slow-down has significantly worsened in the last years the results of economic performance of government sector across EU countries. While in 2007 only three countries (Greece, Portugal, Hungary) failed to fulfil the Maastricht 3% deficit criterion, a year later half of all EU countries failed to meet it and in 2011 the number of failing countries increased almost to two thirds (including the Czech Republic). In the last three years (2011–2013) this criterion was performed only by Northern countries, Luxemburg and two of Czech neighbours (Austria and Germany), then Hungary, Bulgaria and Estonia (see Figure 3).

2 DYNAMICS OF RELATIONSHIP BETWEEN DEFICIT/SURPLUS THE GOVERNMENT SECTOR, GOVERNMENT DEBT AND ECONOMIC DEVELOPMENT

The result of mutual confrontation of revenues and expenses of the government sector is, as a rule, government deficit (net borrowing). Especially the development of revenues of the government sector (mainly direct taxes) is, however, tightly bound to the performance of national economy. Government deficit in each year becomes then a basis for the government debt increase. Countries suffering from long-term government deficits as well as indebtedness have limited options for support its economic growth (e.g. via government investment).

The relationship between the above macroeconomic terms is not a direct one. For the sake of better understanding it is possible to make a rough division of the period after 2000 into three time intervals, which mutually differ by their dynamics of real growth (drop) of GDP. The first period (2001–2003) is characterised in the EU countries by general, however, moderate economic growth, modest y-o-y growth rate of GDP was obvious especially in the biggest Union economies. The second period (2004–2008) was practically for all countries linked with the economic upturn – in the Baltics the average y-o-y growth reached almost two-digit values and in less successful countries (Italy, Portugal) the growth-rate of GDP approached the level of the whole EU in 2001–2003. The last period (2009–2013) is linked with dragging economic recession which in all countries (save for Poland) in 2009 showed a deep y-o-y drop of real GDP, humble growth in the following two years and return to more shallow economic drop in 2012–2013 (which affected almost half of the EU countries).

Relationship between the balance of the government sector (deficit/surplus) and economic growth was in all EU27 countries weak and mainly in the first two assessed periods. However, there were marked differences between "new" countries joining the EU after 2000 compared to the "traditional" Union countries. Majority of these new countries showed significantly better results in the y-o-y growth-rate of GDP compared to the whole EU, yet, concurrently, they had (as a potential members of the Eurozone) problems with the performance of the Maastricht criterion specifying the government deficit. This discrepancy showed in all periods, most obviously in Poland and Slovakia (see Table 1). Similar discrepancy showed Latvia and Lithuania, which reached in the first two periods only shallow budget deficits, however, they belonged to the Union economies reporting the fastest growth.

By contrast, Austria, the Benelux countries and mainly the Northern countries did not have (until the outbreak of global recession) any significant problems with its government deficits and assessed by their amounts within all EU countries markedly better ranking then by the y-o-y growth rate of GDP. This group of countries can be enlarged by Estonia, which kept the step with the Baltics in terms of dynamic economic growth, but in terms of slight government surplus (net lending) resembled the Scandinavian countries. Greece holds an eccentric position among the Eurozone countries. Since its joining this formation it continuously fails to fulfil the 3% criterion of the government deficit and on the long-term basis it belonged (along with Portugal) to the Eurozone countries showing the worst performance of government sector. At the same time, Greece in 2001–2009 reported lower growth-rate of GDP (than in the whole EU) only once.

The position of Croatia, as "freshest" member of the EU, largely mirrored the position of the neighboring Slovenia. In both periods (2001–2003, respectively 2004–2008) to Croatia had relatively strong economic growth (average annual GDP growth exceeded 4.0%). The favorable development was fundamentally undermined by deep recession (GDP in 2009 fell by almost 7%), since the annual growth of the Croatian economy has not even returned yet (e.g. –2% in 2012). The recession also resulted in deep government sector deficit (annual average for 2009–2012: –6% of GDP), which was reduced very slowly (in 2012 reached –5% of GDP). Susequent striking increase in governemt debt (37% of GDP at the end of 2009 to 56% of GDP three years later) ranked Croatia as the forth (following Hungary, Cyprus and Malta) most indebted new EU member (among countries joining EU after 2000).

Relationship between the government deficits and the increase of their debts was, by contrast, relatively strong, especially in the last assessed period when government revenues as well as expenditures in majority of the EU countries were affected by recession. Between 2008 and 2013 the government debt increased most in Ireland (from 44% of GDP up to 124% of GDP) which in this five-year period recorded profound government deficits (on average almost 15% of GDP). Similarly did also majority of South European countries and the Great Britain. Due to high deficits (–4.6 to –7.5 %) the total indebtedness has sharply increased also in some countries of Central and Eastern Europe (Slovenia, Slovakia, Romania, Latvia and Lithuania) which earlier recorded minimum debts, however, by the end of 2012 they still met the Maastricht debt criterion (except for Slovenia, that witnessed in 2013 the highest government deficits in the whole EU).

Table 1 Relationship between government deficit (surplus), debt and the development of economy in different periods after 2000

	2001–2003 (annual average)				2003 (end of the year)		2004–2008 (annual average)				2008 (end of the year)		2009–2013 (annual average)				2013 (end of the year)	
	y-o-y change of real GDP		Net lending (+) / net borrowing (−)		Total government debt		y-o-y change of real GDP		Net lending (+) / net borrowing (−)		Total government debt		y-o-y change of real GDP		Net lending (+) / net borrowing (−)		Total government debt	
	%	ranking	% GDP	ranking	% GDP	ranking	%	ranking	% GDP	ranking	% GDP	ranking	%	ranking	% GDP	ranking	% GDP	ranking
EU27	1.6	x	−2.4	x	61.9	x	2.4	x	−2.0	x	62.2	x	−0.2	x	−5.0	x	87.4	x
Eurozone(17)	1.2	x	−2.6	x	69.2	x	2.1	x	−1.9	x	70.2	x	−0.4	x	−4.7	x	92.7	x
Belgium	1.0	22	0.1	6	98.4	2	2.3	22	−0.7	10	89.2	3	0.3	8	−4.0	13	101.5	6
Bulgaria	4.8	5	−0.2	7	44.4	17	6.4	5	1.5	4	13.7	25	−0.4	14	−2.3	8	18.9	26
Czech Repub.	3.0	12	−6.3	25	28.6	21	5.5	7	−2.3	17	28.7	19	−0.4	15	−3.9	11	46.0	19
Denmark	0.5	26	0.7	3	47.2	14	1.8	25	4.1	1	33.4	18	−0.6	16	−2.3	7	44.5	20
Germany	0.4	27	−3.7	19	64.4	7	2.0	23	−1.7	15	66.8	7	0.7	6	−1.6	4	78.4	11
Estonia	6.8	3	0.6	4	5.6	27	5.7	6	1.0	6	4.5	27	0.9	5	−0.2	1	10.0	27
Ireland	4.7	6	0.3	5	31.0	20	3.7	12	−0.3	9	44.2	14	−1.1	21	−14.6	27	123.7	4
Greece	4.5	7	−5.0	22	97.4	3	3.1	14	−6.9	27	112.9	1	−5.2	27	−11.6	26	175.1	1
Spain	3.2	11	−0.4	9	48.8	13	3.1	15	0.2	7	40.2	15	−1.3	22	−9.6	25	93.9	7
France	1.2	19	−2.9	16	62.9	8	1.8	24	−3.0	20	68.2	6	0.2	10	−5.8	20	93.5	8
Italy	0.8	23	−3.3	18	104.1	1	1.1	27	−3.1	21	106.1	2	−1.5	24	−3.9	12	132.6	2
Cyprus	2.7	15	−4.4	21	69.7	4	4.2	10	−0.7	10	48.9	12	−1.6	25	−5.9	21	111.7	5
Latvia	7.4	2	−2.0	13	14.7	25	7.4	1	−1.4	14	19.8	22	−0.9	18	−4.6	15	38.1	24
Lithuania	7.9	1	−2.2	14	21.0	24	7.1	3	−1.3	12	15.5	23	0.0	11	−5.5	17	39.4	22
Luxembourg	2.8	14	2.9	2	6.2	26	4.1	11	1.4	5	14.4	24	0.3	9	-0.2	2	23.1	25

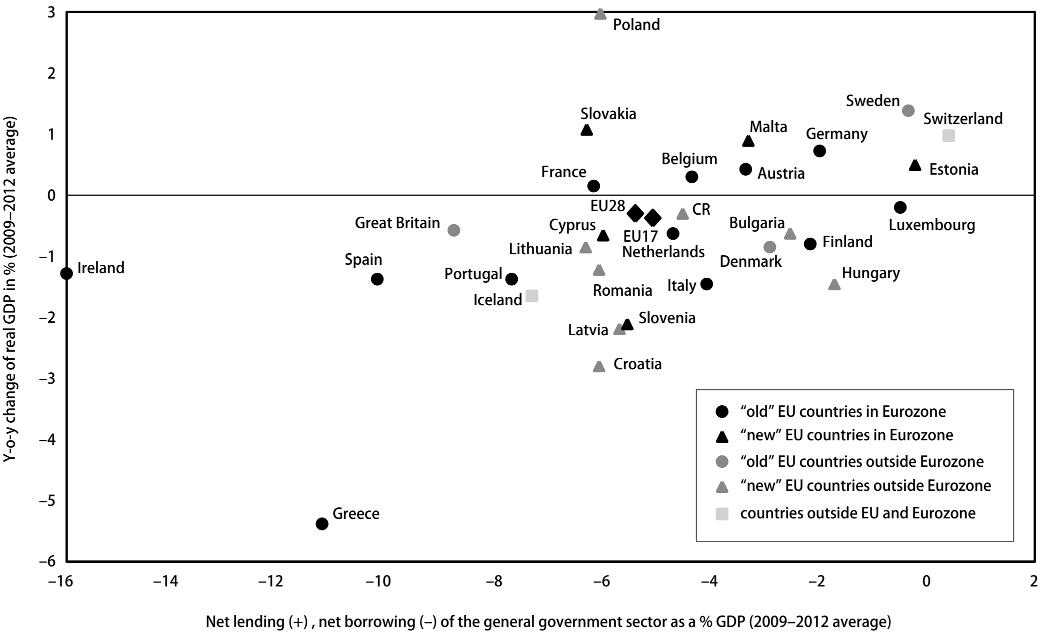
Note: Membership of countries in economic formations (EU, Eurozone) was in all periods assessed by the condition at the end of 2012.
Source: Eurostat

Table 1 Relationship between government deficit (surplus), debt and the development of economy in different periods after 2000 – continuation

	2001–2003 (annual average)				2003 (end of the year)		2004–2008 (annual average)				2008 (end of the year)		2009–2013 (annual average)				2013 (end of the year)	
	y-o-y change of real GDP		Net lending (+) / net borrowing (−)		Total government debt		y-o-y change of real GDP		Net lending (+) / net borrowing (−)		Total government debt		y-o-y change of real GDP		Net lending (+) / net borrowing (−)		Total government debt	
	%	ranking	% GDP	ranking	% GDP	ranking	%	ranking	% GDP	ranking	% GDP	ranking	%	ranking	% GDP	ranking	% GDP	ranking
Hungary	4.0	9	−6.8	26	58.6	10	2.7	19	−6.5	26	73.0	4	−0.9	19	−1.8	5	79.2	10
Malta	1.0	21	−7.0	27	66.0	5	2.8	17	−3.4	22	60.9	9	1.4	3	−3.2	10	73.0	14
Netherlands	0.8	24	−1.8	12	52.0	11	2.7	20	−0.2	8	58.5	10	−0.7	17	−4.3	14	73.5	13
Austria	1.2	20	−0.7	10	65.3	6	2.8	18	−1.9	16	63.8	8	0.4	7	−3.0	9	74.5	12
Poland	2.2	16	−5.5	23	47.1	15	5.4	8	−3.7	24	47.1	13	2.7	1	−5.7	19	57.0	16
Portugal	0.6	25	−4.0	20	59.4	9	1.2	26	−4.4	25	71.7	5	−1.4	23	−7.1	22	129.0	3
Romania	5.3	4	−2.3	15	21.5	23	6.8	4	−2.6	19	13.4	26	-0.3	13	−5.3	16	38.4	23
Slovenia	3.2	10	−3.0	17	27.2	22	4.9	9	−1.4	13	22.0	21	−1.9	26	−7.5	23	71.7	15
Slovakia	4.3	8	−5.8	24	42.4	18	7.3	2	−2.5	18	27.9	20	1.0	4	−5.5	18	55.4	18
Finland	2.0	17	4.0	1	44.5	16	3.4	13	3.9	2	33.9	17	−0.9	19	−1.9	6	57.0	16
Sweden	2.0	17	−0.3	8	51.7	12	2.9	16	2.2	3	38.8	16	1.4	2	−0.4	3	40.6	21
Great Britain	2.8	13	−1.7	11	38.7	19	2.4	21	−3.5	23	51.9	11	−0.1	12	−8.2	24	90.6	9

Note: Membership of countries in economic formations (EU, Eurozone) was in all periods assessed by the condition at the end of 2012.
Source: Eurostat

Figure 4 Net lending (+) / net borrowing (–) of the general government sector and y-o-y dynamics of real GDP (selected European countries, average for the years 2009–2012*



* For Switzerland the period 2009–2011.
Source: Eurostat

The growth of the government debt is not only the result of cumulated deficits from previous periods although they usually form its decisive part. During the economic boom (2004–2007) most of countries managed to reduce its government debt (it stagnated in the CR) and in spite of moderate government deficits, Northern countries and also Spain then managed to squeeze them more markedly showing budget surpluses. Some countries managed to reduce their indebtedness even when they showed government deficits also in periods of humble economic growth (2001–2003). It was mainly due to high repayments of previous loans (share of paid up credits in total expenditures of the government sector was about 15% e.g. in Greece, Italy, Belgium; two-digit value were approached also in the Balkans or in Slovakia).

Despite the relationship between dynamics of total GDP growth and government deficit (surplus) was not any significant in the EU countries on the long-term basis, the year 2009 brought a change. A deep y-o-y drop of total economic performance has quickly weaken (in absolute terms) mainly government revenues so in 2009 ended up in majority of the EU countries in profound deficits.

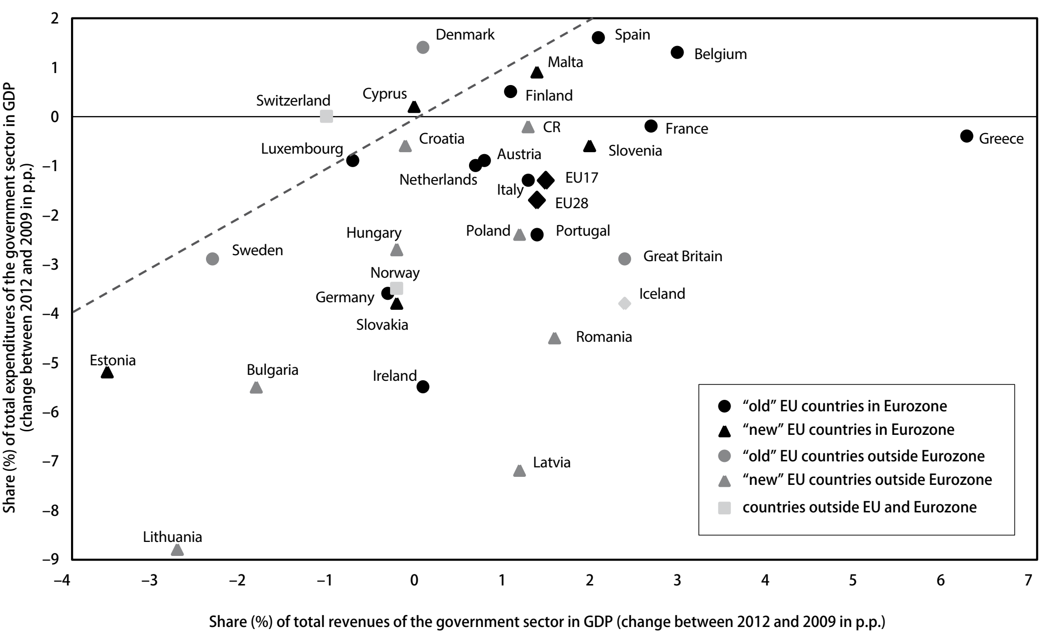
An example of last economic recession (2009–12) may show relationship between the GDP dynamics and deficits of the government sector (correlation coefficient in all EU countries made +0.42). Only two countries make an exception: Ireland (showing deep deficits and relatively small drop of economy) and Poland which has avoided recession as the only one of the Union countries, however, its government deficits belonged (not only in this period) to the biggest within the EU. Having excluded Poland and Ireland the closeness of relationship expressed by the correlation coefficient has increased (up to +0,59). The Czech Republic did not show significant difference compared with the level of the whole EU (or the Eurozone) in this period in terms of its government deficits and real drop of economic performance (see Figure 4).

3 SIZE OF GOVERNMENT SECTOR FROM THE ASPECT OF REVENUES AND EXPENDUTURES IN RELATION TO GDP

Majority of the European Union countries responded in the last years to significant deficits of their public budgets by measures combining the increase of revenues and squeezing of government expenditures. In the whole EU between 2009 and 2012 the share of total revenues of government institutions in the GDP grew from 44.1% to 45.4% (reaching the level in 2000). The share of total government expenditures in the same period dropped by almost by 2 p.p. down to 49.3% of GDP. The relation of expenditures, however, in 2012 was in majority of "new" member countries (save for Slovakia, the Balkans and the Baltics) and practically in all "ancient" members of the EU (save for Sweden) significantly above the level relevant at the beginning of millennium when total government expenditures in the Union did not reach even 45% of GDP. The growth rate of government expenditures advancing the growth of GDP was for majority of EU countries after 2000 a characteristic feature. This discrepancy became stronger when a sharp drop of economy in 2009 took place, which was also due to an increased need for social transfers (also due to rapidly growing unemployment).

As late as in the following years when in majority of counties a moderate economic growth was restored, the government sector applied more tangible cut of its expenditures. This took place sometimes also under the pressure of international institutions, mainly in the most indebted members of the Eurozone which were provided financial aid. Between the years 2009 and 2012 the share of total government expenditures in the GDP was falling most in the Baltics and in Ireland (see Figure 5). At the same period in Portugal and Greece the government expenditures dropped also in absolute terms (the cut of expense was, however, partly or almost completely overshadowed by more marked drop of the GDP). In the last four years

Figure 5 Change of total revenues and expenditures of government sector in relation to GDP (selected European countries, difference between 2012 and 2009 in p.p.*



* For Switzerland the comparison refers to the years 2009 and 2011.
Source: Eurostat

almost all countries of the EU showing different relative dynamics of total government revenues and expenditures reached smaller deficits (e.g. countries located below the diagonal in Figure 5). The only EU country which in 2012 reported (compared to 2009) bigger deficit of the government sector, was Denmark which, however, as one a few countries met in 2009–2011 the Maastricht criterion for deficits.

Among the European countries still survive marked differences in relative size of government expenditures. While in Denmark the total expenditures of the government sector reached in 2012 almost 60% of GDP, in Bulgaria they only moderately exceeded one third. Similar discrepancies may be found among the EU countries also at the beginning of the previous decade. Above the average relative expenditures are traditionally maintained by Northern countries, France, Belgium, Austria and from among "poorer" members of the Eurozone by Greece and Italy. "New" Union countries show, by contrast, lower share of government expenditures, only the governments of Hungary and Slovenia spend, in relation to the whole economic performance, similar amounts as was the average of the EU countries. Of the leading economies of the Eurozone lower expenditures were maintained by Germany, on the long-term basis (permanently near to 45%). By contrast, Spain and Great Britain, whose government expenditures at the beginning of the millennium did not reach even 40% of GDP, have markedly increased their relative expenditures and in 2012 already approached the average of the Eurozone countries.

Ireland has undergone an interesting development, At the period of strong economic growth in 2000–2006 it showed the lowest government expenditures (31–34% of GDP) of all the Eurozone countries. When being hit by deep financial crisis, expenditures rapidly increased in 2010 (up to 66% of GDP) as well as the deficit of the whole government sector (up to historic value in the whole period of functioning of the Eurozone: –31% of GDP). Two years later, at a moderate y-o-y economic growth and still strong government deficit (–8% GDP) these expenditures sharply dropped down to 43% of GDP (after Slovakia and Estonia this referred to the lowest value of the Eurozone countries).

If we omit the year 2003, the expenditures of the government sector in CR were long below the level of the whole EU and save for Slovakia they were the lowest of the whole Centre European region. The CR, however, belonged to a few countries, which between the years 2009 and 2012 practically did not reduce their share of their government expenditures in GDP. The Czech government sector, in terms of relative government expenditures and their long-term dynamics, is approaching to the position of Poland and Germany.

4 LONG-TERM DEVELOPMENT OF THE STRUCTURE OF REVENUES AND EXPENDITURES OF THE GOVERNMENT SECTOR

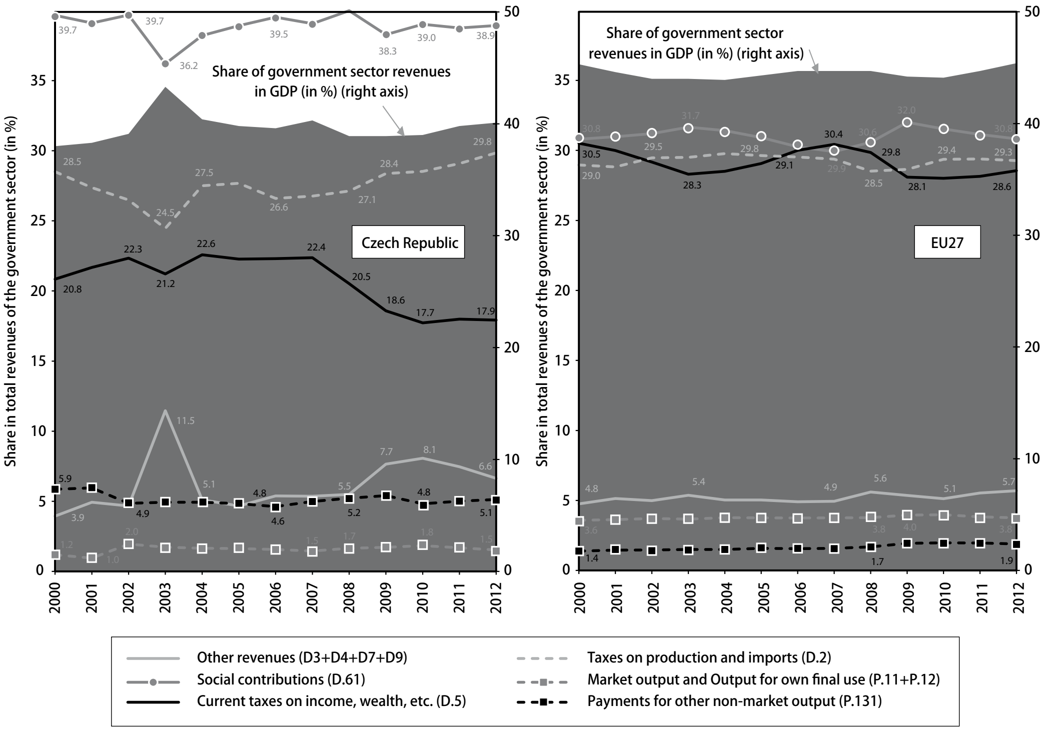
Changes in total revenues and expenditures of the government sector may be attributed to opposite- direction trends in the development of partial but important items of revenues and expenditures. More detailed view into the structure of revenues and expenditures of the government institutions is necessary in order to decode them.

4.1 Structure of revenues

In the CR like in other EU countries the key part of government revenues are mandatory payments. This refers to a group of taxes (taxes on production and imports, current and capital taxes) and social contributions (working people and the unemployed in the benefit of social benefits providers). Within the whole EU the share of three most important items of mandatory payments in total government revenues is long-term balanced (see Figure 6). Like in Slovakia, Germany or France, in the CR the decisive parts of revenues of the government sector is represented by social contributions (D.61). Their share was in 2012 in the CR the biggest (followed by Germany and France) of all EU countries.

Like in the overwhelming majority of new member EU countries in the Czech government revenues lower weight was assigned to direct taxes (from physical persons and legal entities, tax on interest), more markedly were represented revenues from EU (in Figure 6 included in "other revenues"). Less important in the CR was, by contrast, market production of the government institutions (including

Figure 6 Long-term development of the structure of revenues of the government sector and share of total revenues in GDP (comparison of CR and EU27)



Note: *Payments for non-market output (P131)* comprise payments for providing of services and products such as school fees, administrative and court fees, waste deposition charges or fees for use of public areas, etc., which are provided at economically insignificant prices (when less then 50% of the production costs is covered by sales). *Other revenues* include property income (especially interest, dividends and shares in profit, rents on land), subsidies receivable, other received current transfers (e.g. means obtained within international development projects, income from sanctions and penalties) and income capital transfers (e.g. collected inheritance and gift taxes, investment subsidies from the EU institutions).
Source: Eurostat

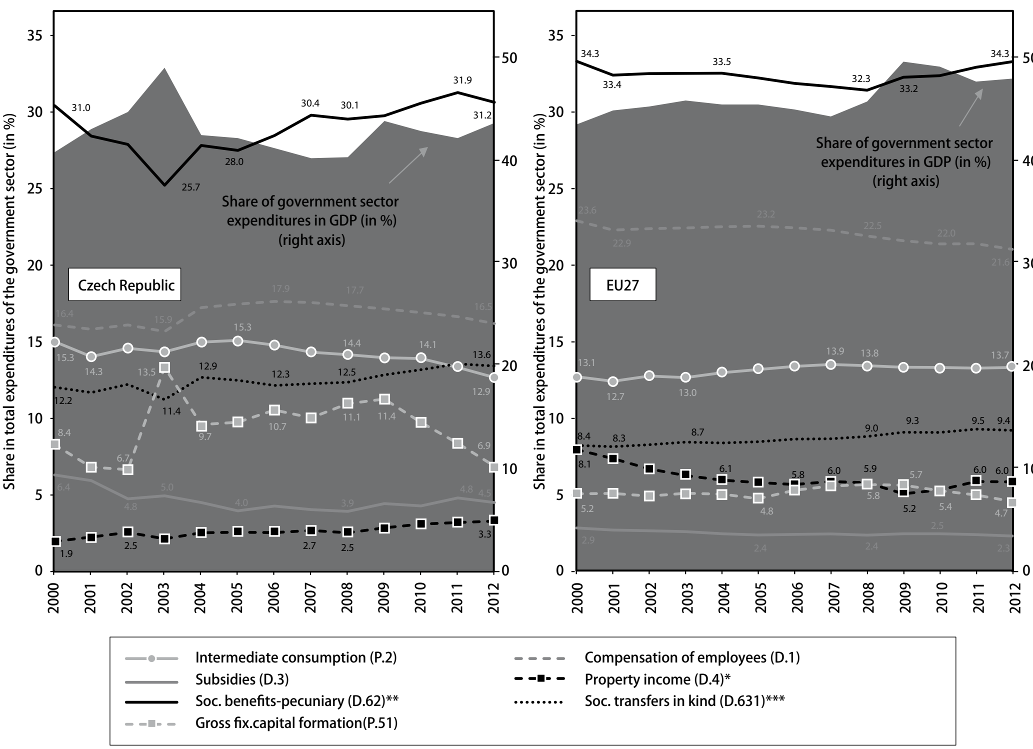
e.g. revenues of the government sector from transport services or waste treatment), its share in total revenues of the government sector reaches, compared to the EU countries, a half level.

At the period of recession in the revenues of CR government sector (contrary to EU) a marked drop of direct taxes took place in favour of indirect ones (VAT, excise taxes). This was due to a different approach to the tax rate adjustment (the CR like majority of new Union countries between 2008 and 2012 did not increase the direct tax rates). Both indirect taxes and revenues from the EU budget helped mitigate of the government deficits in the last 2–3 years. The size of the government sector measured by the share of its revenues in GDP in CR was long below the EU level. Mild increase in the share of total revenues in both CR and EU was connected in the last years with the above effects.

4.2 Structure of expenditures

Differences between the CR and the EU countries are obvious for a long time also in the structure of the government sector expenditures. In all the EU countries pecuniary social benefits dominate (mainly expenditures on old-age pension, sickness benefits, unemployment benefits and state social

Figure 7 Long-term development of the structure of the government sector expenditures and the share of total expenditures of governments in the GDP (comparison between the CR and EU27) (selected main items)



* *Property* income payable include mainly instalments of interest of the government sector debt.

** *Social benefits other than social transfers in kind* consist of social benefits in cash provided under social insurance schemes and social assistance benefits in cash, provided by the government units to households out of the social insurance schemes.

*** *Social transfers in kind* = expenditure on products supplied to households via market producers.

Source: Eurostat

support) which, in respect of high mandatory social deliveries, is not surprising. The share of these benefits, i.e. social benefits (other than social transfers in kind) in the structure of the government sector expenditures in the CR is growing on the long-term basis, however, also in 2012, it was below the EU level (see Figure 4). Almost two fifths of government expenditures were allocated in 2012 to pecuniary social benefits in Italy or Portugal, by contrast, in the Netherlands or in Latvia, only one fifth.

An important section of social transfers is divided also in form of in-kind social transfers (their size is estimated on the basis of an amount paid out by health insurance companies to medical facilities for services provided to households.) Social in-kind transfers traditionally represent a higher proportion of total government expenditures in the CR than in the whole EU. The biggest weight is attributed to these expenditures in Germany and the Benelux countries.

Another important item is represented by the "operating" expenditures of the government sector which contributes by almost one third to the total government expenditures in majority of the EU countries. They cover the intermediate consumption and employees compensations (all costs of the government sector on its employees). While the share of intermediate consumption in the government expenditures in the

CR until 2010 has been maintained slightly above the level of EU countries, in case of employees compensations the weight of these expenditures for the CR in 2012 in all the EU countries was the lowest (near the Czech level were all our neighbours save for Poland). Out of other items of expenditures of the government sector in the CR it should be mentioned a relatively high share of investment (gross fixed capital formation) and also higher weight of subsidies. By contrast, relatively low were, compared with the EU (despite long-term growing weight) expenditures on repayments of the government debt interest. In the period of economic recession both in the CR and EU the share of pecuniary and also in-kind social benefits was growing (among other things, also due to the growing unemployment). The government sector, by contrast, was reducing the weight of the operating expenditures and investment. In the CR between 2009 and 2012 a sharp drop of the share of investment expenditures took place (also due to their high weight in previous years). In the CR, the weight of the operating expenditures of the government sector was more reduced in form of intermediate consumption, in the EU countries, by contrast, the share of employees' compensations was falling (by cutting salaries and reducing positions in the government sector).

The structure of the government sector expenditures showed certain changes as time passed. In economically relative favourable period between 2000 and 2008 the reduction of share of the government debt repayments took place across all EU27 countries (mainly in the South European countries, Romania or Denmark). The CR was, in this respect, an exception, the share of paid out property income in the total government expenditures increased from 1.9% to 2.5% and an item which the governments reduced most, were subsidies. The government expenditures in this period, by contrast, preferred more investment expenditures and especially in countries which joined the EU after 2000 (mainly in the Baltics and Balkan countries). E.g. in Romania the share of gross fixed capital formation expenditures in total expenditures of the government sector increased between 2000 and 2008 from 9% up to almost 17% (in the CR from 8.4% to 11.1%) In some countries the share of expenditures on social benefits grew most rapidly be it pecuniary (i.e. D.62: Hungary, Ireland, Portugal, Cyprus) or in kind benefits (i.e. D.631: Greece, the Netherlands, Slovakia). Five countries then showed the biggest changes in the expenditure on intermediate consumption of the government sector.

In 2009, when the public budgets were most markedly affected by deep economic recession, across all member EU countries the share of expenditures on social benefits increased. In two thirds of member countries the relatively most dynamic item were pecuniary social benefits (D.62), the most obvious was their growth in the Baltics (e.g. in Latvia it grew from 21% in 2008 up to almost 29% a year later; in the CR their share in all government expenditures remained constant, closely above 30%). More intensive need for social benefit expenditures was narrowly linked with the impacts of economic crisis on the labour market and, consequently, on the income of households. In 2009, the government sector, by contrast, reduced the share of investment expenditures (mainly so far generously investing new member countries, but also Ireland or Greece) but also the operating costs of the government sector (mainly Latvia and Bulgaria). Some big economies (Germany, France, Italy) supported their budgets by reducing the share of expenditures on the government debt repayments.

Between the years 2009 and 2012 the efforts in the whole EU to consolidate government deficits by reducing relative weights of expenditures both on the operation of the government sector, and the investment, continued. Operating costs were reduced more often by cutting the compensations of employees in the government sector, in ten EU countries (incl. CR and Slovakia), however, by reducing the weight of expenditures on intermediate consumption. This group may include Greece where the share of expenditures on intermediate consumption of the government sector between 2009 and 2012 dropped from 13.7% to 8.9%, in case of the employees costs in this sector the reduction of their weight was more moderate – from 24.9% to 22.8%. The decrease of weight of intermediate consumption expenditures as well as the reduction of the expenditures on the government sector employees was between the years 2009 and 2012 obvious almost in half of the EU countries. Two thirds of the Union members in this period reduced also the share of the investment expenditures, most in Spain (from 9.6% to 3.7%) and in CR (from 11.4% down to 6.9%). Finally, one third of the EU countries reduced in this period their share of expenditures on pecuniary social benefits (D.62), however, in most cases it referred to relatively moderate reductions and save for Germany, it referred rather to small-scale economies. If we include also the year 2008 (where already the first effects of the crisis on the labour marked appeared) then between 2008 and 2012 the share of pecuniary social benefits in total expenditures of the government sector dropped only in four countries (Germany, Sweden, Luxembourg and Hungary – in all cases by less the 1 p.p.) and by more than 5 p.p. the share increased, by contrast, in Latvia, Ireland and Bulgaria and from countries outside EU also in Iceland (+6.6 p.p.).

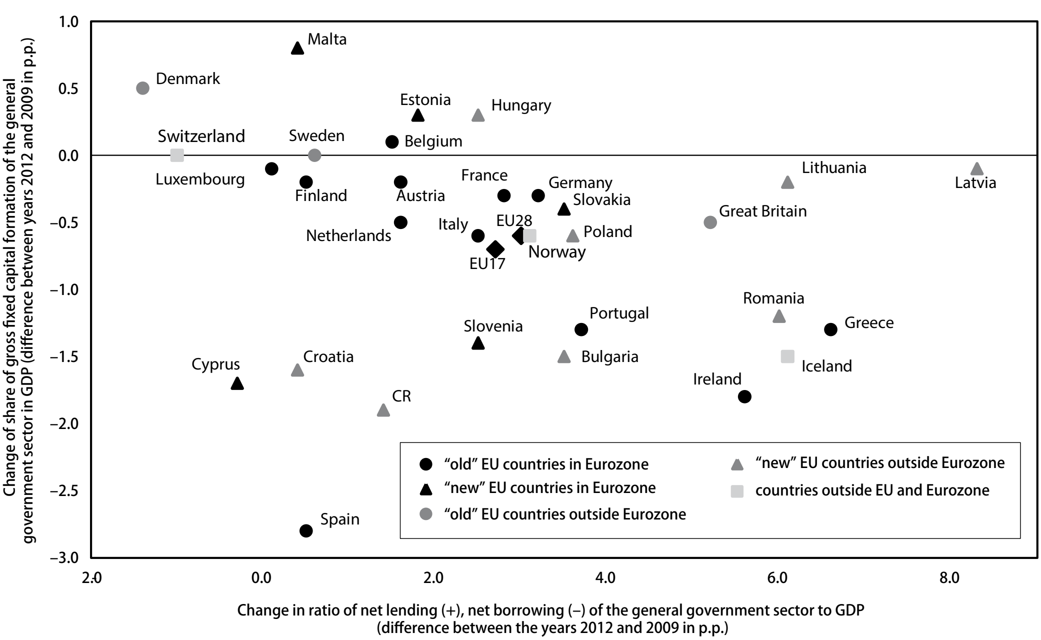
5 DYNAMICS OF MOST SIGNIFICANT ITEMS OF EXPENDITURE OF THE GOVERNMENT SECTOR IN THE PERIOD OF BUDGETARY CONSOLIDATION

From the shock, which suffered government sector in 2009, individual European countries in the following years have been gradually recovering. Except for Denmark and Cyprus all EU member countries managed between 2009 and 2012 to reduce government deficits (in relation to GDP). Let us examine how the most important groups of expenditure items contributed to fiscal consolidation in individual countries.

5.1 Gross fixed capital formation

One of possibilities to alleviate the government deficits at the period of recession is the reduction of investment expenditures (gross fixed capital formation). This form has been chosen by many member countries, which is attested by the fact that countries which (between the years 2009 and 2012) managed to most tame their deficits simultaneously reduced their investment (in relation to GDP). This referred to both

Figure 8 Development of deficit (surplus) of the government sector in relation to GDP and change of share of government investment expenditures in GDP in the period of recession (selected European countries, difference between the years 2012 and 2009 in p.p.*



* For Switzerland comparison refers to the years 2009 and 2011.
Note: Membership of countries in economic formations (EU, Eurozone) was assessed by the condition at the end of 2013.
Source: Eurostat

countries coping with deep debt crisis (Greece, Portugal, Island) and so far relatively less indebted Balkan countries (see Figure 8). This relationship, however, is not direct since e.g. the Baltics have significantly cut their high deficits at the beginning of crisis without any marked reduction of relative volume of their investment. Another example may serve some small open economies strongly hit by crisis (Cyprus, partly also Slovenia) which in spite of strong reduction of investment expenditures did not significantly reduce their deficits between the years 2009 and 2012.

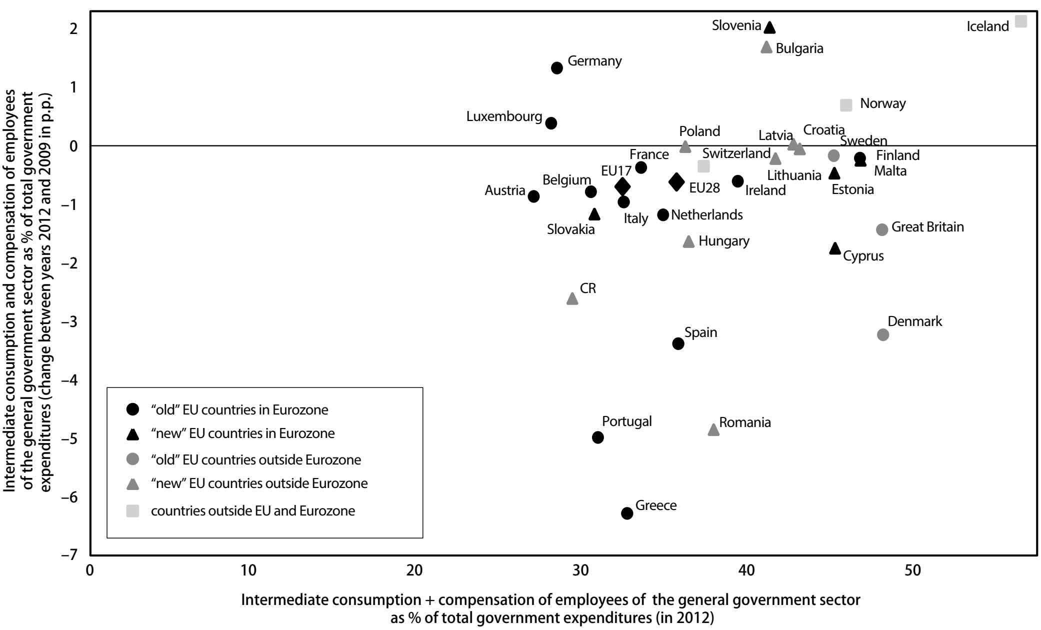
The options for short-term reduction of investment to directly mitigate the government deficits depend on total size of previous government investment. On the long-time basis mainly new member EU countries show high investment of government sector to GDP which is due especially to lower level of their infrastructure (transport network, environment) as well as investment stimulation by the EU policies. As other EU members concerned the higher government investment (above 3% of GDP) is traditionally reported by the Netherlands and Sweden. In spite of strong cuts in investment expenditures of the Czech government sector (as late as in 2009 the share of the gross fixed capital formation in total GDP by 5.1%, which was the third biggest value recorded in EU) the relative scope of government investment remained still significantly above both EU and Eurozone level.

5.2 Intermediate consumption and compensations of employees

Another way how the government institutions may relatively fast diminish their deficits is the rationalization of "operating" costs of the government sector. These expenditures may be very roughly expressed as the sum of intermediate consumption and costs per employee in the government sector (expressed in form of employee compensations).

Expenditures on "operation" of the government sector cut off in 2012 in the whole EU 35% from government expenditures. This share is long stable, however, significant differences between individual countries survive – big share is specific for Northern countries and the Great Britain, and also for

Figure 9 Share of expenditures on the government sector "operation" in 2012 and its change (selected European countries, condition as of 2012 and differences between the years 2012 and 2009 in p.p.*



* For Switzerland the comparison refers to years 2009 and 2011.
Source: Eurostat

the Baltics if considering new member countries. Disparities across the EU countries can be attributed to the preference of another (often more important in terms of weights) items of government expenditures – mainly social benefits and transfers, then subsidies and the above mentioned investment.

The upcoming recession since 2008 has started up in majority of countries the process of gradual reduction of the share of "operating" expenditures. It happened so in the CR two years earlier. The share of operating costs of the Czech government sector in total expenditures has been continuously falling down to current level (approaching the current level in Germany –30%). Countries coping with deep government deficits and high indebtedness (e.g. Greece, Portugal) were forced to make radical reduction of "operating" expenditures of their government sector (see Figure 9). Certain deviation is represented here by Denmark, which was motivated rather by both high share of "operating" expenditures (in 2009 they made 51% of total government expenditures which was the biggest within the EU) and limited options for speedy reduction of other expense items (e.g. investment expenditures of the government sector was on the long-term basis below 2% of GDP). Germany as the only one of leading EU economies in the last three years reported a slight increase of the operating expenditure of the government sector. This was made possible, among other things, by relatively low share of operating expenditures, lower government deficit and the efforts to maintain the low level of unemployment (in the European context). On the other hand some countries reduced more markedly the share of their expenditures on the operation of government sector as soon as in 2009 (the Baltics, Bulgaria).

5.3 Social benefits (other than social transfers in kind)

These social benefits (D.62) represent the most important expenditure items of the government institutions almost in all the EU (except for relatively small countries – Malta, Cyprus and Denmark). In this respect, from purely statistical aspect, the biggest potential for fiscal consolidation lies in this expenditure. In real economy this potential is, however, significantly reduced and mainly in the short-term period since a big part of these expenditures is of mandatory character. In addition, these expenditures are affected by the situation in the labour market which was within the last five years in the EU hit by sharp growth of unemployment up to so far unprecedented maximum (11% – in the half of 2013).

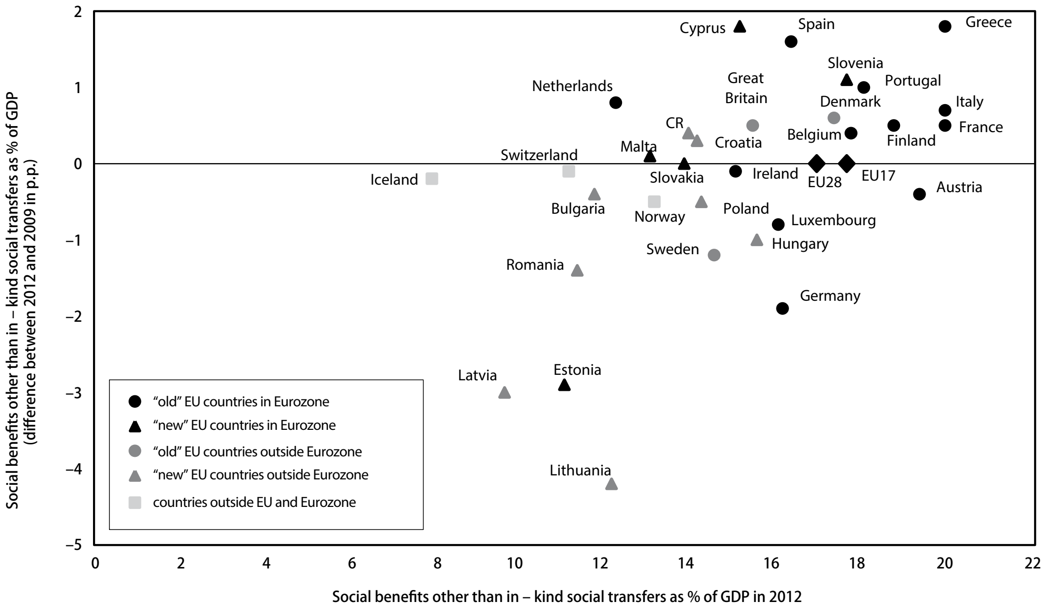
Among the European countries significant differences between the share of these social benefits in GDP persist (in South European countries it almost doubled in 2012 compared to the Baltics or most of Balkan countries). Between the years 2009 and 2012 half of the EU countries recorded an increase of this share (see Figure 10). Reduction thereof was obvious both in the countries in which the negative consequences of recession (e.g. unemployment) showed immediately mainly in 2008–9 and in the subsequent years the labour marked was sufficiently stabilized (the Baltics, Iceland) and in countries whose labour market was not so negatively affected by the recession (Germany, Austria and some of the Northern states). Although the volume of paid out social benefits in relation to GDP (or to the total government expenditures) in the last three year in EU as a whole did not fall, in this period two thirds of the member countries recorded a slight growth of percentage of people at risk of poverty or social exclusion (even after the social transfers) – particularly in South European countries and the Balkans.

5.4 Paid up government debt interest

Depth of government deficit is affected also by costs of the debt service. This refers mainly to interest on issued government sector debt securities. Its amount reflects both the volume and the level of interest of the earlier issued government bonds and its structure, e.g. from the aspect of maturity as well as rate of exchange impact.

She share of paid interest (D.41) in total EU government sector expenditures as a whole does not change significantly on the long-term basis – governments allocate about 6% of its expenditures to settle the debts. In Greece, Italy or Hungary for this purpose they allocate to settle the debts one tenth

Figure 10 Share of paid out social benefits* in GDP and its change (selected European countries, condition as of 2012 and differences between the years 2012 and 2009 in p.p.)*



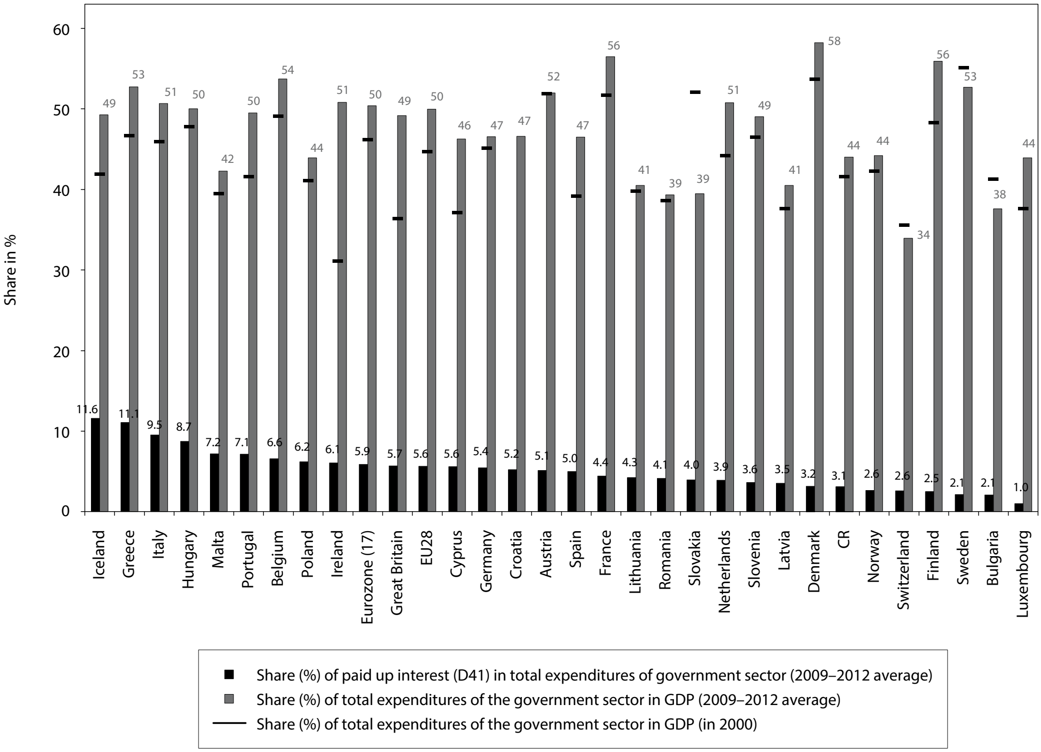
* Social benefits (other then in-kind social transfers) paid out by government institutions (ESA95 code D.62) represent transfers to households, pecuniary or in-kind, and designed to mitigate financial burden resulting from many risks or need (according to the Convention, this refers to the following: illness, disability and incapability, industrial injury, occupational disease, old-age, survivors, motherhood, family, employment promotion, unemployment, housing, general necessity).
Note: For Switzerland the comparison refers to the years 2009 and 2011.
Source: Eurostat

of their government expenditures, in Iceland even one eighth (see Figure 11). The Czech Republic belonged to a one third of the EU countries where the share (3%) of expenditures of this kind was the lowest and well corresponded with the ranking of the CR in total relative indebtedness. Between the years 2009 and 2012 the share of the government expenditures on interest increased in two thirds of the EU countries especially in Ireland (from 4.2% to 8.5%) and Portugal (from 5.7% to 9.3%). Among countries, which were not seriously hit by the debt crisis, this share markedly increased also in Great Britain where governments benefited from the good position of the country in the bond markets to cover deep government deficits (in 2009 and 2010 they oscillated between −10 to −11.5% of GDP).

One of the significant tools of the government debt management strategy are the government bond issues. The yields from long-term (ten years) bonds reflects the confidence of creditors into the respective country (prospective of economic growth, economic policy), however, it is also affected by interventions of important global institutions (e.g. European Central Bank).

After the out-break of deep economic recession in the latter half of 2008 in EU an obvious divergent tendencies in long-term government bond yields took place. While at the beginning of 2008 in more than two thirds of countries the yields of their long-term bonds moved in the narrow zone 4.0–4.5%, five years later in one fourth of countries these yields exceed 5%, however, the yields still did not reach the level of 2% in one third of EU countries. Recession also markedly shuffled positions of individual countries. Just before the out-break of recession the biggest yields were generated by Hungarian and Romanian government bonds (7%), these yields in the bond marked reflected the economic level

Figure 11 Paid-up debt interest * and total expenditures of the government sector and their relation to the GDP (selected European countries, annual average in the period 2009 and 2012, in %)

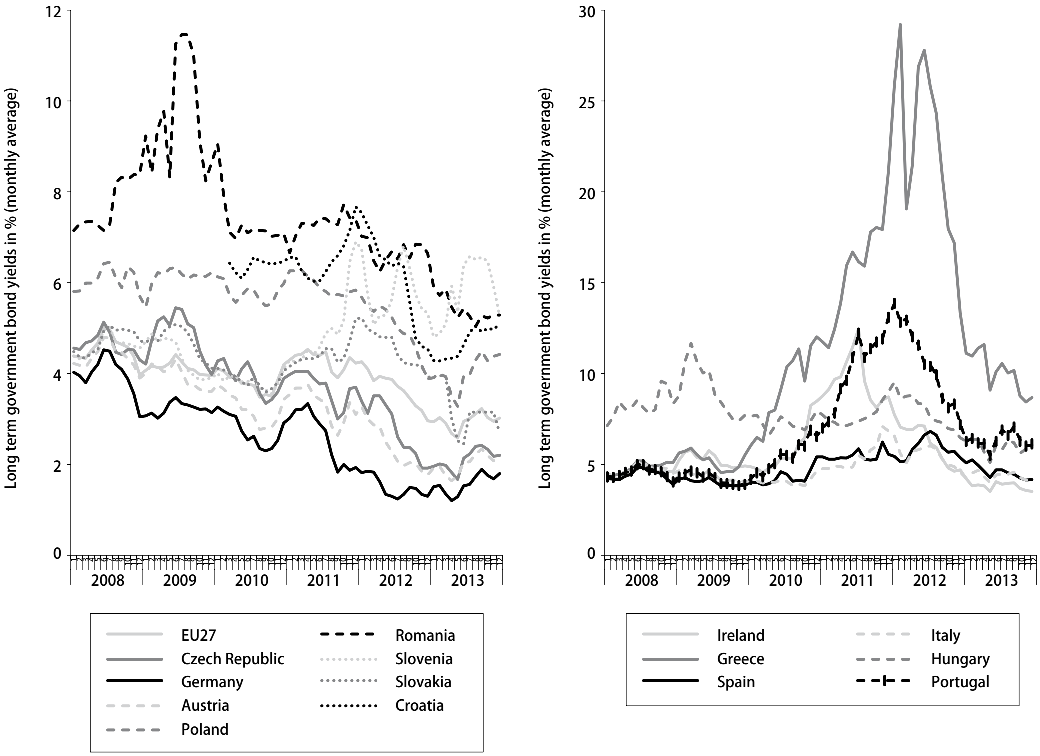


* Interest payable (D.41) covers interest on issued debt securities and on received loans and an estimate of interests on financial leasing. Interest resulting from swap arrangements and forward rate agreements is not included; they have been recorded as a financial transaction within financial derivatives (in compliance with EU regulation No 2558/2001).
Note: For Switzerland the period 2009−2011 is assessed.
Source: Eurostat

of the respective countries (expressed e.g. by GDP per capita in PPS). While the position of Hungary and Rumania did not show much improvement during the last years, majority of other younger member countries of the Union managed to gradually issue their bonds with lower interest rates (especially the Baltics which implemented sharp cuts in government expenditures). The yields of the Czech government bonds copied (like in case of Slovakia) between the years 2008 and 2010 the level of the whole EU, then, however, Czech bonds followed (along with Austrian) the descending trend (to level below 2%) while Slovak bonds yields were obviously above the EU level and by the end of 2012 they ended up still slightly above 4% (see Figure 12). The effect of rapid economic growth in Slovakia (compared to the CR) was in the recent years overwhelmed by deeper government deficits and subsequently by higher dynamics of the government debt.

Since the latter half of 2012 it is possible to detect in the European bond market the signs of certain calming down which produced a gradual drop of long term government bond yields. This drop referred mainly to countries most threatened by further escalation of the debt crisis. An exception was Cyprus, hit by the bank crisis where the average long-term bond yields were for almost a year at 7%. Recent drop of yields affected also the Czech government bonds, which in March 2013 fell below the 2% limit (a year earlier they showed the yields over 3.5%). In other Union member countries a slight drop in yields in the last months did not occur in Germany, Sweden, Denmark and Great Britain – i.e. in countries

Figure 12 Long term government bond yields (Maastricht definitions)* in selected EU countries (monthly average, in %, not seasonally adjusted)



* Long-term government bonds yields refer to the yields of central government bonds in the secondary market, before taxation with the out standing maturity about 10 years. This definition is used in convergence criteria of Economic and Monetary Union for long-term interest rates The series are harmonised for all the Member States apart from Estonia.
Source: Eurostat

whose economies long cope with current recession (e.g. from the aspect of the labour market) relatively successfully and yields of their 10-year old bonds moved obviously below the level of the Czech bonds.

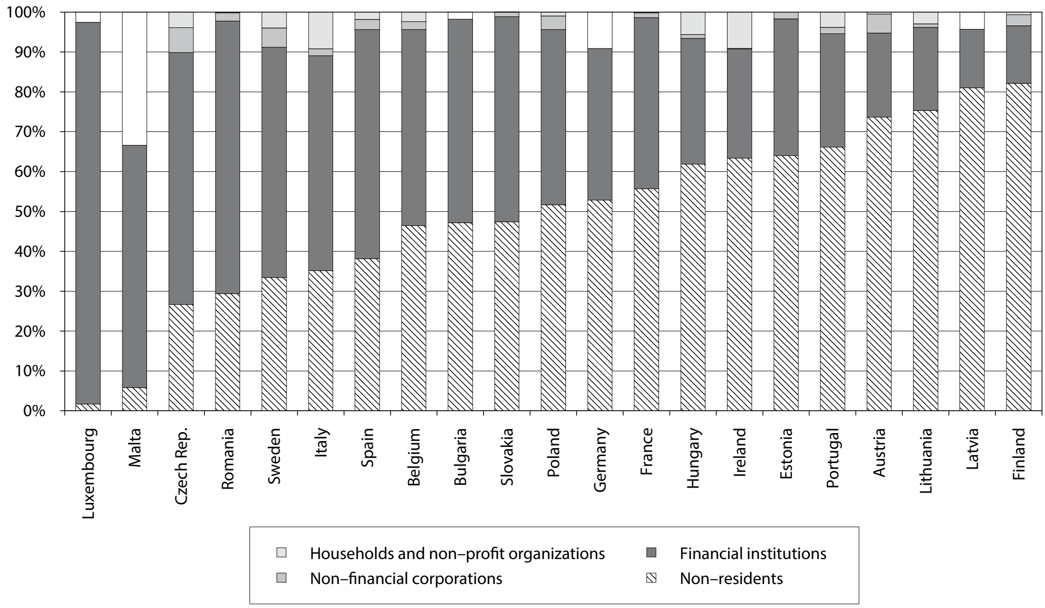
The amount of expenditures on the government debt interest is not lined only with the total level of indebtedness and position of individual countries in the bond markets. An important role is played also by the structure of the government debt – be it from the aspect of representation of different types of creditors, types of financial instruments covering the debt or debt rescheduling by maturity or by currency.

6 STRUCTURE OF THE GOVERNMENT SECTOR DEBT

The Czech Republic along with Slovakia belong to the half of the assessed countries within the EU where the main group of creditors of the government sector debt represent financial institutions (see Figure 13). These creditors dominate especially in small usually less indebted economies (e.g. Luxembourg, Malta). The second important group of creditors are the non-residents having an important position both in countries with high government debt (Hungary, Portugal) or low debt (the Baltics), they can also be found in "younger and "older" member countries.

On the basis of available data (21 EU countries) it can be stated that between the years 2005 and 2010 the share of non-resident creditors was gradually increasing, representation of other groups

Figure 13 Government debt structure by the type of creditor at the end of 2012



Note: For Bulgaria, Germany, Luxembourg, Latvia and Malta the summary for households, non-profit organizations and non-financial corporations is given.
Source: Eurostat

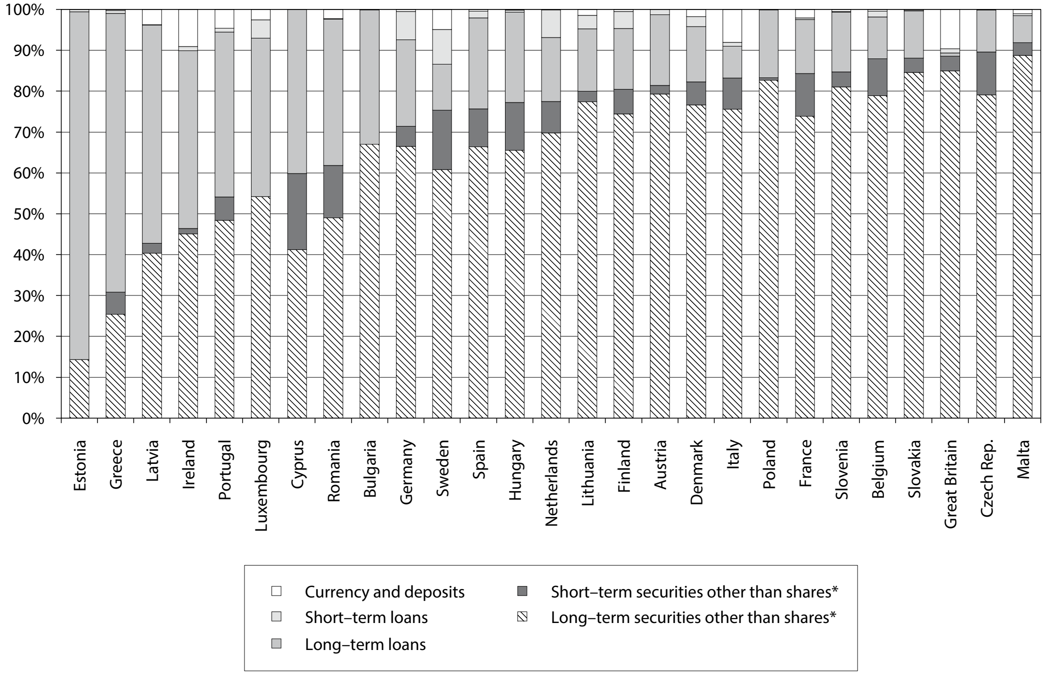
of creditors, by contrast, fell (households) or slightly fluctuated (other sectors). During 2011–2012 mainly in big economies (France, Italy, Spain) the position of non-residents (as creditors) slightly weakened in favour of financial institution. However, some in new EU members (Poland, Hungary, Slovakia and the Baltics) the share of government debt held by non-residents continue to strengthen.

In case of the Czech government sector debt the share of non-resident creditors was increasing faster (by the end of 2005 they "hold" one fourth of debt expressed in Euro, six years later more than one third), however, in 2012 their share dropped significantly (to levels 2008). On the other hand, position of non-financial corporation as well as households has been strengthened recently. In respect of so far last issue (November 2013) of state saving bonds it can be assumed that household share in possession of total government sector debt of the CR will approach to 5%.

Individual European countries differ also by kind of financial instruments, which they use to cover the government debt. In all the EU countries, however, at the end of 2012 dominated instruments of long-tem character (see Figure 14) – in overwhelming majority of cases it referred to securities, long-term loans prevailed in Greece, Estonia and Latvia). Structure of individual main financial instruments remains in long-term view in the whole EU and Eurozone relatively stable – almost four fifths of the government debt is financed by securities (with the exclusion of financial derivatives), one sixth by loans and during the last decade 3–5% was represented currency and deposits (which played more important role only in Italy, Great Britain and Ireland).

At the Czech government sector debt the importance of securities is growing, the share of debt financed by loans between the years 2000 and 2012 fell from one third to one tenth. At the same time the importance in instruments of long-term character is growing – for loans they constituted almost 99%, in case of securities their share by the end of 2012 climbed up to 88% while until 2001 in the Czech gov-

Figure 14 Structure of government debt by financial instruments at the end of 2012



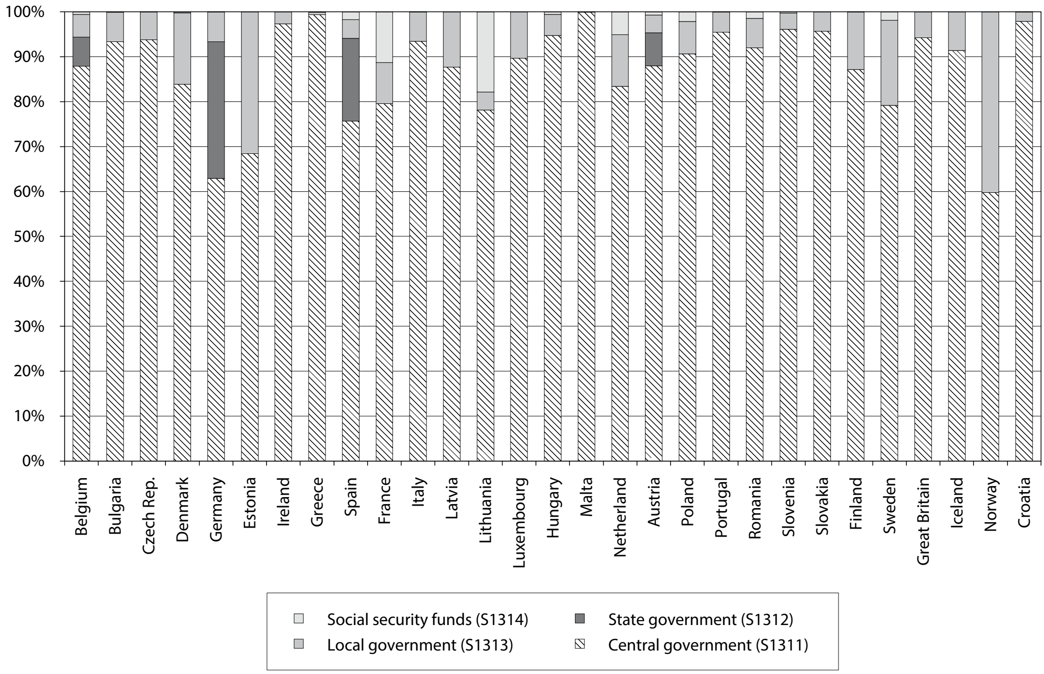
* Except for financial derivatives.
Source: Eurostat

ernment debt financing (as for one of a few European countries) short-term securities prevailed over long-term ones. It was made possible due to, among other things, relative low level of total indebtedness.

One of other important views on the structure of the government debt is its segmentation by subsectors of the government sector. The overwhelming majority of this debt is long concentrated in central government institutions which include namely organizational units of state, state funds and other out-of-budget funds and also public universities and some (centrally controlled) state-funded institutions. In the whole EU 85% of the government sector debt falls on central government institutions. One third of the EU countries (including the Czech Republic) concentrated in 2012 over 95% of its government debts in the sector of central government institutions (see Figure 15). Local government indebtedness was more obvious in countries with a strong tradition of regional self-administrative units, especially then in the states with federative system (e.g. Germany). Debts of local governments show higher representation also in so far little indebted Northern countries and the Baltics – in Estonia they made in 2012 almost one third of debt of the general government sector of this country. Relatively marked disparities in the share of total government debt concentrated by local governments can be attributed, among other things, to the relative size of local budgets (in Denmark or Sweden they make more than a half of expenditures of general government sector while in Austria or Portugal one seventh and in the CR one fourth).

To more marked increase of debt of the whole government sector contribute except for central government institutions also local (or state) governments. While between the year 2008 and 2012 the amount of central government (S1311) debt (expressed in euro) in the EU countries increased by 46%, in case

Figure 15 Structure of government debt by subsectors of government sector at the end of 2012*



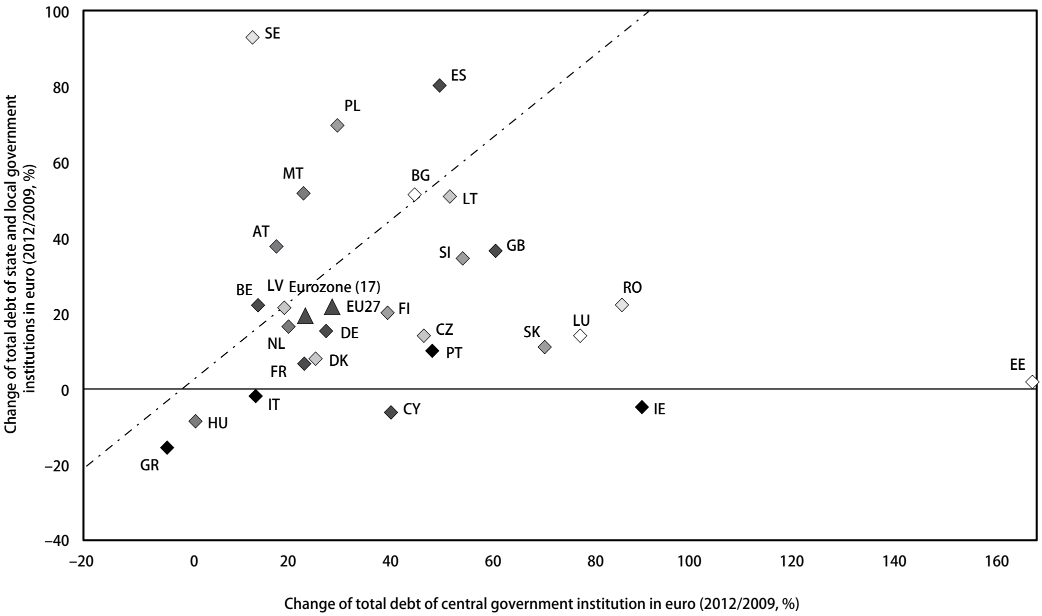
* Unconsolidated data, due to high influence of consolidation Cyprus was excluded from comparison.
Source: Eurostat

of local governments (S1313) only by one fifth. Consolidated debts of state government (S1312), relevant only in five EU countries, for the same period increased by two fifths.

Local (or state) government debts increased between 2009 and 2012 relatively most in Sweden and Spain. In Sweden, where budgets of territorial self-administrative units swallow a big part of general government expenditures, local governments participated in the increase of so far relatively low debt of the whole government sector by a complete one half. Both local and state governments in Spain were between 2009 and 2012 responsible for the growth of the already big debt of the whole government sector in almost one third. In Spain the rapid growth showed mainly expenditures of provincial governments (S1312), which doubled their debt in the period 2010–2012 (for comparison in Germany the similar debt grew by one sixth and in Austria by one third). Indebtedness of provincial governments in Spain was in 2012 almost 4.5times bigger than indebtedness of local governments (total expenditures of local governments were at the same time three times lower compared to provincial governments).

In group of highly indebted countries since 2009 indebtedness grew faster mainly in central government institutions, negative role of other government subsectors was obvious only in Spain, to lesser extent in Belgium and Austria. In period 2010–2012 consolidated local (and state) government debt exceeded the growth rate of central government debt only in seven EU countries (see countries located left and above the diagonal in Figure 16).This was mainly due to the influence of local governments (Poland, Bulgaria, Sweden), in case of Belgium and Austria also with participation of provincial governments. In spite of relatively humble increase of indebtedness of local and state governments in Germany these subsectors contributed (between years 2009

Figure 16 Relationship between the development of central and state or local governments debts (in euro), development between the years 2009 and 2012



Note: For countrie's abbreviations see Figure 2. Different colours for individual countries expresses the amount of total debt of the general government sector at the end of 2012.

Source: Eurostat

and 2012) to the general government debt increase in Germany by more than one fourth. An important role of state and local governments in Germany stems from their big share in overall general government expenditures and is stressed also by their almost 40% share in the whole debt of the government sector of Germany in 2012.

In the CR the role of local government institutions is, in comparison with EU countries less important. It applies both from the aspect of budget sizes (they contribute by one fourth to total expenditures of the government sector), the level of indebtedness (6% of weight in total government debt) and the growth rate of debt itself in the period of recession (between the years 2008 and 2012 they contributed to the growth of the whole government debt of the CR by slightly more than 2.5%). The indebtedness of regions in the CR grew more quickly and, according to non-consolidated data of the Ministry of Finance, it increased between 2008 and 2013 from CZK 14.6 bln. to CZK 26.8 bln. while in municipalities from CZK 80.1 bln. to CZK 92.2 bln. Almost half of the debt at municipal level in the CR was at the end of 2012 generated by four biggest cities, the aggregate amount of their debts showed, however, in the last years, contrary to other municipalities, no significant increase.

CONCLUSION, SUMMARY

Deep economic recession intensified across EU countries the government deficits (net borrowing) and started up the rapid growth of the government debts. These trends erupted most intensively in 2009 when it was not possible to sufficiently and quickly compensate a profound y-o-y drop of total government revenues (deeper than the drop of GDP) at the expenditure side. In the following years the governments of individual countries reacted both by efforts to reduce expenditures (this applies mainly to non-mandatory expenditures which can be adjusted faster) and by measures to strengthen revenues (most countries increased indirect tax rates and especially the Eurozone countries increased the income taxes of physical persons). The above effects along with moderate economic growth in 2010–2011 helped a significant majority of countries to hammer down high deficits of their government sector and, consequently, also to slow down the growth rate of total indebtedness. South European countries (Spain, Portugal, Italy, Cyprus) whose government debt in relation to GDP grew most as late as during 2012, were an exception.

While in 2007 only government sector in Greece, Portugal and Hungary failed to meet the Maastricht criterion of 3% deficit, a year later half of the EU countries did not meet the criterion, and in 2011 almost two thirds of the EU members (incl. the CR). Referring to traditionally strong economies in both 2011 and 2012 this criterion was performed only by Northern European countries, Luxemburg and two of Czech neighbours (Austria and Germany). The growth rate of the government debt (in relation to GDP) between 2008 and 2011 in the whole EU exceeded the growth rate in Eurozone. Within the Eurozone the Maastricht debt criterion was continuously exceeded by five member countries – Greece, Italy, Belgium, Austria and Germany (save for the year 2001). Gradually, they were joined by France (since 2003), Portugal (since 2004), the Netherlands, Ireland, (since 2009) and Spain (since 2010) out of new member then Malta, Cyprus and quite recently Slovenia.

Relationship between the balance of the government sector (deficit/surplus) and economic growth was in all EU27 countries very weak, mainly in the period 2000–2008. There was a striking difference between "new" member countries, which joined EU after 2000 and "traditional" Union countries. Majority of these new countries showed obviously better results in the y-o-y growth rate of GDP than the whole EU, at the same time, however, it had (as potential Eurozone) problems to meet the Maastricht criterion concerning the government deficit. By contrast, Austria, the Benelux countries and mainly the Northern countries did not have (until the outbreak of global recession) any significant problems with its government deficits and assessed by their amounts within all EU countries markedly better ranking then by the y-o-y growth rate of GDP. The link between the GDP growth-rate and government sector deficits in the EU countries increased in the period of economic recession.

Among the European countries significant differences between relative amount of total government expenditures survive. While in Denmark expenditures of the government sector reached almost 60% of GDP, in Bulgaria they moderately exceeded one third. Above the average relative expenditures are long maintained by Northern countries, France, Belgium, Austria, and in terms of poorer Eurozone members by Greece and Italy. New Union countries show long-term lower share of government expenditures. It also applies to the expenditure of the Czech government sector whose relative expenditures were long-term below the whole EU level and, with the exception of Slovakia, they were the lowest out the whole Central European region.

The structure of the government sector expenditures showed changes. In relatively favourable period in terms of economic growth (2000–2008) across all current EU members the share of the government debts repayments (mainly in South European countries, Romania or Denmark) dropped. Government sector in this period, in contrast, more preferred investment expenditures, mainly in new member countries (the Baltics and the Balkans). In Romania the share of gross fixed capital formation in total government expenditures increased between 2000 and 2008 from 9% up to almost 17% (in the CR from 8.4% to 11.1%). Higher share of investment expenditures in new EU members can be explained by lower level of their infrastructure (transport network, environment) as well as investment stimulation by the EU policies.

In 2009 when the public budgets were most markedly affected by deep economic recession, across all EU members the share of social benefits expenditures increased. In two thirds of member countries pecuniary social benefits (other than social transfers in kind) were relatively most dynamic item, most obvious was their growth in the Baltics (e.g. in Latvia increased from 21% in 2008 to almost 29% a year later, in the CR their share in total government expenditures remained constant, just above 30%). Bigger need for expenditures on social benefits was closely linked with the impacts of economic crisis on the labour market and consequently on the household's primary income.

In period 2010 and 2012 in the whole EU the efforts to consolidate government budgets by reducing the relative weight of expenditures on the operation of the government sector (in the CR more in form of intermediate consumption, the EU countries preferred more cuts in employees' compensations) continued. Two thirds of the Union members reduced in this period also the share of investment expenditures, most in Spain (from 9.6% to 3.7%) and the CR (from 11.4% to 6.9%).

The growth of government debt in the period of recession was the driven mainly by central governments. In Spain the provincial government between 2009 and 2012 doubled their debt and along with local governments contributed to the high growth of the whole government sector by almost one third. In the CR the role of local government institutions is, in comparison with all the EU states, less important. This applies both from the aspect of the sizes of their expenditures, the level of indebtedness (6% weight in the total government debt) and the growth rate of debt itself in the period of recession (between the years 2008 and 2012 they contributed to the growth of the general government sector debt of the CR only by more than 2.5%).

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